Regular Meeting

Monday, June 9, 2025 8:00 PM
Library - CALLAWAY PUBLIC SCHOOL, 101 N Needham, Callaway, NE 68825-0188

T.R. Anderson:	Present
Rebecca Eggleston:	Present
Liana Hrupek:	Present
Rhonda Pandorf:	Present
James Phelps:	Absent
Michael Reiff:	Present

1. **Roll Call/Call To Order/Pledge of Allegiance**
   Discussion: Meeting was called to order at 8:00 PM. There were 3 guests of the public present.
2. **Excuse Absent Board Members**
   Action(s):
   Motion by Liana Hrupek, seconded by Rebecca Eggleston to excuse James Phelps from the June 9, 2025 meeting. Motion Carried.
   Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

   Voting Summary: Yea: 5, Nay: 0, Absent: 1
3. **Consent Agenda a. Approve the agenda for tonight's meeting**
   b. Approve the financial reports/claims
   c. Approve the minutes of the May 13, 2025 Regular meeting
   Action(s):
   Motion by Liana Hrupek, seconded by Rhonda Pandorf to approve the consent agenda. Motion Carried.
   Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

   Voting Summary: Yea: 5, Nay: 0, Absent: 1
   Discussion: Ace Hardware, 49.98; Amazon Capital Services, 221.24; AT&T, 117.17; Callaway Market, 444.77; Callaway True Value, 379.27; Charron Lawn Care, 4365.50; Coach Masters, 11,263.12; Country Partners, 2681.54; Custer County Chief, 65.00; ESU 10, 6082.82; ESU 10, 802.98; Great Plains

Comm., 477.77; Hinton's Lock & Alarm, 130.00; Kimball Midwest, 193.25; Landmark Implement, 337.60; Lawn Dock, 698.21; Mighty Ducts, 900.00; NCSA, 600.00; Nebraska Central Equipment, 114.02; Pretty Darn Kwik Service, 800.00; Prime Secured, 3544.65; Quill, 257.94; REP Fitness, 493.98; Student Activity, 50.14; Syndicate Publishing, 151.83; Team Physical Therapy, 1355.36; US Bank, 2333.64; Verizon Wireless, 77.91; Village of Callaway, 2927.51; Wenquist, 132.99; Bill Total: 42,050.19. Fixed Payroll: 106,950.84; Total Payroll: 205,083.92.

4. **District Celebrations**

Discussion: Grant Winners - Zac Sweet $2500 from the Callaway Community Foundation for weightroom equipment; Charmayne Popp $2000 from the Custer County Foundation for updating FCS equipment; Karen Weverka $1000 from the Custer County Foundation for TeamMates.

5. **Correspondence/Guests/Public Comment to the Board of Education**

Discussion: There was no public comment at tonight's meeting.

6. **Principal's Report**

Discussion: Mrs. Brittany Jesseph shared end of the year testing data with the board. We have shown steady growth over the past 5 years. We have also had significant improvement in attendance data. Mr. Heath Birkel updated the board on the early summer student activities and discussed potential extracurricular sponsor openings.

7. **Superintendent's Report**

7.1. Set July BOE Meeting Date & Time

Discussion: The July regular board meeting is set for July 14th at 8:00 p.m.

7.2. Buildings, Grounds, and Transportation Committee Meeting Review

Discussion: Mr. Furrow provided a tour of the facility to discuss summer project plans. Mr. Birkel has been working on organizing and displaying awards and has developed a system for keeping our plaques and trophies updated. Mr. Furrow also shared the radio communication plan with the board. Mr. Matt Stutzman researched the options for a two-way radio system and found an option that is effective and more cost effective.

7.2.1. Transportation - Radios

7.2.2. Discuss Current Projects and Discuss Future Plans

7.2.2.a. Epoxy Projects

7.3. Nutrition Discussion

Discussion: Mr. Furrow updated the board on a

discussion with our school attorney on how to handle grossly negligent lunch bills. The board also discussed lunch prices for the upcoming school year. It was decided to raise meal prices $0.10 for the 2025-26 school year. The board also discussed a $20,000 transfer from the general fund to the nutrition fund to cover expenses incurred during the summer school session.

7.3.1. Debrief on Unpaid Lunch Bills and Future Plans

7.3.2. Nutrition Fund Transfer

7.3.3. Lunch Prices 25-26

7.4. Review of Curriculum, Americanism, and Multicultural Committee Meeting
Discussion: Mr. Furrow and the Curriculum committee informed the board of the Nebraska State Standards that were in tonight's action items for approval as our curriculum in all academic areas. This was done to make sure the school was in Rule 10 compliance. A folder of artifacts for both multicultural education and evidence that we are complying with the state statute on Americanism was shared as well.

7.4.1. Discuss Curriculum Adoption in Tonight's Action Items

7.4.2. Discuss Collection of Multicultural and Americanism Artifacts

7.5. Review Policy on Board Ethics - 202.01
Discussion: Mr. Mike Reiff, board president, and Mr. Furrow reviewed the school policy on board ethics with the board. This is done as an annual reminder of a board member's duties when they are convened as a board and their responsibilities when they are in public.

7.6. State Reports Update
Discussion: Mr. Furrow debriefed the board on the state reports that are coming due this month.

7.7. First Read Policies
Discussion: Discussion was held on the slate of 1st read policies for tonight's approval. It was noted that in many policies principal was changed to superintendent to better reflect how our school operates.

7.7.1. 705.01 - Local, State, and Federal or Miscellaneous Revenue

7.7.2. 705.02 - Usage Fees, Admissions, and Royalties

7.7.3. 705.03 Free Admission Passes

7.7.4. 707.03 - Expense Authorization and Reimbursement

7.7.5. 708.01 - Insurance Program

7.7.6. 801.02 - Special Education Student Transportation

7.7.7. 801.07 - Summer School Program Transportation Service
7.7.8. 801.09 - Transportation of Non-school Groups
7.7.9. 802.06 - Vending Machines
7.7.10. 803.01 - Photocopying Services
7.7.11. 900.01 - Objectives of Buildings and Sites
7.7.12. 902.01 - Buildings and Sites Long Range Planning
7.7.13. 902.02 - Construction Plans and Specifications
7.7.14. 902.03 - Site Aquisition
7.7.15. 902.05 - Construction Management at Risk School Construction Alternative
7.7.16. 902.06 - Design-Build School Construction Alternative
7.7.17. 903.02 - Access to Buildings
7.7.18. 903.03 - Maintenance Schedule
7.7.19. 903.04 - Requests for Improvements
7.7.20. 903.04 - Requests for Improvements
7.7.21. 903.06 - Buidlings and Grounds Records and Reports
7.7.22. 903.07 - Traffic and Parking Procedures
7.7.23. 903.08 - Vandalism
7.7.24. 903.09 - Energy Conservation
7.7.25. 905.03 - Warning Systems
7.7.26. 905.05 - Hazardous Materials
7.7.27. 905.10 - Asbestos Control
7.7.28. 1001.00 - Principles and Objectives for Community Relations
7.7.29. 1004.02 - News Conferences and Interviews
7.7.30. 1004.03 - Live Broadcast or Videotaping
7.7.31. 1005.02 - Parent Relations Goals
7.7.32. 1005.05 - Community Involvement in Decision Making
7.7.33. 1005.06 - Community Resource Persons and Volunteers
7.8. Second Read Policies

7.8.1. 403.07 - Employee Use of Social Networks

7.8.2. 502.04 - Attendance Center Assignment

7.8.3. 502.11 - Assignment of Continuing Students to Class

7.8.4. 503.06 - Students of Legal Age

7.8.5. 504.02 - Student Involvement in Decision Making

7.8.6. 504.13 - Use of Metal Detectors

7.8.7. 504.23 - Suicide Awareness and Assessment

7.8.8. 506.03 - Student Government

7.8.9. 506.04 - Student Advisory Councils

7.8.10. 506.07 - Student Performances

7.8.11. 507.03 - Student Photographs

7.8.12. 507.04 - Student Library Circulation Records

7.8.13. 508.10 - Referral of Students to Other Agencies

7.8.14. 508.11 - Defibrillators

7.8.15. 602.03 - Open or Closed Campus

7.8.16. 603.03 - Curriculum Guides and Course Outlines

7.8.17. 604.16 - Use of Artificial Intelligence in the School

7.8.18. 604.02 - Summer School Instruction

7.8.19. 604.06 - Physical Education

7.8.20. 604.07 - Career Education

7.8.21. 604.08 - Driver Education

7.8.22. 604.13 - Promoting Student Resilience

7.8.23. 604.14 - Reading Instruction and Improvement

7.8.24. 604.15 - Information Relating to Dyslexia

7.8.25. 605.02 - Alternative Education Program

7.8.26. 605.06 - English as a Second Language

7.8.27. 606.04 - Technology and Instructional Materials

7.8.28. 606.07 - District Website

7.8.29. 606.09 - Textbook Loans to Children Enrolled in Private Schools

7.8.30. 607.03 - Animals in the Classroom

7.8.31. 607.07 - Planning and Record-Keeping by Teachers

7.8.32. 607.08 - School Volunteers

7.8.33. 607.09 - Service animals and Therapy Dogs

7.8.34. 608.01 - Student Guidance and Counseling Program

7.8.35. 608.02 - Student Health Services

7.8.36. 609.01 - Evaluation of Instructional Programs

7.8.37. 611.06 - Class Rankings and Grade Point Average

7.8.38. 611.08 - Early Graduation

7.8.39. 611.09 - Commencement

7.8.40. 612.08 - Least Restrictive Environment

7.8.41. 612.15 - Access to Instructional Materials

7.8.42. 612.16 - Over-Identification and Disproportionality

7.8.43. 612.17 - Prohibition on Mandatory Medication

8. **Committee/AD/IPM Reports**

9. **Past Business (Discussion Items)**

10. **Past Business (Action Items)**

11. **New Business (Discussion Items)**

12. **New Business (Action Items)**

12.1. Food Service Transfer

Action(s):
Motion by Liana Hrupek, seconded by T.R. Anderson to approve a $20,000 transfer from the General Fund to the Food Service Fund. Motion Carried.

Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

Voting Summary: Yea: 5, Nay: 0, Absent: 1

12.2. Lunch Prices for the 2025-2026 School Year

Action(s):
Motion by Rhonda Pandorf, seconded by Rebecca Eggleston to approve the following lunch prices for the 2025-2026 school year: Breakfast: $2.50, Milk: $0.45, Seconds: $0.80, Juice: $0.40, PK-6 Lunch: $2.95, 7-12 Lunch: $3.10, Adult Lunch: $4.25, and Snacks: $10/month. Motion Carried.

Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

Voting Summary: Yea: 5, Nay: 0, Absent: 1

12.3. Approve Kitchen Epoxy Project - Depreciation Fund

Action(s):
Motion by T.R. Anderson, seconded by Liana Hrupek to approve the payment of $7,400 from the depreciation fund to Epoxi It LLC. Motion Carried.

Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

Voting Summary: Yea: 5, Nay: 0, Absent: 1

12.4. Adoption of Standards

Action(s):
Motion by Rhonda Pandorf, seconded by T.R. Anderson to adopt the following standards: the Nebraska 2024 Science Standards, the Nebraska 2021 ELA Standards, the Nebraska 2023 Math Standards, the Nebraska 2019 Social Studies Standards, the Nebraska 2014 Music Standards, the Nebraska 2014 Media Arts Standards, the Nebraska 2014 Visual Arts Standards, the Nebraska 2016 Physical Education Standards, the Nebraska 2019 World Language Standards, the Nebraska 2024 Computer Science and Technology Standards, the Nebraska 2024 Agriculture, Food, and Natural Resources Program of Study Standards, the Nebraska 2024 Business, Marketing, and Management Program of Study Standards, the Nebraska 2024 Communication and Information Program of Study Standards, the Nebraska 2024 Health Sciences Program Study of Standards, the Nebraska 2024 Human Science and Education Program of Study Standards, the Nebraska 2024 Skilled and Technical Sciences Program of Study Standards,

the Nebraska 2023 Middle School Introduction to Ag Standards, the Nebraska 2023 Middle School Careers and Literacy of Ag Standards, the Nebraska 2023 Family Consumer Science 7th Grade Standards, and the Nebraska 2023 Family Consumer Science 8th Grade Standards. Motion Carried.

Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

Voting Summary: Yea: 5, Nay: 0, Absent: 1

12.4.1. Nebraska 2024 Science Standards

12.4.2. Nebraska 2021 ELA Standards

12.4.3. Nebraska 2023 Math Standards

12.4.4. Nebraska 2019 Social Studies Standards

12.4.5. Nebraska 2014 Music Standards

12.4.6. Nebraska 2014 Media Arts Standards

12.4.7. Nebraska 2014 Visual Arts Standards

12.4.8. Nebraska 2016 Physical Education Standards

12.4.9. Nebraska 2019 World Language Standards

12.4.10. Nebraska 2024 Computer Science and Technology Standards

12.4.11. Nebraska 2024 Agriculture, Food, and Natural Resources Program of Study Standards

12.4.12. Nebraska 2024 Business, Marketing, and Management Program of Study Standards

12.4.13. Nebraska 2024 Communication and Information Program of Study Standards

12.4.14. Nebraska 2024 Health Sciences Program of Study Standards

12.4.15. Nebraska 2024 Human Science and Education Program of Study Standards

12.4.16. Nebraska 2024 Skilled and Technical Sciences Program of Study Standards

12.4.17. Nebraska 2023 Middle School Introduction to Ag Standards

12.4.18. Nebraska 2023 Middle School Careers and Literacy of Ag Standards

12.4.19. Nebraska 2023 Family Consumer Science 7th Grade Standards

12.4.20. Nebraska 2023 Family Consumer Science 8th Grade Standards

12.5. Approve First Read Policies

Action(s):

Motion by Rebecca Eggleston, seconded by Rhonda Pandorf to remove 7.7.19 - 903.04 Requests for Improvements from the first read policies above and approve the first read policies as presented previously in the agenda. Motion Carried.

Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

Voting Summary: Yea: 5, Nay: 0, Absent: 1

12.6. Approve the Second Read Policies

Action(s):

Motion by T.R. Anderson, seconded by Liana Hrupek to approve the second read policies as presented previously in the agenda. Motion Carried.

Voting Detail:

T.R. Anderson:	Yea
Rebecca Eggleston:	Yea
Liana Hrupek:	Yea
Rhonda Pandorf:	Yea
James Phelps:	Absent
Michael Reiff:	Yea

Voting Summary: Yea: 5, Nay: 0, Absent: 1

13. **Board Report**

14. **Executive Session***

15. **Personnel**

16. **Adjournment**

Discussion: Meeting adjourned at 9:25 PM.

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Board Secretary

Batch Description: 06092025 General Bills Processing Month: 06/2025 Credit Card Vendor ID: End of Fiscal Year Expense Invoices:

Vendor ID: ACEHAR **ACE HARDWARE** **PO Number:** **Invoice Number: 115411** **Amount: 49.98**
Description: Maint/Jan Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 610 000 000	Maint/Jan Supplies		49.98		N	

Vendor ID: AMAZON **Amazon Capital Services, Inc** **PO Number:** **Invoice Number: 14TT-9PG4-3RXW** **Amount: 80.80**
Description: Office Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 610 000 000	Office Supplies		80.80		N	

Vendor ID: AMAZON **Amazon Capital Services, Inc** **PO Number:** **Invoice Number: 1HRW-WKR9-JR76** **Amount: 99.26**
Description: Summer School Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1300 610 000 000	Summer School Supplies		99.26		N	

Vendor ID: AMAZON **Amazon Capital Services, Inc** **PO Number:** **Invoice Number: 1MDV-4KJG-4JCX** **Amount: 14.20**
Description: Office Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 610 000 000	Office Supplies		14.20		N	

Vendor ID: ATT3 **AT&T** **PO Number:** **Invoice Number: 20250606** **Amount: 117.17**
Description: Long Distance Services Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 000	Long Distance Services		117.17		N	

Vendor ID: CHARRONLAW **Charron Lawn Care & Sprinkler Repair** **PO Number:** **Invoice Number: 20250606** **Amount: 4,365.50**
Description: Dethatch/Aerate/1st Fert Application Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 4,365.50
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Dethatch/Aerate/1st Fert Application		4,365.50	4,365.50	N	

Vendor ID: COACHMASTE **Coach Masters, Inc.** **PO Number:** **Invoice Number: 4870** **Amount: 11,263.12**
Description: Work Done to Coach Bus Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 350 000 000	Work Done to Coach Bus		11,263.12		N	

Vendor ID: CUSTER **CUSTER CO CHIEF** **PO Number:** **Invoice Number: 20250606** **Amount: 65.00**
Description: Custer Co Chief Subscription Renewal Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00

Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2220 640 000 000	Custer Co Chief Subscription Renewal		65.00		N	

Vendor ID: ESU10 **ESU #10** **PO Number:** **Invoice Number: 20250606** **Amount: 6,885.80**

Description: May Charges Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00

Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2151 591 001 000	Audio - Sec		28.53		N	
01 2151 591 002 000	Audio - Elem		28.53		N	
01 2152 591 002 000	Audio - Ages 3-4		7.13		N	
01 2153 591 002 000	Audio - Birth-2		7.13		N	
01 2161 591 001 000	OT - Sec		529.60		N	
01 2161 591 002 000	OT - Elem		529.60		N	
01 2162 591 002 000	OT - Ages 3-4		132.40		N	
01 2163 591 002 000	OT - Birth-2		132.40		N	
01 2141 591 001 000	Psych - Sec		1,117.30		N	
01 2141 591 002 000	Psych - Elem		1,117.30		N	
01 2142 591 002 000	Psych - Ages 3-4		279.33		N	
01 2143 591 002 000	Psych - Birth-2		279.33		N	
01 1200 591 001 000	SPED Super - Sec		452.67		N	
01 1200 591 002 000	SPED Super - Elem		452.67		N	
01 1291 591 002 000	SPED Super - Ages 3-4		119.45		N	
01 1292 591 002 000	SPED Super - Birth-2		119.45		N	
01 2141 591 001 000	LMHP - Sec		750.00		N	
01 2141 591 002 000	LMHP - Elem		750.00		N	
01 1200 591 001 000	Voc - Sec		52.98		N	

Vendor ID: GREAT2 **GREAT PLAINS COMM.** **PO Number:** **Invoice Number: 20250606** **Amount: 53.90**

Description: Fax Line Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00

Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 001	Fax Line		53.90		N	

Vendor ID: GREAT2 **GREAT PLAINS COMM.** **PO Number:** **Invoice Number: 20250606-0001** **Amount: 423.87**

Description: Phone/Internet Service Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00

Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 001	Phone/Internet Service		423.87		N	

Vendor ID: HINTONSLOC **Hinton's Lock & Alarm** **PO Number:** **Invoice Number: 14354** **Amount: 130.00**

Description: Work on Elem Door Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00

Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Work on Elem Door		130.00		N	

Vendor ID: KIMBALLMID **Kimball Midwest** **PO Number:** **Invoice Number: 103388371** **Amount: 193.25**
Description: Bus Barn Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	Bus Barn Supplies		193.25		N	

Vendor ID: LANDMAR **LANDMARK IMPLEMENT, INC** **PO Number:** **Invoice Number: 11906302** **Amount: 337.60**
Description: Parts for Lawn Mower Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 610 000 000	Parts for Lawn Mower		337.60		N	

Vendor ID: LAWNDOCK **Lawen Dock, The** **PO Number:** **Invoice Number: 78** **Amount: 698.21**
Description: Spring Application Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Spring Application		698.21		N	

Vendor ID: MIGHTYDUCT **Mighty Ducts** **PO Number:** **Invoice Number: 19655** **Amount: 900.00**
Description: Kitchen/Dish Exhaust Cleaning Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Kitchen/Dish Exhaust Cleaning		900.00		N	

Vendor ID: NEBRASKACE **Nebraska Central Equipment, Inc** **PO Number:** **Invoice Number: 0174208-IN** **Amount: 114.02**
Description: Bus 1 Parts Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	Bus 1 Parts		114.02		N	

Vendor ID: PRIMESECUR **Prime Secured** **PO Number:** **Invoice Number: 96574** **Amount: 3,075.49**
Description: New PoE + Switch - E-Rate Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2230 650 000 000	New PoE + Switch - E-Rate		3,075.49		N	

Vendor ID: PRIMESECUR **Prime Secured** **PO Number:** **Invoice Number: 96723** **Amount: 469.16**
Description: New PoE + Switch - E-Rate Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2230 650 000 000	New PoE + Switch - E-Rate		469.16		N	

Vendor ID: QUILL **Quill** **PO Number:** **Invoice Number: 44077751** **Amount: 257.94**

Description: Copy Paper | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1100 610 000 010	Copy Paper		257.94		N	

Vendor ID: REPFITNESS **REP Fitness** | **PO Number:** | **Invoice Number: SO658883** | **Amount: 493.98**
Description: Bumper Plates - Weight Room | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1100 610 001 070	Bumper Plates - Weight Room		493.98		N	

Vendor ID: STUDEN **STUDENT ACTIVITY FUND** | **PO Number:** | **Invoice Number: 20250606** | **Amount: 50.14**
Description: Reimb - FCS Supplies | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1100 610 001 040	Reimb - FCS Supplies		50.14		N	

Vendor ID: SYNDICATEP **Syndicate Publishing** | **PO Number:** | **Invoice Number: 22866** | **Amount: 151.83**
Description: May BOE Minutes | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2310 540 000 000	May BOE Minutes		151.83		N	

Vendor ID: TEAMPHYSIC **Team Physical Therapy** | **PO Number:** | **Invoice Number: 20250606** | **Amount: 1,355.36**
Description: May Charges | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2171 320 001 000	PT - Sec		456.00		N	
01 2171 320 002 000	PT - Elem		596.48		N	
01 2173 320 002 000	PT - Birth-2		302.88		N	

Vendor ID: VERIZO **VERIZON WIRELESS** | **PO Number:** | **Invoice Number: 20250606** | **Amount: 77.91**
Description: Student Use Cellphone | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 000	Student Use Cellphone		77.91		N	

Vendor ID: VILLAG **VILLAGE OF CALLAWAY** | **PO Number:** | **Invoice Number: 20250606** | **Amount: 97.75**
Description: May Charges | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 410 000 000	Bus Barn - W/S		28.00		N	
01 2610 621 000 000	Bus Barn - Electricity		69.75		N	

Vendor ID: VILLAG **VILLAGE OF CALLAWAY** | **PO Number:** | **Invoice Number: 20250606-0001** | **Amount: 2,761.49**

Description: May Charges | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 410 000 000	School - W/S/T		245.00		N	
01 2610 621 000 000	School - Electricity		2,516.49		N	

Vendor ID: VILLAG **VILLAGE OF CALLAWAY** **PO Number:** **Invoice Number: 20250606-0002** **Amount: 68.27**
Description: May Charges | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 410 000 000	101 S Needham - W/S/T		44.00		N	
01 2610 621 000 000	101 S Needham - Electricity		24.27		N	

Vendor ID: WENQUI **WENQUIST INC.** **PO Number:** **Invoice Number: 434601** **Amount: 118.00**
Description: EarPlug - Bus Barn | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	EarPlug - Bus Barn		118.00		N	

Vendor ID: WENQUI **WENQUIST INC.** **PO Number:** **Invoice Number: 435248** **Amount: 14.99**
Description: Pinch-Off Pliers - Bus Barn | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	Pinch-Off Pliers - Bus Barn		14.99		N	

Batch 1099 Total:	4,365.50	Batch Total:	34,783.99
Report 1099 Total:	4,365.50	Report Total:	34,783.99

Regular Meeting
Tuesday, May 13, 2025 8:00 PM Central

Library - CALLAWAY PUBLIC SCHOOL
101 N Needham
Callaway, NE 68825-0188

T.R. Anderson:	Present
Rebecca Eggleston:	Present
Liana Hrupek:	Present
Rhonda Pandorf:	Present
James Phelps:	Present
Michael Reiff:	Present

Present: 6.

1. Roll Call/Call To Order/Pledge of Allegiance
Meeting was called to order at 8:00 PM.
There were 2 guests of the public present. All Board Members were in attendance for the meeting.

2. Excuse Absent Board Members
No absent board members.

3. Consent Agenda
   a. Approve the agenda for tonight's meeting
   b. Approve the financial reports/claims
   c. Approve the minutes of the April 14, 2025 Regular meeting

Motion by Liana Hrupek, seconded by Rhonda Pandorf to approve the consent agenda. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0
Active Internet Technologies, 1096.00; Amazon Capital Services, 1174.39; AT&T, 131.34; K Brogan, 2351.50; Callaway Market, 235.40; Callaway True Value, 246.78; Country Partners Cooperative, 4330.00; Eakes Office, 107.84; ESU 10, 6085.58; ESU 10, 821.42; EVERWhite Corp, 1314.00; Farritor Auto Parts, 375.00; Fresh Ideas, 162.80; H Furrow, 1155.00; Great Plains Comm., 477.77; Grocery Kart, 99.59; Hirerights Solutions, 469.70; B Johnson, 93.96; NCS Pearson, 17.20; NCSA, 2439.00; NSTA, 150.00; Norder Supply, 12,701.20; Prime Secured, 437.28; Quill, 601.41; Read Naturally, 832.00; Russell Title & Escrow, 226.25; Syndicate Publishing, 420.78; Team Physical Therapy, 2256.12; J Trumbull, 176.40; UNK Academic Advising, 175.00; US Bank, 14,323.87; US Bank, 366.52; Verizon, 77.91; Village of Callaway, 3657.91; Wenquist, 679.19; Yandas, 101.00; Bills Total: 60,367.11. Fixed Payroll: 172,308.73; Total Payroll: 227,798.98.

4. District Celebrations
Mr. Furrow shared the overall results of our state testing improvement. The goal was set to be 710 total improvement points on NSCAS ELA, Math, and Science, and on the Junior ACT. The actual total growth ended up being 1358 points. Mr. Furrow expressed how proud he was of the

students and their efforts, but also noted that the teachers deserved a great deal of credit for the marked improvement of our students.
Mr. Birkel also noted that South Loup was the recipient of the Lee Miller Sportsmanship award for the MNAC conference. The award is based on the sportsmanship displayed by the players, coaches, and fans of all the schools in the conference and voted on by the school administrators of each school. This award is something we should be very proud of.

4.1. Testing Update

5. Correspondence/Guests/Public Comment to the Board of Education
There were no members of the public present to address the board.

6. Principal's Report
Mr. Birkel shared the events of the previous month with the board. We hosted lots of end-of-year celebrations for activities and recognized our students for their academic honors. Mr. Birkel also shared some of the fun end of the year activities with the students.

7. Superintendent's Report

7.1. Set June BOE Meeting Date & Time
The June Board meeting is set for Monday, June 9th at 8:00 p.m.

7.2. Rule 10 Recap
Mr. Furrow shared the findings of the Rule 10 visit. All violations from the review have been corrected at this time except for the board's approval of all curricular areas. This will be an action item on the June regular Board meeting.

7.3. Extra-Curricular Programs Debrief
The school board, Mr. Birkel, and Mr. Furrow shared feedback and impressions from all ceremonies and banquets from the previous month. This discussion was both a celebration and an evaluation of each program.

7.4. Report to the Board on Student FASFA Completion
Mr. Furrow shared that Mrs. Denise Sughayar reported that all seniors had either completed the FASFA or had signed the waiver to opt out of completing the FASFA.

7.5. Surplus Outdated Curricular Materials
Mr. Furrow explained to the board that there are a great deal of outdated educational materials and supplies that can be thrown away to help create cleaner and more orderly educational spaces.

7.6. Unpaid Lunch Bills Updated Plan
Mr. Furrow shared that there continues to be an issue with unpaid lunch bills. Options were discussed on how to encourage families that have not filled out the paperwork for free and reduced lunch and who have refused to make lunch program payments to rectify their balances. The board instructed Mr. Furrow to create a plan to consider, and it will be reviewed in the July board workshop

7.7. Teacher Handbook

Mr. Furrow presented an updated teacher handbook to the board for approval in tonight's meeting.

7.8. Student Handbook
Mr. Furrow presented the updated Student Handbook for approval in tonight's meeting.

7.8.1. Include Financial Literacy to Graduation Requirements
Mr. Furrow informed the board of the state statute requirement for all students to take a financial literacy course before they graduate high school. It is in tonight's action items to include this in the graduation requirements for CPS.

7.9. Classified Staff Handbook
Mr. Furrow presented the classified handbook for board approval in tonight's meeting.

7.10. Policies for First Read
Mr. Furrow noted the work of Mrs.Tiana Lisby and the Board Policy Committee in loading and reviewing all the policies that are being considered for first and final reading in tonight's meeting. Board members asked questions on any of the new policies they felt needed to be discussed. Mr. Furrow also pointed out changes in the policy on employees transporting students.

7.10.1. 403.07 - Employee Use of Social Networks

7.10.2. 502.04 - Attendance Center Assignment

7.10.3. 502.11 - Assignment of Continuing Students to Class

7.10.4. 503.06 - Students of Legal Age

7.10.5. 504.02 - Student Involvement in Decision Making

7.10.6. 504.13 - Use of Metal Detectors

7.10.7. 504.23 - Suicide Awareness and Assessment

7.10.8. 506.03 - Student Government

7.10.9. 506.04 - Student Advisory Councils

7.10.10. 506.07 - Student Performances

7.10.11. 507.03 - Student Photographs

7.10.12. 507.04 - Student Library Circulation Records

7.10.13. 508.10 - Referral of Students to Other Agencies

7.10.14. 508.11 - Defibrillators

7.10.15. 602.03 - Open or Closed Campus

7.10.16. 603.03 - Curriculum Guides and Course Outlines

7.10.17. 604.16 - Use of Artificial Intelligence in the School

7.10.18. 604.02 - Summer School Instruction

7.10.19. 604.06 - Physical Education

7.10.20. 604.07 - Career Education

7.10.21. 604.08 - Driver Education

7.10.22. 604.13 - Promoting Student Resilience

7.10.23. 604.14 - Reading Instruction and Improvement

7.10.24. 604.15 - Information Relating to Dyslexia

7.10.25. 605.02 - Alternative Education Program

7.10.26. 605.06 - English as a Second Language

7.10.27. 606.04 - Technology and Instructional Materials

7.10.28. 606.07 - District Website

7.10.29. 606.09 - Textbook Loans to Children Enrolled in Private Schools

7.10.30. 607.03 - Animals in the Classroom

7.10.31. 607.07 - Planning and Record-Keeping by Teachers

7.10.32. 607.08 - School Volunteers

7.10.33. 607.09 - Service animals and Therapy Dogs

7.10.34. 608.01 - Student Guidance and Counseling Program

7.10.35. 608.02 - Student Health Services

7.10.36. 609.01 - Evaluation of Instructional Programs

7.10.37. 611.06 - Class Rankings and Grade Point Average

7.10.38. 611.08 - Early Graduation

7.10.39. 611.09 - Commencement

7.10.40. 612.08 - Least Restrictive Environment

7.10.41. 612.15 - Access to Instructional Materials

7.10.42. 612.16 - Over-Identification and Disproportionality

7.10.43. 612.17 - Prohibition on Mandatory Medication

7.11. Policies for Second Read

7.11.1. 402.07 - Transporting of Students by Employees

7.11.2. 402.10 - Employee Political Activity

7.11.3. 402.12 - Employee Involvement in Decision Making

7.11.4. 402.14 - Employee Use of District Technology

7.11.5. 402.15 - Staff Conduct with Students

7.11.6. 402.16 - Prohibition on Aiding Sexual Abuse

7.11.7. 402.17 - Workplace Privacy

7.11.8. 402.18 - Use of School Facilities and Equipment by School Employees

7.11.9. 403.04 - Gifts to Employees

7.11.10. 403.08 - Employee Fundraising

7.11.11. 404.01 - Employee Physical Examinations

7.11.12. 404.06E1 - Harassment Complaint Form & 404.06E2 - Harassment Witness Disclosure Form

7.11.13. 404.11 Facilities for Milk Expression

7.11.14. 404.13 - School Closure Under Extraordinary Circumstances

7.11.15. 407.02 - Certificated Employee Salary Schedule Advancement

7.11.16. 408.01 - Certificated Employees Resignation

7.11.17. 408.05 - Certificated Employee Reduction-In-Force

7.11.18. 408.06 - Certificated Employee Early Retirement

7.11.19. 409.03 - Certificated Employee Mentor Teachers

7.11.20. 409.04 - Certificated Employee Publication or Creation of Materials

7.11.21. 410.02 - Certificated Employee Personal Illness Leave

7.11.22. 410.04 - Certificated Employee Bereavement Leave

7.11.23. 410.08 - Certificated Employee Unpaid Leave

7.11.24. 411.02 - Summer School Certificated Employees

7.11.25. 411.03 - Attendance Officer

7.11.26. 411.05 - Student Teachers

7.11.27. 412.02 - Support Staff Qualifications, Recruitment, and Selection

7.11.28. 412.03 - Support Staff Contracts

7.11.29. 412.04 - Support Staff Licensing Certification

7.11.30. 413.03 - Support Staff Group Insurance Benefits

7.11.31. 414.02 - Support Staff Retirement

7.11.32. 414.03 - Support Staff Suspension

7.11.33. 415.02 - Support Staff Personal Illness Leave

7.11.34. 415.04 - Support Staff Bereavement Leave

7.11.35. 415.08 - Support Staff Unpaid Leave

8. Committee/AD/IPM Reports

9. Past Business (Discussion Items)

10. Past Business (Action Items)

11. New Business (Discussion Items)

12. New Business (Action Items)

12.1. Approve Teacher Handbook for the 2025-2026 School Year
Motion by Liana Hrupek, seconded by Rhonda Pandorf to approve the Teacher Handbook for the 2025-2026 school year. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

12.2. Approve Student Handbook for the 2025-2026 School Year
Motion by T.R. Anderson, seconded by Rebecca Eggleston to approve the Student Handbook for the 2025-2026 school year. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

12.3. Approve Classified Staff Handbook for 2025-2026 School Year
Motion by Rhonda Pandorf, seconded by James Phelps to approve the Classified Staff Handbook for the 2025-2026 school year. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

12.4. Surplus Outdated Curricular Materials
Motion by Liana Hrupek, seconded by James Phelps to surplus outdated curricular materials. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

12.5. Include Financial Literacy as a Graduation Requirement
Motion by Rhonda Pandorf, seconded by T.R. Anderson to include the Financial Literacy course for 5 credits as a graduation requirement. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

12.6. Approve First Reading of New Policies
Motion by T.R. Anderson, seconded by Rebecca Eggleston to approve the first read policies as listed previously in the agenda as presented. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea,

James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

12.7. Approve Second Reading of Policies
Motion by T.R. Anderson, seconded by James Phelps to approve the second read policies as listed previously in the agenda as presented. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

12.8. Approve the Purchase of Driver's Ed Car from Arnold Public Schools
Motion by James Phelps, seconded by Liana Hrupek to approve the purchase of the driver's ed car for the amount of $5,000 to Arnold Public Schools from Depreciation Fund. Motion Carried.
T.R. Anderson: Yea, Rebecca Eggleston: Yea, Liana Hrupek: Yea, Rhonda Pandorf: Yea, James Phelps: Yea, Michael Reiff: Yea
Yea: 6, Nay: 0

13. Board Report

14. Executive Session*

15. Personnel

16. Adjournment

District Financial Statement

Financial Statement

	Date	General	Lunch	Activity	Bobcat
Beginning Balance	**5/1/2025**	$1,246,474.18	$17,684.65	$81,793.08	$27,957.75
Recenue Received		$1,143,484.38	$13,214.99	$20,363.17	$998.88
Expenditures		$385,366.83	$20,343.10	$27,524.61	$3,979.35
Ending Balance	**5/31/2025**	$2,004,591.73	$10,556.54	$74,631.64	$24,977.28

	Date	Depreciation Fund	Employee Benefit	Building
Beginning Balance	**5/1/2025**	$58,773.27	$27,286.18	$28,477.77
Recenue Received		$88.00	$44.85	$17,190.16
Expenditures		$12,599.30	$0.00	$2,500.00
Ending Balance	**5/31/2025**	$46,261.97	$27,331.03	$43,167.93

These are sub accounts in the General Fund

	Date	52 Wk CDARS	2 Yr CDARS
Ending Balance	**5/31/2025**	$512,267.85	$513,458.04

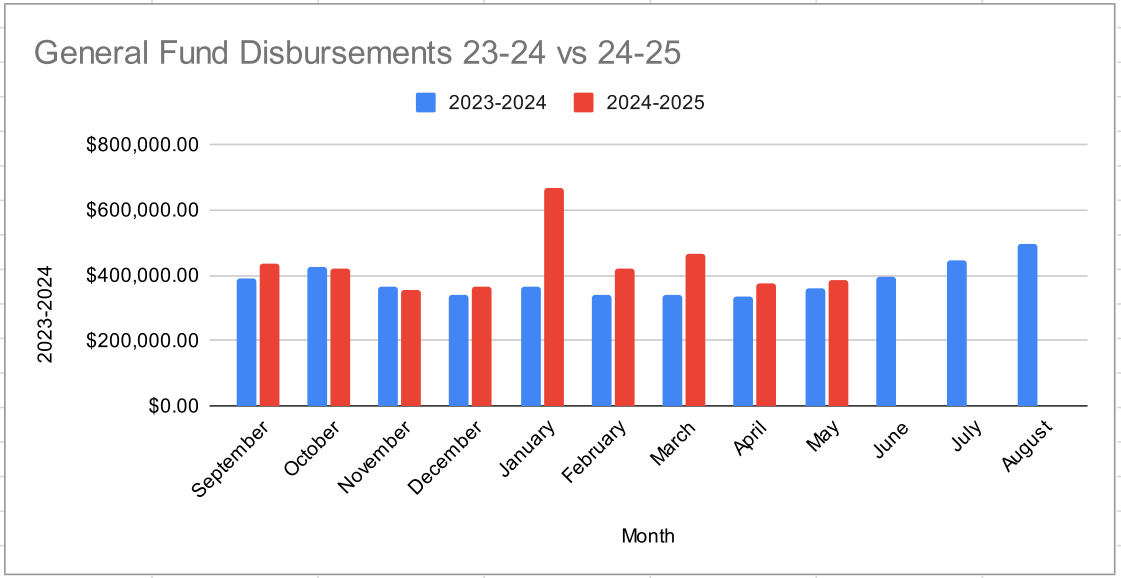
Line of Credit

	Date	General Loan
Beginning Balance	**5/1/2025**	$0.00
Debits		
Credits		
Ending Balance	**5/31/2025**	$0.00

Fund	Budget Amount	YTD $ Spent	% of Budget
General	$5,060,890.00	$3,437,390.36	67.92%
Lunch	$249,000.00	$190,264.89	76.41%
Building	$376,811.00	$330,184.72	87.63%
Depreciation	$175,461.00	$67,503.53	38.47%
Employee Benefit	$58,256.00	$30,232.00	51.90%
Activity	$168,199.92	$216,611.51	
Bobcat	$197,452.08	$77,581.07	80.46%
QCPUF	$30,161.79	$30,161.79	100.00%
	Total Spent	$4,379,929.87	

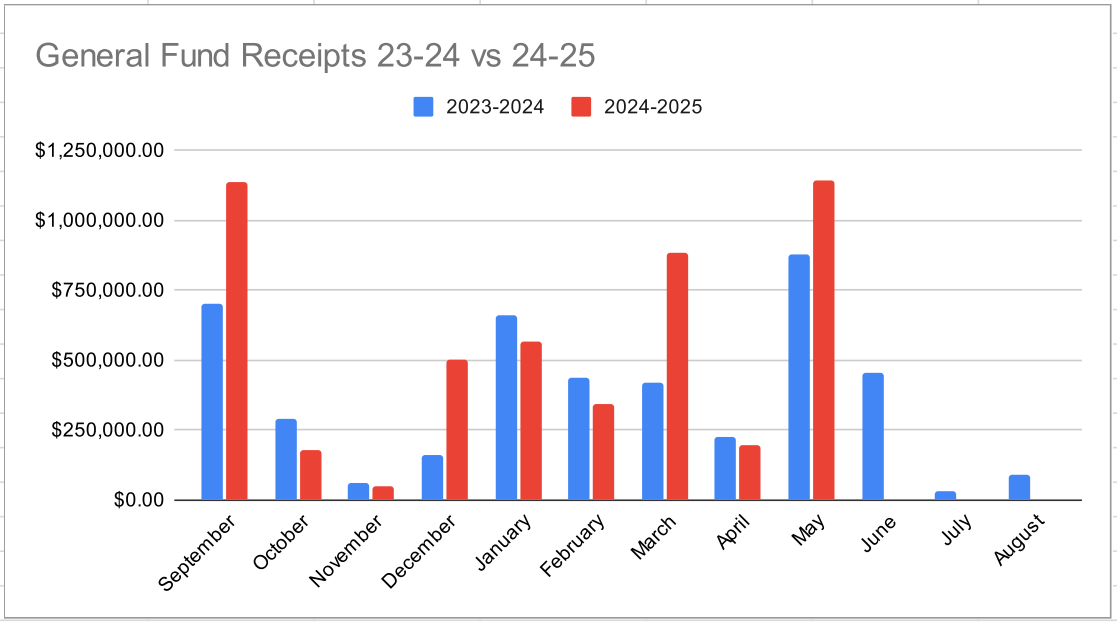
Fiscal Year 2024-2025 - Depreciation Allocation Amounts					
Ending Month	Fleet	School Improvement	Kitchen Updates	Balance	Allocation Purpose
September 2024	$112,386.43	$0.00	$0.00	$112,386.43	Depreciation funds earmarked for updating and maintaining the transportation fleet.
October 2024	$112,577.33	$0.00	$0.00	$112,577.33	Depreciation funds earmarked for updating and maintaining the transportation fleet.
November 2024	$112,756.22	$0.00	$0.00	$112,756.22	Depreciation funds earmarked for updating and maintaining the transportation fleet.
December 2024	$112,953.93	$0.00	$0.00	$112,953.93	Depreciation funds earmarked for updating and maintaining the transportation fleet.
January 2025	$33,145.80	$0.00	$80,000.00	$113,145.80	Depreciation funds earmarked for updating and maintaining the transportation fleet. $80,000 of these funds have been reallocated to the kitchen updates we have planned for this year.
February 2025	$33,319.39	$0.00	$80,000.00	$113,319.39	Depreciation funds earmarked for updating and maintaining the transportation fleet and kitchen updates.
March 2025	$33,511.88	$0.00	$80,000.00	$113,511.88	Depreciation funds earmarked for updating and maintaining the transportation fleet and kitchen updates.
April 2025	$33,677.50	$0.00	$25,095.77	$58,773.27	Depreciation funds earmarked for updating and maintaining the transportation fleet and kitchen updates.
May 2025	$21,765.50	$0.00	$24,496.47	$46,261.97	Depreciation funds earmarked for updating and maintaining the transportation fleet and kitchen updates.
June 2025					
July 2025					
August 2025					

General Fund Disbursements			
Month	2023-2024	2024-2025	Difference
September	$390,166.30	$433,615.53	$43,449.23
October	$426,129.75	$422,106.19	-$4,023.56
November	$364,858.54	$356,744.52	-$8,114.02
December	$339,577.65	$365,799.81	$26,222.16
January	$366,945.53	$665,987.06 [1]	$299,041.53
February	$341,508.56	$419,179.87	$77,671.31
March	$338,161.70	$464,775.73	$126,614.03
April	$337,134.55	$375,009.05	$37,874.50
May	$359,237.28	$385,366.83	$26,129.55
June	$397,110.75		
July	$447,809.70		
August	$495,769.95		
		Yearly Difference	$624,864.73



General Fund Receipts			
Month	2023-2024	2024-2025	Difference
September	$698,584.87	$1,133,278.67	$434,693.80
October	$291,656.90	$180,007.91	-$111,648.99
November	$61,244.39	$51,043.09	-$10,201.30
December	$161,257.52	$501,751.14 [2]	$340,493.62
January	$660,421.90	$566,716.78	-$93,705.12
February	$437,637.75	$344,169.58	-$93,468.17
March	$419,335.74	$880,798.89	$461,463.15
April	$223,452.22	$194,980.13	-$28,472.09
May	$877,982.15	$1,143,484.38	$265,502.23
June	$456,800.13		
July	$31,560.00		
August	$91,431.45		
		Yearly Difference	$1,164,657.13

**This includes the CDARS Transfers from other accounts to general for $330,000



[1] Line of Credit Payments included here

[2] Partially due to Line of Credit assistance

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
8 Revenue						
01 1100 1	Local Property Tax - Custer County	3,200,105.00	457,026.58	1,973,035.77	1,227,069.23	61.66
01 1100 2	Local Property Tax - Dawson County	0.00	9,292.05	36,896.93	(36,896.93)	0.00
01 1125 1	Motor Vehicle Tax- Custer County	115,000.00	7,611.63	110,223.42	4,776.58	95.85
01 1125 2	Motor Vehicle Tax - Dawson County	0.00	128.06	965.49	(965.49)	0.00
01 1140	Interest/Penalties on Taxes	0.00	0.00	8,276.53	(8,276.53)	0.00
01 1510	Interest	6,270.00	1,163.28	29,123.73	(22,853.73)	464.49
01 1911	Local License Fees	900.00	0.00	900.00	0.00	100.00
01 1990	OTHER LOCAL RECEIPTS	1,000.00	1,565.99	1,565.99	(565.99)	156.60
01 2110	COUNTY FINES AND LICENSE FEES	7,315.00	950.64	8,053.42	(738.42)	110.09
01 2130	Other County Receipts	1,500.00	0.00	79.94	1,420.06	5.33
01 3110	State Aid	256,294.00	25,629.00	230,661.00	25,633.00	90.00
01 3120	Special Education Programs (School Age)	476,215.00	0.00	279,470.00	196,745.00	58.69
01 3125	Special Education Trans. (School Age)	20,000.00	0.00	0.00	20,000.00	0.00
01 3130	HOMESTEAD EXPEMPTION	0.00	4,497.95	13,318.94	(13,318.94)	0.00
01 3131	Property Tax Credit	0.00	634,661.24	1,269,322.48	(1,269,322.48)	0.00
01 3133	Nameplate Tax	2,000.00	303.48	2,284.00	(284.00)	114.20
01 3180	Pro-Rate Motor Vehicle	6,000.00	59.05	5,512.62	487.38	91.88
01 3400	State Apportionment	25,000.00	0.00	53,810.20	(28,810.20)	215.24
01 3512	Distance Education Incentive	2,833.00	0.00	5,696.70	(2,863.70)	201.08
01 3535	Payments for High Ability Learners	2,833.50	0.00	2,634.00	199.50	92.96
01 3551	NE State Career & Technical Education	0.00	0.00	0.00	0.00	0.00
01 3599	Other State Categorical Programs	2,833.50	0.00	15,048.04	(12,214.54)	531.08
01 4310	REAP (Small Rural School Achievement)	10,000.00	0.00	36,335.15	(26,335.15)	363.35
01 4505	Title I, Part A NCLB	18,000.00	0.00	21,900.00	(3,900.00)	121.67
01 4509	Title II-A	1,000.00	300.00	1,500.00	(500.00)	150.00
01 4510	Title IV Part A-Student Support and Enri	2,700.00	0.00	2,750.00	(50.00)	101.85
01 4516	IDEA Preschool (619) Base Allocation	1,800.00	0.00	2,037.00	(237.00)	113.17
01 4518	IDEA Base E/P	38,200.00	0.00	42,268.00	(4,068.00)	110.65
01 4525	Perkins - Federal Vocational	0.00	0.00	1,200.00	(1,200.00)	0.00
01 4530 1	FEDERAL GRANT STIPENDS	0.00	0.00	150.00	(150.00)	0.00
01 4708	Medicaid in Public Schools	5,000.00	0.00	5,131.12	(131.12)	102.62
01 4709	Medicaid Administrative Activities	5,000.00	0.00	2,783.69	2,216.31	55.67
01 4988	ESSER ELO After School	7,500.00	0.00	24,980.00	(17,480.00)	333.07
01 4989	ESSER ELO Summer School	7,500.00	0.00	36,822.00	(29,322.00)	490.96
01 4998	ESSER III	0.00	0.00	17,762.00	(17,762.00)	0.00
01 5200	TRANS FROM OTH FUNDS	0.00	0.00	30,161.79	(30,161.79)	0.00
01 5690	Other Non-Revenue Receipts	0.00	258.94	2,758.94	(2,758.94)	0.00
01 9000	Non-Program Receipts	0.00	0.00	330,000.00	(330,000.00)	0.00
8 Revenue		4,222,799.00	1,143,447.89	4,605,418.89	(382,619.89)	109.06
9 Expenditure						
01 1100 111 000 000	Salary -Teacher/Professional Staff	173,508.00	13,616.34	121,537.26	51,970.74	70.05
01 1100 111 001 000	Salary - Teacher/Prof Staff 7-12	484,349.00	40,741.80	363,896.00	120,453.00	75.13
01 1100 111 002 000	Salary - Teacher/Prof Staff Elem	360,032.00	29,768.52	266,667.97	93,364.03	74.07
01 1100 112 000 000	Salary - Para Educators	4,000.00	930.00	4,702.50	(702.50)	117.56
01 1100 112 001 000	Salary - Para Educators 7-12	33,500.00	3,204.45	29,474.44	4,025.56	87.98
01 1100 112 002 000	Salary - Para Educators Elem	1,012.00	143.00	2,156.00	(1,144.00)	213.04
01 1100 123 000 000	Salary - Substitutes	6,650.00	1,080.00	5,171.25	1,478.75	77.76
01 1100 123 001 000	Salary - Substitutes 7-12	9,490.00	1,485.00	14,210.81	(4,720.81)	149.75
01 1100 123 002 000	Salary - Substitutes Elem	27,278.00	2,839.11	12,841.85	14,436.15	47.08
01 1100 151 000 000	X DUTY	10,122.00	1,488.41	26,138.19	(16,016.19)	258.23
01 1100 151 001 000	X DUTY	101,671.00	8,299.14	84,275.75	17,395.25	82.89
01 1100 211 000 000	Group Insurance - Teachers/Prof	67,029.00	4,070.43	42,884.96	24,144.04	63.98
01 1100 211 001 000	GROUP INS - TEACHERS/PROFESSIONAL	187,122.00	12,549.44	111,699.70	75,422.30	59.69
01 1100 211 002 000	GROUP INS - TEACHERS/PROFESSIONAL	151,224.00	13,156.27	118,232.89	32,991.11	78.18
01 1100 212 001 000	Group Insurance - Para Educators 7-12	11,162.00	930.13	8,023.28	3,138.72	71.88
01 1100 221 000 000	Social Security - Teachers/Prof	14,539.00	1,147.33	11,194.90	3,344.10	77.00
01 1100 221 001 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	45,938.00	3,682.71	33,675.90	12,262.10	73.31
01 1100 221 002 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	28,843.00	2,245.83	20,117.37	8,725.63	69.75
01 1100 222 000 000	Social Security - Para Educators	305.00	71.15	359.79	(54.79)	117.96
01 1100 222 001 000	Social Security - Para Educators 7-12	1,917.00	241.17	2,220.50	(303.50)	115.83
01 1100 222 002 000	Social Security - Para Educators Elem	1,453.00	10.94	164.93	1,288.07	11.35
01 1100 223 000 000	Social Security - Substitutes	795.00	82.65	395.63	399.37	49.76
01 1100 223 001 000	Social Security - Substitutes 7-12	1,195.00	113.62	1,051.35	143.65	87.98
01 1100 223 002 000	Social Security - Substitutes Elem	2,204.00	217.19	982.39	1,221.61	44.57
01 1100 231 000 000	Retirement - Teachers/Prof	16,130.00	1,492.02	14,587.15	1,542.85	90.43

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
01 1100 231 001 000	RETIREMENT - TEACHERS/PROFESSIONAL	47,911.00	4,821.70	43,085.25	4,825.75	89.93
01 1100 231 002 000	RETIREMENT - TEACHERS/PROFESSIONAL	35,250.00	2,940.47	26,340.87	8,909.13	74.73
01 1100 232 001 000	Retirement - Para Educators 7-12	2,037.00	316.53	2,911.41	(874.41)	142.93
01 1100 232 002 000	Retirement - Para Educators Elem	2,000.00	0.00	0.00	2,000.00	0.00
01 1100 233 000 000	RETIREMENT - SUBSTITUTES	0.00	29.64	87.44	(87.44)	0.00
01 1100 233 001 000	RETIREMENT - SUBSTITUTES	0.00	14.82	88.91	(88.91)	0.00
01 1100 233 002 000	RETIREMENT - SUBSTITUTES	472.00	18.39	132.95	339.05	28.17
01 1100 237 000 000	LB 89 RETIREMENT	4,683.00	0.00	0.00	4,683.00	0.00
01 1100 237 001 000	LB 89 RETIREMENT	15,457.00	0.00	0.00	15,457.00	0.00
01 1100 237 002 000	LB 89 RETIREMENT	9,500.00	0.00	0.00	9,500.00	0.00
01 1100 251 000 000	Tuition Reimbursement Teachers	0.00	2,351.50	2,351.50	(2,351.50)	0.00
01 1100 271 000 000	Work Comp - Teacher/Prof	14,575.00	0.00	(2,356.00)	16,931.00	(16.16)
01 1100 330 000 000	Employee Development and Training	0.00	0.00	40.00	(40.00)	0.00
01 1100 330 001 000	Employee Development and Training	0.00	0.00	160.00	(160.00)	0.00
01 1100 330 002 000	Employee Development and Training	0.00	0.00	120.00	(120.00)	0.00
01 1100 333 002 000	Mileage paid to staff	0.00	0.00	89.46	(89.46)	0.00
01 1100 352 000 000	Other Prof/Tech Services	0.00	0.00	435.00	(435.00)	0.00
01 1100 580 000 000	Travel	3,117.00	0.00	102.73	3,014.27	3.30
01 1100 610 000 000	Instructional Supplies - General	10,000.00	63.20	5,754.85	4,245.15	57.55
01 1100 610 000 010	Copier & Printer Supplies	25,975.00	461.81	14,623.08	11,351.92	56.30
01 1100 610 000 012	General Supplies - Music	6,000.00	101.00	5,541.98	458.02	94.03
01 1100 610 000 090	General Supplies - Art	2,078.00	0.00	143.22	1,934.78	6.89
01 1100 610 001 000	General Supplies - 7-12	11,429.00	1,444.96	3,579.30	7,849.70	32.37
01 1100 610 001 040	General Supplies - FCS	6,000.00	355.94	2,879.25	3,120.75	48.56
01 1100 610 001 050	General Supplies - Science	3,156.00	152.09	1,542.92	1,613.08	82.40
01 1100 610 001 070	General Supplies - Weight Room	0.00	538.26	1,985.67	(1,985.67)	0.00
01 1100 610 001 080	General Supplies - Ag	6,000.00	0.00	7,194.15	(1,194.15)	144.13
01 1100 610 002 000	General Supplies - Elem	55,587.00	61.93	17,038.32	38,548.68	30.65
01 1100 640 001 000	Textbooks	10,390.00	0.00	0.00	10,390.00	0.00
01 1100 640 001 050	Books & Periodicals	1,500.00	0.00	0.00	1,500.00	0.00
01 1100 640 002 000	Textbooks	10,390.00	0.00	6.99	10,383.01	0.07
01 1100 641 000 000	E-Books	2,128.00	0.00	0.00	2,128.00	0.00
01 1100 641 001 050	E-Books	250.00	0.00	0.00	250.00	0.00
01 1100 641 001 080	E-Books	500.00	0.00	0.00	500.00	0.00
01 1100 641 002 000	E-Books	2,500.00	0.00	0.00	2,500.00	0.00
01 1100 643 000 000	Web/Cloud Based Software	12,000.00	0.00	1,239.71	10,760.29	10.33
01 1100 643 001 000	Web/Cloud Based Software <$5000	500.00	0.00	255.47	244.53	51.09
01 1100 643 001 050	Web/Cloud Based Software <$5000	100.00	0.00	0.00	100.00	0.00
01 1100 643 001 080	Web/Cloud Based Software <$5000	0.00	0.00	390.00	(390.00)	0.00
01 1100 643 002 000	Web/Cloud Based Software <$5000	100.00	0.00	0.00	100.00	0.00
01 1100 650 000 000	Supplies - Technology Related <$5000	3,479.00	0.00	0.00	3,479.00	0.00
01 1100 734 000 000	Instructional Computer Hardware	20,000.00	0.00	0.00	20,000.00	0.00
01 1100 890 000 000	Other Misc Expense	500.00	0.00	0.00	500.00	0.00
1100 REGULAR INSTRUCTIONAL PROGRAMS		2,067,032.00	157,278.89	1,432,427.19	634,604.81	69.43
01 1160 110 000 000	Salary - Non-Instructional	19,180.00	1,702.46	15,702.74	3,477.26	81.87
01 1160 111 000 000	Salary -Teachers	19,147.00	1,603.74	14,433.66	4,713.34	75.38
01 1160 210 000 000	Group Insurance - Non-Instructional	13,818.00	1,075.98	10,061.32	3,756.68	72.81
01 1160 211 000 000	Group Insurance - Teacher/Prof	7,115.00	527.77	4,786.32	2,328.68	67.27
01 1160 220 000 000	Social Security - Non-Instructional	1,467.00	127.32	1,173.79	293.21	80.01
01 1160 221 000 000	Social Security - Teacher/Prof	1,467.00	115.38	1,049.38	417.62	71.53
01 1160 230 000 000	Retirement - Non-Instructional	1,824.00	168.16	1,512.53	311.47	82.92
01 1160 231 000 000	Retirement - Teacher/Prof	1,824.00	158.41	1,425.69	398.31	78.16
01 1160 237 000 000	Poverty Program Increased Retirement	1,200.00	0.00	0.00	1,200.00	0.00
01 1160 270 000 000	Work Comp - Non-Instructional	500.00	0.00	0.00	500.00	0.00
01 1160 271 000 000	Work Comp - Teachers/Prof	500.00	0.00	0.00	500.00	0.00
01 1160 610 000 000	SUPPLIES	0.00	0.00	40.00	(40.00)	0.00
1160 POVERTY PROGRAM		68,042.00	5,479.22	50,185.43	17,856.57	73.76
01 1190 111 002 000	Salary - Teachers	61,268.00	5,059.43	46,659.43	14,608.57	76.16
01 1190 112 002 000	Salary-Clerical & Paraprofessional Staff	36,667.00	3,211.89	25,875.31	10,791.69	70.57
01 1190 123 002 000	Salary - Substitutes	1,000.00	405.00	1,462.50	(462.50)	146.25
01 1190 211 002 000	Group Insurance - Teachers/Prof	27,984.00	2,289.55	20,603.75	7,380.25	73.63
01 1190 212 002 000	Group Insurance - Para Educators	11,162.00	930.13	8,371.17	2,790.83	75.00
01 1190 221 002 000	Social Security - Teachers/Prof	4,687.00	380.88	3,514.04	1,172.96	74.97
01 1190 222 002 000	Social Security - Para Educators	2,737.00	240.07	1,928.72	808.28	70.47
01 1190 223 002 000	Social Security - Substitutes	100.00	30.99	111.92	(11.92)	111.92
01 1190 231 002 000	Retirement - Teachers/Prof	5,000.00	499.76	4,608.95	391.05	92.18
01 1190 232 002 000	Retirement - Para Educators	3,587.00	317.26	2,547.30	1,039.70	71.01
01 1190 237 002 000	LB 89 RETIREMENT	2,500.00	0.00	0.00	2,500.00	0.00
01 1190 271 002 000	Work Comp - Teachers/Prof	850.00	0.00	0.00	850.00	0.00
01 1190 330 002 000	Employee Development and Training	320.00	0.00	140.00	180.00	43.75

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
01 1190 610 002 000	Supplies	2,500.00	110.29	29.02	2,470.98	1.16
01 1190 640 002 000	Textbooks	0.00	0.00	0.00	0.00	0.00
01 1190 650 000 000	Supplies - Technology Related <$5000	0.00	0.00	0.00	0.00	0.00
1190 Early Childhood Educational Programs		160,362.00	13,475.25	115,852.11	44,509.89	72.24
01 1200 111 000 000	Salary - Teachers	85,000.00	14,154.33	112,262.01	(27,262.01)	132.07
01 1200 111 001 000	SALARY-TEACHER/PROFESSIONAL STAFF	81,000.00	2,665.00	26,650.00	54,350.00	32.90
01 1200 111 002 000	SALARY-TEACHER/PROFESSIONAL STAFF	81,000.00	5,622.50	50,602.50	30,397.50	62.47
01 1200 112 000 000	Salary - Clerical & Paraprofessional	5,250.00	471.19	3,967.27	1,282.73	75.57
01 1200 112 001 000	Salary - Clerical & Paraprofessional	27,193.00	2,144.83	14,588.95	12,604.05	53.65
01 1200 112 002 000	Salary - Clerical & Paraprofessional	56,128.00	8,301.12	56,434.52	(306.52)	100.55
01 1200 123 000 000	Salary - Substitutes	10,000.00	1,560.00	7,584.42	2,415.58	75.84
01 1200 123 001 000	Salary - Substitutes	6,000.00	300.00	2,943.75	3,056.25	49.06
01 1200 123 002 000	Salary - Substitutes	7,500.00	135.00	2,885.84	4,614.16	38.48
01 1200 211 000 000	Group Insurance - Teachers/ Prof	37,500.00	2,954.72	20,491.12	17,008.88	54.64
01 1200 211 001 000	GROUP INS - TEACHERS/PROFESSIONAL	32,000.00	958.82	9,515.61	22,484.39	29.74
01 1200 211 002 000	GROUP INS - TEACHERS/PROFESSIONAL	32,000.00	1,922.07	17,235.61	14,764.39	53.86
01 1200 212 000 000	Group Insurance - Para Educators	3,900.00	99.88	924.07	2,975.93	23.69
01 1200 212 001 000	Group Insurance - Para Educators	5,000.00	188.86	1,739.72	3,260.28	34.79
01 1200 212 002 000	Group Insurance - Para Educators	7,200.00	335.76	3,092.83	4,107.17	42.96
01 1200 221 000 000	Social Security - Teachers/Prof	11,500.00	1,066.86	8,475.74	3,024.26	73.70
01 1200 221 001 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	5,500.00	195.01	1,954.21	3,545.79	35.53
01 1200 221 002 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	7,200.00	422.29	3,800.83	3,399.17	52.79
01 1200 222 000 000	Social Security - Para Educators	1,250.00	35.37	297.35	952.65	23.79
01 1200 222 001 000	Social Security - Para Educators	2,160.00	161.85	1,097.13	1,062.87	50.79
01 1200 222 002 000	Social Security - Para Educators	5,500.00	630.19	4,276.52	1,223.48	77.75
01 1200 223 000 000	Social Security - Substitutes	1,200.00	119.31	580.19	619.81	48.35
01 1200 223 001 000	Social Security - Substitutes	1,200.00	22.96	225.18	974.82	18.77
01 1200 223 002 000	Social Security - Substitutes	1,200.00	10.33	220.79	979.21	18.40
01 1200 231 000 000	Retirement - Teachers/Prof	16,087.00	1,398.12	11,088.91	4,998.09	68.93
01 1200 231 001 000	RETIREMENT - TEACHERS/PROFESSIONAL	4,350.00	263.24	2,632.42	1,717.58	60.52
01 1200 231 002 000	RETIREMENT - TEACHERS/PROFESSIONAL	9,750.00	555.38	4,998.42	4,751.58	51.27
01 1200 232 000 000	Retirement - Para Educators	1,450.00	46.54	391.88	1,058.12	27.03
01 1200 232 001 000	Retirement - Para Educators	2,750.00	210.80	1,434.49	1,315.51	52.16
01 1200 232 002 000	Retirement - Para Educators	6,500.00	812.48	5,447.12	1,052.88	83.80
01 1200 233 000 000	RETIREMENT - SUBSTITUTES	0.00	14.82	61.51	(61.51)	0.00
01 1200 233 001 000	RETIREMENT - SUBSTITUTES	125.00	0.00	44.44	80.56	35.55
01 1200 233 002 000	RETIREMENT - SUBSTITUTES	0.00	12.79	16.54	(16.54)	0.00
01 1200 237 000 000	LB 89 RETIREMENT	3,500.00	0.00	0.00	3,500.00	0.00
01 1200 237 001 000	LB 89 RETIREMENT	3,500.00	0.00	0.00	3,500.00	0.00
01 1200 237 002 000	LB 89 RETIREMENT	3,500.00	0.00	0.00	3,500.00	0.00
01 1200 271 000 000	Work Comp - Teachers/Prof	3,500.00	0.00	0.00	3,500.00	0.00
01 1200 330 001 000	Employee Development and Training	650.00	0.00	60.00	590.00	9.23
01 1200 330 002 000	Employee Development and Training	650.00	0.00	60.00	590.00	9.23
01 1200 333 001 000	Mileage paid to staff	0.00	176.40	235.20	(235.20)	0.00
01 1200 352 000 000	SPED OTHER PROF/TECH SERVICES	0.00	0.00	40,613.50	(40,613.50)	0.00
01 1200 580 000 000	SPED TRANSPORTATION	3,500.00	0.00	155.85	3,344.15	4.45
01 1200 591 001 000	SPED Supervision - Secondary	9,500.00	581.25	5,793.45	3,706.55	60.98
01 1200 591 002 000	SPED Supervision - Elementary	10,500.00	529.83	5,264.24	5,235.76	50.14
01 1200 610 000 000	SUPPLIES	10,500.00	37.93	1,033.70	9,466.30	9.84
01 1200 610 001 000	General Supplies	7,500.00	89.93	1,019.57	6,480.43	13.59
01 1200 610 002 000	General Supplies	9,500.00	832.00	2,315.97	7,184.03	24.38
01 1200 626 000 000	GAS AND OIL	0.00	0.00	114.45	(114.45)	0.00
01 1200 626 001 000	GAS AND OIL	1,000.00	0.00	0.00	1,000.00	0.00
01 1200 643 000 000	Web/Cloud Based Software <$5000	2,015.00	0.00	1,367.77	647.23	72.30
01 1200 810 001 000	DUES AND FEES	0.00	0.00	15.00	(15.00)	0.00
01 1200 890 000 000	SPED/OTHER	705.00	0.00	125.00	580.00	17.73
1200 SPECIAL EDUCATION PROGRAMS		624,413.00	50,039.76	436,135.59	188,277.41	69.86
01 1291 591 002 000	SPED Supervision - Ages 3-5	1,500.00	118.34	1,186.33	313.67	79.09
1291 SPED Supervision - Ages 3-5		1,500.00	118.34	1,186.33	313.67	79.09
01 1292 591 002 000	SPED Supervision - Ages 0-2	1,500.00	118.34	1,186.33	313.67	79.09
1292 SPED Supervision - Ages 0-2		1,500.00	118.34	1,186.33	313.67	79.09
01 1300 610 000 000	DRIVERS ED SUPPLIES	0.00	0.00	153.54	(153.54)	0.00
1300 Summer School		0.00	0.00	153.54	(153.54)	0.00
01 2120 111 000 000	GUIDANCE SALARY SEC	55,760.00	4,779.43	43,014.87	12,745.13	77.14
01 2120 211 000 000	GUIDANCE HEALTH	23,610.00	1,919.45	17,327.37	6,282.63	73.39
01 2120 221 000 000	GUIDANCE SOC SEC	4,267.00	328.54	3,019.81	1,247.19	70.77

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01 2120 231 000 000	GUIDANCE RETIREMENT	5,510.00	472.11	4,248.91	1,261.09	77.11
01 2120 237 000 000	LB 89 RETIREMENT	1,400.00	0.00	0.00	1,400.00	0.00
01 2120 271 000 000	GUIDANCE WORKCOMP	700.00	0.00	0.00	700.00	0.00
01 2120 330 000 000	Employee Development and Training	0.00	198.00	533.00	(533.00)	0.00
01 2120 580 000 000	GUIDANCE MILAGE	0.00	0.00	149.00	(149.00)	0.00
01 2120 610 000 000	GUIDANCE TESTING/Supplies	9,397.00	662.68	3,694.13	5,702.87	41.15
01 2120 626 000 000	GAS AND OIL	0.00	0.00	85.33	(85.33)	0.00
01 2120 643 000 000	Web/Cloud Based Software <$5000	0.00	0.00	234.00	(234.00)	0.00
2120 GUIDANCE SERVICES		100,644.00	8,360.21	72,306.42	28,337.58	72.54
01 2130 116 001 000	Salary - Clerical & Paraprofessional	0.00	372.00	752.00	(752.00)	0.00
01 2130 226 001 000	Salary - Clerical & Paraprofessional	0.00	28.45	57.52	(57.52)	0.00
01 2130 610 000 000	HEALTH SUPPLIES	1,250.00	167.48	762.36	487.64	60.99
01 2130 733 000 000	Equipment	0.00	0.00	1,785.83	(1,785.83)	0.00
2130 HEALTH SERVICES		1,250.00	567.93	3,357.71	(2,107.71)	268.62
01 2131 116 001 000	SALARIES - PROFESSIONAL/NON-CERT	84,000.00	0.00	0.00	84,000.00	0.00
01 2131 126 001 000	Professional Non-Certified Directors	0.00	0.00	720.00	(720.00)	0.00
01 2131 226 001 000	SOC SEC - PROF NON-CERTIFICATED	6,349.00	0.00	55.08	6,293.92	0.87
01 2131 236 001 000	RETIREMENT - PROF NON-CERT	8,200.00	0.00	0.00	8,200.00	0.00
01 2131 330 001 000	Employee Development and Training	0.00	0.00	15.00	(15.00)	0.00
01 2131 340 001 000	SPED Health Services - Secondary	0.00	93.96	248.22	(248.22)	0.00
2131 SPED Health Services School Age		98,549.00	93.96	1,038.30	97,510.70	1.05
01 2141 591 001 000	Psychology - Secondary	12,250.00	1,822.43	16,793.80	(4,543.80)	137.09
01 2141 591 002 000	Psychology - Elementary	12,250.00	1,822.43	16,793.80	(4,543.80)	137.09
2141 Psychology - School Age		24,500.00	3,644.86	33,587.60	(9,087.60)	137.09
01 2142 591 002 000	Psychology - Ages 3-5	0.00	268.11	2,698.44	(2,698.44)	0.00
2142 Psychology - Ages 3-5		0.00	268.11	2,698.44	(2,698.44)	0.00
01 2143 591 002 000	Psychology - Ages 0-2	0.00	268.11	2,698.44	(2,698.44)	0.00
2143 Psychology - Ages 0-2		0.00	268.11	2,698.44	(2,698.44)	0.00
01 2151 111 001 000	SALARY-TEACHER/PROFESSIONAL STAFF	7,956.00	699.43	6,294.87	1,661.13	79.12
01 2151 111 002 000	SALARY-TEACHER/PROFESSIONAL STAFF	25,272.00	2,221.71	19,995.39	5,276.61	79.12
01 2151 211 001 000	GROUP INS - TEACHERS/PROFESSIONAL	3,503.00	287.09	2,564.30	938.70	73.20
01 2151 211 002 000	GROUP INS - TEACHERS/PROFESSIONAL	11,127.00	911.95	8,145.56	2,981.44	73.21
01 2151 221 001 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	609.00	52.83	475.53	133.47	78.08
01 2151 221 002 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	1,934.00	167.86	1,510.88	423.12	78.12
01 2151 231 001 000	RETIREMENT - TEACHERS/PROFESSIONAL	787.00	69.09	621.81	165.19	79.01
01 2151 231 002 000	RETIREMENT - TEACHERS/PROFESSIONAL	2,497.00	219.46	1,975.13	521.87	79.10
01 2151 340 000 000	Other Professional Services	0.00	1,155.00	2,255.00	(2,255.00)	0.00
01 2151 591 001 000	Speech Secondary	0.00	28.47	153.49	(153.49)	0.00
01 2151 591 002 000	Speech Elementary	0.00	28.47	(196.46)	196.46	0.00
01 2151 610 000 000	General Supplies - Speech Path	0.00	0.00	659.26	(659.26)	0.00
2151 Speech - School Age		53,685.00	5,841.36	44,454.76	9,230.24	82.81
01 2152 111 002 000	SALARY-TEACHER/PROFESSIONAL STAFF	8,892.00	781.72	7,035.48	1,856.52	79.12
01 2152 211 002 000	GROUP INS - TEACHERS/PROFESSIONAL	3,915.00	320.87	2,866.02	1,048.98	73.21
01 2152 221 002 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	681.00	59.07	531.67	149.33	78.07
01 2152 231 002 000	RETIREMENT - TEACHERS/PROFESSIONAL	879.00	77.22	694.98	184.02	79.06
01 2152 591 002 000	Speech - Ages 3-5	0.00	7.12	(274.01)	274.01	0.00
2152 Speech - Ages 3-5		14,367.00	1,246.00	10,854.14	3,512.86	75.55
01 2153 111 002 000	SALARY-TEACHER/PROFESSIONAL STAFF	4,680.00	411.43	3,702.87	977.13	79.12
01 2153 211 002 000	GROUP INS - TEACHERS/PROFESSIONAL	2,061.00	168.88	1,508.44	552.56	73.19
01 2153 221 002 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	359.00	31.09	279.84	79.16	77.95
01 2153 231 002 000	RETIREMENT - TEACHERS/PROFESSIONAL	463.00	40.64	365.76	97.24	79.00
01 2153 591 002 000	Speech - Ages 0-2	0.00	7.12	25.49	(25.49)	0.00
2153 Speech - Ages 0-2		7,563.00	659.16	5,882.40	1,680.60	77.78
01 2161 591 001 000	OT - Secondary	6,202.00	514.79	4,985.66	1,216.34	80.39
01 2161 591 002 000	OT - Elementary	6,201.00	514.79	4,985.66	1,215.34	80.40
2161 OT - School Age		12,403.00	1,029.58	9,971.32	2,431.68	80.39
01 2162 591 002 000	OT - Ages 3-5	0.00	128.70	1,246.43	(1,246.43)	0.00

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
2162 OT - Ages 3-5		0.00	128.70	1,246.43	(1,246.43)	0.00
01 2163 591 002 000	OT - Ages 0-2	0.00	128.70	1,246.43	(1,246.43)	0.00
2163 OT - Ages 0-2		0.00	128.70	1,246.43	(1,246.43)	0.00
01 2171 320 001 000	PUPIL SERVICES: Professional Ed Services	6,000.00	901.94	6,364.70	(364.70)	106.08
01 2171 320 002 000	PUPIL SERVICES: Professional Ed Services	8,000.00	975.30	6,210.82	1,789.18	77.64
2171 PT - School Age		14,000.00	1,877.24	12,575.52	1,424.48	89.83
01 2172 320 002 000	PUPIL SERVICES: Professional Ed Services	3,000.00	0.00	1,091.88	1,908.12	36.40
2172 PT - Ages 3-5		3,000.00	0.00	1,091.88	1,908.12	36.40
01 2173 320 002 000	PUPIL SERVICES: Professional Ed Services	4,500.00	378.88	4,622.21	(122.21)	102.72
2173 PT - Ages 0-2		4,500.00	378.88	4,622.21	(122.21)	102.72
01 2210 320 001 000	PUPIL SERVICES: Professional Ed Services	0.00	0.00	1,750.00	(1,750.00)	0.00
2210 Improvement of Instruction		0.00	0.00	1,750.00	(1,750.00)	0.00
01 2213 330 000 000	Employee Development and Training	0.00	0.00	20.00	(20.00)	0.00
01 2213 330 001 000	Employee Development and Training	0.00	0.00	60.00	(60.00)	0.00
01 2213 340 000 000	Other Professional Services	0.00	0.00	295.40	(295.40)	0.00
2213 Instructional Staff Training		0.00	0.00	375.40	(375.40)	0.00
01 2220 111 000 000	Salary - Teachers/Prof	32,480.00	4,696.25	42,266.25	(9,786.25)	130.13
01 2220 211 000 000	Group Insurance - Teachers/Prof	10,899.00	1,982.32	17,825.45	(6,926.45)	163.55
01 2220 221 000 000	Social Security - Teachers/Prof	2,447.00	354.94	3,194.52	(747.52)	130.55
01 2220 231 000 000	Retirement - Teachers/Prof	2,360.00	463.89	4,175.00	(1,815.00)	176.91
01 2220 237 000 000	LB 89 RETIREMENT	800.00	0.00	0.00	800.00	0.00
01 2220 271 000 000	Work Comp - Teachers/Prof	420.00	0.00	0.00	420.00	0.00
01 2220 610 000 000	LIBRARY SUPPLIES	2,500.00	0.00	66.87	2,433.13	2.67
01 2220 640 000 000	LIBRARY BOOKS	2,500.00	134.08	(440.37)	2,940.37	(8.74)
01 2220 643 000 000	Web/Cloud Based Software <$5000	4,000.00	0.00	1,098.23	2,901.77	27.46
2220 Library Media Services		58,406.00	7,631.48	68,185.95	(9,779.95)	117.12
01 2224 610 001 000	Educational Television Services	0.00	0.00	18,798.00	(18,798.00)	0.00
2224 EDUCATIONAL TV SERVICES		0.00	0.00	18,798.00	(18,798.00)	0.00
01 2230 116 000 000	SALARIES - PROFESSIONAL/NON-CERT	12,870.00	1,072.50	9,652.50	3,217.50	75.00
01 2230 216 000 000	GROUP INS - PROF NON-CERTIFIED	3,385.00	271.55	2,444.02	940.98	72.20
01 2230 226 000 000	SOC SEC - PROF NON-CERTIFICATED	985.00	81.36	732.19	252.81	74.33
01 2230 236 000 000	RETIREMENT - PROF NON-CERT	972.00	105.94	953.46	18.54	98.09
01 2230 237 001 000	LB 89 RETIREMENT	300.00	0.00	0.00	300.00	0.00
01 2230 432 000 000	Technology Related Repairs & Maint	0.00	0.00	30.75	(30.75)	0.00
01 2230 610 000 000	Instruction-Related Technology	2,006.00	0.00	186.33	1,819.67	9.29
01 2230 650 000 000	Supplies - Technology Related <$5000	0.00	1,067.20	1,641.38	(1,641.38)	0.00
01 2230 734 000 000	COMPUTER EQUIPMENT (HARDWARE)	0.00	12,599.79	12,599.79	(12,599.79)	0.00
2230 Instruction Related Technology Support		20,518.00	15,198.34	28,240.42	(7,722.42)	137.64
01 2310 333 000 000	Mileage paid to staff	0.00	0.00	43.75	(43.75)	0.00
01 2310 520 000 000	BOARD LIBILITY INS	6,200.00	0.00	0.00	6,200.00	0.00
01 2310 521 000 000	BOARD BOND PREMIUMS	200.00	0.00	100.00	100.00	50.00
01 2310 540 000 000	Advertising and Printing	4,200.00	420.78	2,757.23	1,442.77	65.65
01 2310 580 000 000	BOARD MILEAGE	2,500.00	0.00	3,631.07	(1,131.07)	145.24
01 2310 610 000 000	Supplies	4,500.00	0.00	1,460.98	3,039.02	32.47
01 2310 643 000 000	Web/Cloud Based Software <$5000	4,250.00	0.00	4,000.00	250.00	94.12
01 2310 810 000 000	BOARD DUES FEES	5,500.00	0.00	4,325.23	1,174.77	78.64
01 2310 890 000 000	Other Expense	343.00	0.00	96.73	246.27	28.20
2310 BOARD OF EDUCATION		27,693.00	420.78	16,414.99	11,278.01	59.27
01 2320 105 000 000	Salary - Superintendent	137,000.00	11,416.67	102,750.03	34,249.97	75.00
01 2320 215 000 000	Group Insurance - Superintendents	27,000.00	2,423.21	21,808.89	5,191.11	80.77
01 2320 225 000 000	Social Security - Superintendents	8,732.00	867.11	7,803.99	928.01	89.37
01 2320 235 000 000	Retirement - Superintendents	10,795.00	1,127.72	10,149.48	645.52	94.02
01 2320 330 000 000	Employee Development and Training	0.00	225.00	1,370.00	(1,370.00)	0.00
01 2320 580 000 000	EXEC ADM MILEAGE	0.00	0.00	1,157.21	(1,157.21)	0.00
01 2320 610 000 000	EXEC ADM SUPPLIES	0.00	0.00	216.36	(216.36)	0.00
01 2320 733 000 000	EXEC ADM FURNITURE	0.00	0.00	0.09	(0.09)	0.00
01 2320 810 000 000	EXEC ADM DUES	1,500.00	520.00	600.00	900.00	40.00
2320 EXECUTIVE ADMINISTRATION		185,027.00	16,579.71	145,856.05	39,170.95	78.83
01 2330 317 000 000	District Legal Services	5,225.00	0.00	9,616.75	(4,391.75)	184.05
2330 District Legal Services		5,225.00	0.00	9,616.75	(4,391.75)	184.05
01 2410 111 001 000	SALARY-TEACHER/PROFESSIONAL STAFF	79,104.00	6,842.81	61,585.29	17,518.71	77.85
01 2410 111 002 000	SALARY-	60,834.00	5,745.46	51,709.14	9,124.86	85.00

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
	TEACHER/PROFESSIONAL STAFF					
01 2410 211 001 000	GROUP INS - TEACHERS/PROFESSIONAL	19,849.00	1,701.49	15,557.10	4,291.90	78.38
01 2410 211 002 000	GROUP INS - TEACHERS/PROFESSIONAL	15,509.00	1,961.21	17,635.99	(2,126.99)	113.71
01 2410 221 001 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	6,199.00	516.66	4,648.95	1,550.05	75.00
01 2410 221 002 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	3,053.00	421.08	3,789.87	(736.87)	124.14
01 2410 231 001 000	RETIREMENT - TEACHERS/PROFESSIONAL	6,111.00	675.92	6,083.28	27.72	99.55
01 2410 231 002 000	RETIREMENT - TEACHERS/PROFESSIONAL	3,210.00	567.53	5,107.76	(1,897.76)	159.12
01 2410 330 001 000	Employee Development and Training	0.00	225.00	245.00	(245.00)	0.00
01 2410 330 002 000	Employee Development and Training	0.00	445.00	545.00	(545.00)	0.00
01 2410 580 000 000	ADM MILEAGE	500.00	0.00	90.82	409.18	18.16
01 2410 610 000 000	ADM SUPPLIES	2,500.00	5.50	2,005.97	494.03	80.24
01 2410 643 000 000	Web/Cloud Based Software <$5000	8,000.00	15.99	6,661.99	1,338.01	83.27
01 2410 810 000 000	ADM DUES FEES	2,000.00	1,129.00	1,129.00	871.00	56.45
2410 OFFICE OF THE PRINCIPAL		206,869.00	20,252.65	176,795.16	30,073.84	85.46
01 2490 151 001 000	AD	5,000.00	486.39	4,377.51	622.49	87.55
01 2490 211 001 000	GROUP INS - TEACHERS/PROFESSIONAL	600.00	120.94	1,105.82	(505.82)	184.30
01 2490 221 001 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	300.00	36.73	330.46	(30.46)	110.15
01 2490 231 001 000	RETIREMENT - TEACHERS/PROFESSIONAL	212.00	48.04	432.36	(220.36)	203.94
2490 School Administration Other - AD		6,112.00	692.10	6,246.15	(134.15)	102.19
01 2510 110 000 000	SALARIES - NON-INSTRUCTIONAL	21,200.00	1,702.45	15,702.74	5,497.26	74.07
01 2510 116 000 000	Salary - Prof Non-Certificated	45,929.00	3,774.45	34,189.26	11,739.74	74.44
01 2510 123 000 000	SALARY-SUBSTITUTES	0.00	225.00	300.00	(300.00)	0.00
01 2510 210 000 000	Group Insurance - Non-Instructional	13,525.00	1,075.99	10,061.34	3,463.66	74.39
01 2510 216 000 000	Goup Insurance - Prof Non-Certificated	20,469.00	1,677.35	15,308.50	5,160.50	74.79
01 2510 220 000 000	Social Security - Non Instructional	2,641.00	127.31	1,173.87	1,467.13	44.45
01 2510 223 000 000	SOC SEC - SUBSTITUTES	0.00	17.20	22.93	(22.93)	0.00
01 2510 226 000 000	Social Security - Prof Non-Certificated	3,465.00	284.84	2,579.87	885.13	74.46
01 2510 230 000 000	Retirement - Non-Instructional	2,028.00	168.17	1,512.53	515.47	74.58
01 2510 233 000 000	RETIREMENT - SUBSTITUTES	0.00	14.81	14.81	(14.81)	0.00
01 2510 236 000 000	Retirement - Prof Non-Certificated	4,459.00	372.83	3,332.12	1,126.88	74.73
01 2510 315 000 000	Accounting & Auditing Services	10,000.00	0.00	10,000.00	0.00	100.00
01 2510 330 000 000	Employee Development and Training	0.00	0.00	305.00	(305.00)	0.00
01 2510 352 000 000	PROF TECH SERVICES	4,000.00	0.00	1,140.00	2,860.00	28.50
01 2510 490 000 000	OTHER PURCHASED SERVICES	0.00	226.25	226.25	(226.25)	0.00
01 2510 530 000 000	Telecommunications (Phone)	9,059.00	1,305.25	6,790.31	2,268.69	74.96
01 2510 530 000 001	Telecommunications (Internet)	3,522.00	477.77	3,009.77	512.23	85.46
01 2510 531 000 000	Postage	3,500.00	0.00	633.55	2,866.45	18.10
01 2510 610 000 000	BUSINESS SUPPLIES	9,709.00	0.00	3,144.39	6,564.61	32.39
01 2510 643 000 000	Web/Cloud Based Software	11,500.00	0.00	1,959.19	9,540.81	17.04
01 2510 650 000 000	Supplies - Technology Related <$5000	500.00	0.00	120.00	380.00	24.00
01 2510 733 000 000	FURNITURE	1,000.00	0.00	0.00	1,000.00	0.00
01 2510 810 000 000	DUES AND FEES	0.00	125.00	125.00	(125.00)	0.00
01 2510 830 000 000	Other Debt Related Expenditures	0.00	0.00	0.00	0.00	0.00
01 2510 835 000 000	Interest on Short-Term Debt	3,000.00	0.00	1,983.64	1,016.36	66.12
2510 GENERAL ADMIN-BUSINESS SERVICE		169,506.00	11,574.67	113,635.07	55,870.93	67.04
01 2570 610 000 000	General Supplies	0.00	0.00	50.32	(50.32)	0.00
2570 Personnel Services		0.00	0.00	50.32	(50.32)	0.00
01 2580 116 000 000	SALARIES - PROFESSIONAL/NON-CERT	12,870.00	1,072.50	9,652.50	3,217.50	75.00
01 2580 216 000 000	GROUP INS - PROF NON-CERTIFIED	3,252.00	271.55	2,444.02	807.98	75.15
01 2580 226 000 000	SOC SEC - PROF NON-CERTIFICATED	976.00	81.36	732.19	243.81	75.02
01 2580 236 000 000	RETIREMENT - PROF NON-CERT	1,271.00	105.94	953.46	317.54	75.02
2580 Technology Service for District Administ		18,369.00	1,531.35	13,782.17	4,586.83	75.03
01 2610 271 000 000	Work Comp - Teachers/Prof	10,000.00	0.00	0.00	10,000.00	0.00
01 2610 352 000 000	Professional or Technical Service	49,608.00	0.00	44,011.24	5,596.76	88.72
01 2610 410 000 000	WATER AND SEWER	7,812.00	317.00	5,161.46	2,650.54	66.07
01 2610 420 000 000	Cleaning Services	1,100.00	0.00	558.00	542.00	50.73
01 2610 431 000 000	Non-Technology Related Repairs & Maintenance	3,000.00	0.00	316.00	2,684.00	10.53
01 2610 441 000 000	RENTALS OR LEASES LAND & BUILDINGS	7,500.00	0.00	0.00	7,500.00	0.00
01 2610 520 000 000	Property Insurance	55,000.00	0.00	0.00	55,000.00	0.00
01 2610 610 000 000	SUPPLIES	87,783.00	479.85	44,027.37	43,755.63	50.15
01 2610 621 000 000	Utility Energy Services	96,867.00	16,042.11	79,636.08	17,230.92	82.21

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
01 2610 733 000 000	Furniture and Equipment	1,000.00	0.00	131.94	868.06	13.19
2610 OPERATION OF PLANT		319,670.00	16,838.96	173,842.09	145,827.91	54.38
01 2620 110 000 000	Salary - Non-Instructional	100,595.00	7,785.99	73,894.17	26,700.83	73.46
01 2620 210 000 000	Group Ins - Non-Instructional	11,764.00	959.46	8,773.37	2,990.63	74.58
01 2620 220 000 000	Social Sec - Non -nstructional	7,428.00	573.27	5,452.39	1,975.61	73.40
01 2620 230 000 000	Retirement - Non-Instructional	9,818.00	769.10	7,229.83	2,588.17	73.64
2620 MAINTENANCE OF PLANT		129,605.00	10,087.82	95,349.76	34,255.24	73.57
01 2710 110 000 000	Salary - Bus Drivers	70,517.00	7,259.72	53,977.31	16,539.69	76.55
01 2710 110 001 000	Salary - Non-Instructional 7-12	22,023.00	3,820.01	18,242.60	3,780.40	82.83
01 2710 111 000 000	Salary - Teacher/Prof	10,012.00	0.00	6,957.65	3,054.35	69.49
01 2710 111 001 000	Salary - Teacher/Prof 7-12	2,500.00	0.00	0.00	2,500.00	0.00
01 2710 120 001 000	Salary - Substitute Non-Instr 7-12	2,661.00	0.00	1,551.96	1,109.04	58.32
01 2710 210 000 000	Group Insurance - Non-Instructional	19,792.00	4,019.34	19,070.76	721.24	96.36
01 2710 210 001 000	GROUP INS - NON-INSTRUCTIONAL	5,515.00	1,103.75	4,742.86	772.14	86.00
01 2710 211 000 000	Group Insurance - Teachers/Prof	2,749.00	0.00	1,982.53	766.47	72.12
01 2710 211 001 000	GROUP INS - TEACHERS/PROFESSIONAL	500.00	0.00	0.00	500.00	0.00
01 2710 220 000 000	Social Security - Non Instructional	5,245.00	546.52	4,024.95	1,220.05	76.74
01 2710 220 001 000	SOC SEC - NON INSTRUCTIONAL	1,870.00	289.44	1,499.31	370.69	80.18
01 2710 221 000 000	Social Security - Teachers/Prof	756.00	0.00	526.03	229.97	69.58
01 2710 221 001 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	300.00	0.00	0.00	300.00	0.00
01 2710 230 000 000	Retirement - Non Instructional	5,668.00	569.60	4,313.41	1,354.59	76.10
01 2710 230 001 000	RETIREMENT - NON INSTRUCTIONAL	1,585.00	370.20	1,443.60	141.40	91.08
01 2710 231 000 000	Retirement - Teachers/Prof	989.00	0.00	687.27	301.73	69.49
01 2710 231 001 000	RETIREMENT - TEACHERS/PROFESSIONAL	300.00	0.00	0.00	300.00	0.00
01 2710 271 000 000	Work Comp - Teachers/Prof	12,000.00	0.00	0.00	12,000.00	0.00
01 2710 330 000 000	Employee Development and Training	0.00	20.00	620.00	(620.00)	0.00
01 2710 340 000 000	Other Professional Services	1,000.00	0.00	0.00	1,000.00	0.00
01 2710 350 000 000	Repairs & Maintenance	12,730.00	0.00	9,091.16	3,638.84	71.42
01 2710 520 000 000	LIBILITY INSURNACE	16,000.00	0.00	0.00	16,000.00	0.00
01 2710 610 000 000	Transportation Supplies	18,651.00	2,208.66	11,462.69	7,188.31	61.46
01 2710 626 000 000	GAS-OIL	36,358.00	3,523.45	24,685.48	11,672.52	67.90
01 2710 732 000 000	BUS ACQUISITION	69,097.00	0.00	0.00	69,097.00	0.00
01 2710 810 000 000	DUES AND FEES	1,254.00	629.95	1,616.40	(362.40)	128.90
01 2710 890 000 000	RADIO/PHYSICALS/MISC	1,011.00	0.00	590.00	421.00	58.36
2710 REGULAR PUPIL TRANSPORTATION		321,083.00	24,360.64	167,085.97	153,997.03	52.04
01 2712 110 000 000	Salaries	20,000.00	0.00	0.00	20,000.00	0.00
01 2712 270 000 000	Salaries	3,000.00	0.00	0.00	3,000.00	0.00
2712 SCHOOL AGE SPEC ED TRANSPORT		23,000.00	0.00	0.00	23,000.00	0.00
01 2713 332 002 000	Mileage Paid to Parents - Below 5 SPED	2,000.00	0.00	0.00	2,000.00	0.00
2713 SPED Transportation Below age 5		2,000.00	0.00	0.00	2,000.00	0.00
01 3535 610 000 001	HIGH ABILITY	1,000.00	0.00	205.00	795.00	20.50
3535 HIGH ABILITY		1,000.00	0.00	205.00	795.00	20.50
01 3552 610 000 000	General Supplies	6,500.00	0.00	13,504.00	(7,004.00)	207.75
3552 School Safety and Security Act		6,500.00	0.00	13,504.00	(7,004.00)	207.75
01 4300 490 000 000	OTHER PURCHASED SERVICES	0.00	0.00	780.80	(780.80)	0.00
4300 CHAPTER II		0.00	0.00	780.80	(780.80)	0.00
01 6200 111 002 000	CHAPTER 1 SALARY	67,224.00	5,156.78	46,611.02	20,612.98	69.34
01 6200 211 002 000	Group Insurance - Teachers/Prof Elem	22,682.00	1,731.18	15,527.38	7,154.62	68.46
01 6200 221 002 000	Social Security - Teachers/Prof Elem	4,729.00	391.96	3,543.02	1,185.98	74.92
01 6200 231 002 000	Retirement - Teachers/Prof Elem	6,146.00	509.38	4,604.17	1,541.83	74.91
01 6200 271 002 000	Work Comp - Teachers/Prof Elem	700.00	0.00	0.00	700.00	0.00
01 6200 610 002 000	General Supplies Elem	2,500.00	0.00	6.20	2,493.80	0.25
01 6200 890 002 000	OTHER MISC OBJECTS	500.00	0.00	461.00	39.00	92.20
6200 TITLE 1		104,481.00	7,789.30	70,752.79	33,728.21	67.72
01 6406 591 002 000	IDEA Preschool Purchased Services	5,500.00	0.00	0.00	5,500.00	0.00
6406 IDEA Pre-School		5,500.00	0.00	0.00	5,500.00	0.00
01 6408 591 002 000	IDEA Base/EP Purchased Services	50,010.00	0.00	0.00	50,010.00	0.00
6408 IDEA Base/EP		50,010.00	0.00	0.00	50,010.00	0.00
01 6700 111 000 000	SALARY-TEACHER/PROFESSIONAL STAFF	1,200.00	0.00	600.00	600.00	50.00
01 6700 211 000 000	GROUP INS - TEACHERS/PROFESSIONAL	229.00	0.00	133.40	95.60	58.25
01 6700 221 000 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	78.00	0.00	45.69	32.31	58.58
01 6700 231 000 000	RETIREMENT - TEACHERS/PROFESSIONAL	102.00	0.00	59.26	42.74	58.10
6700 CTE/Carl Perkins		1,609.00	0.00	838.35	770.65	52.10

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
01 6969 111 000 000	SALARY-TEACHER/PROFESSIONAL STAFF	950.00	0.00	950.00	0.00	100.00
01 6969 211 000 000	GROUP INS - TEACHERS/PROFESSIONAL	264.00	0.00	264.01	(0.01)	100.00
01 6969 221 000 000	SOCIAL SECURITY - TEACHERS/PROFESSIONAL	72.00	0.00	72.30	(0.30)	100.42
01 6969 231 000 000	RETIREMENT - TEACHERS/PROFESSIONAL	94.00	0.00	93.83	0.17	99.82
6969 Title IV Part A		1,380.00	0.00	1,380.14	(0.14)	100.01
01 6988 610 002 000	Supplies - ESSER Collaborative ELO - After School	3,956.00	0.00	3,956.08	(0.08)	100.00
6988 ESSER Collaborative ELO - After School		3,956.00	0.00	3,956.08	(0.08)	100.00
01 6992 734 000 000	REAP-Computer Hardware	54,551.00	0.00	35,190.43	19,360.57	64.51
6992 REAP		54,551.00	0.00	35,190.43	19,360.57	64.51
01 8000 912 000 000	TRANS DIST LUNCH	45,000.00	0.00	30,000.00	15,000.00	66.67
01 8000 913 000 000	TRANS Activities Accounts	36,510.00	0.00	0.00	36,510.00	0.00
8000 TRANSFERS		81,510.00	0.00	30,000.00	51,510.00	36.81
9 Expenditure		5,060,890.00	383,960.40	3,437,390.36	1,623,499.64	68.00
Grand Total:		(838,091.00)	759,487.49	1,168,028.53	1,240,879.75	86.67

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
8 Revenue						
02 1510	INTEREST ON LOCAL REV RECEIPTS	3,000.00	88.00	1,569.65	1,430.35	52.32
03 1510	INTEREST ON LOCAL REV RECEIPTS	1,130.00	44.85	426.17	703.83	37.71
04 1790 0613	ACTIVE INCOME GIRLS WR	0.00	0.00	74.00	(74.00)	0.00
04 1790 600	ACTIV INCOME COOP 410	119,000.00	446.43	27,435.09	91,564.91	23.05
04 1790 603	ACTIV INCOME COOP STUDENTS VB	0.00	0.00	2,256.00	(2,256.00)	0.00
04 1790 604	ACTIV INCOME COOP STUDENT FB	0.00	460.00	665.47	(665.47)	0.00
04 1790 605	ACTIV INCOME COOP STUDENTS GBB	0.00	0.00	250.00	(250.00)	0.00
04 1790 606	ACTIV INCOME COOP STUDENTS BBB	0.00	0.00	530.00	(530.00)	0.00
04 1790 607	ACTIV INCOME BOYS WR	0.00	0.00	320.13	(320.13)	0.00
04 1790 608	ACTIV INCOME COOP STUDENTS TRACK	0.00	92.45	792.23	(792.23)	0.00
04 1790 610	ACTIV INCOME COOP STUDENT CHEERLEADERS	0.00	0.00	7,399.00	(7,399.00)	0.00
04 1790 612	Active Income Coop XC	0.00	0.00	92.55	(92.55)	0.00
04 1920 607	Wrestling Donations	0.00	0.00	350.00	(350.00)	0.00
04 1920 610	Cheer Donations	0.00	0.00	900.00	(900.00)	0.00
04 5200 600	Transfers In	18,255.00	0.00	0.00	18,255.00	0.00
05 1790 0212	Active Income/Board BCBS	0.00	1,934.17	9,670.85	(9,670.85)	0.00
05 1790 0216	Active Income/EHA Elevate Grant	0.00	0.00	605.00	(605.00)	0.00
05 1790 0230	ACTIV INCOME/Testing Fees	0.00	0.00	210.00	(210.00)	0.00
05 1790 0240	ACTIV INCOME/Student Computer Repairs	0.00	0.00	75.00	(75.00)	0.00
05 1790 0250	ACTIV INCOME-Scoreboard	0.00	0.00	27,833.32	(27,833.32)	0.00
05 1790 0313	ACTIV INCOME/FFA	0.00	2,550.00	17,988.75	(17,988.75)	0.00
05 1790 0317	ACTIV INCOME/One Acts Team	0.00	0.00	1,748.68	(1,748.68)	0.00
05 1790 0318	ACTIV INCOME/6th Grade Box Tops	0.00	2.10	2.10	(2.10)	0.00
05 1790 0321	ACTIV INCOME/National Honor Society	0.00	0.00	465.95	(465.95)	0.00
05 1790 0325	Active Income - Journalism	0.00	0.00	680.00	(680.00)	0.00
05 1790 0327	Active Income/Elementary Activities	0.00	0.00	1,000.00	(1,000.00)	0.00
05 1790 0403	Active Income - Bears Savings Bank	0.00	0.00	1,204.63	(1,204.63)	0.00
05 1790 0525	Active Income - Class of 2025	0.00	165.00	165.00	(165.00)	0.00
05 1790 0526	Active Income - Class of 2026	0.00	0.00	1,825.19	(1,825.19)	0.00
05 1790 0527	Active Income - Class of 2027	0.00	0.00	422.65	(422.65)	0.00
05 1790 0528	Active Income - Class of 2028	0.00	52.00	1,944.00	(1,944.00)	0.00
05 1790 0529	Active Income - Class of 2029	0.00	51.00	3,847.37	(3,847.37)	0.00
05 1790 0530	Active Income - Class of 2030	0.00	51.00	3,187.36	(3,187.36)	0.00
05 1790 200	ACTIV INCOME/GENERAL ACTIVITY	21,000.00	1,057.01	10,620.31	10,379.69	50.57
05 1790 301	ACTIV INCOME/ART CLUB	0.00	0.00	519.32	(519.32)	0.00
05 1790 305	ACTIV INCOME/FCCLA	0.00	2,863.01	13,779.16	(13,779.16)	0.00
05 1790 306	ACTIV INCOME/STUDENT POP CANDY	0.00	597.88	23,336.51	(23,336.51)	0.00
05 1790 314	ACTIV INCOME/SPEECH TEAM	0.00	0.00	140.10	(140.10)	0.00
05 1790 597	WASHINGTON TRIP	0.00	0.00	200.00	(200.00)	0.00
05 1790 600	ACTIV INCOME COOP 410	0.00	0.00	0.00	0.00	0.00
05 1920 0313	FFA Donations	0.00	40.00	2,366.53	(2,366.53)	0.00
05 1920 305	FCCLA Donations	0.00	11,000.00	11,000.00	(11,000.00)	0.00
05 5200 200	Transfers In - General Activity	18,255.00	0.00	0.00	18,255.00	0.00
06 1510	INTEREST ON LOCAL REV RECEIPTS	50.00	4.04	65.45	(15.45)	130.90
06 1611	SALE OF LUNCHES/MILK	56,418.00	7,930.95	46,805.25	9,612.75	82.96
06 1612	SALE OF BREAKFASTS	0.00	150.00	3,281.00	(3,281.00)	0.00
06 1620	STUDENT A LA CARTE	0.00	130.00	1,987.00	(1,987.00)	0.00
06 1920	CONTRIBUTIONS & DONATIONS	0.00	0.00	500.00	(500.00)	0.00
06 1990	OTHER LOCAL RECEIPTS	0.00	5,000.00	5,166.24	(5,166.24)	0.00
06 3150	SCHOOL LUNCH STATE	1,000.00	0.00	827.29	172.71	82.73
06 4210	FEDERAL REIMBURSEMENT	80,000.00	0.00	52,687.08	27,312.92	65.86
06 5200	Transfers In	60,000.00	0.00	30,000.00	30,000.00	50.00
08 1100 00	LOCAL DISTRICT TAX	49,500.00	7,069.75	55,334.34	(5,834.34)	111.79
08 1100 0002	DAWSON PROPERTY TAXES	0.00	143.76	934.47	(934.47)	0.00
08 1140	Interest/Penalties on Taxes	150.00	0.00	254.12	(104.12)	169.41
08 1510 00	INTEREST BUILDING FUND	5,000.00	60.46	1,552.95	3,447.05	31.06
08 3130	HOMESTEAD EXEMPTION	0.00	69.58	200.62	(200.62)	0.00
08 3131	Property Tax Credit	0.00	9,817.53	19,635.06	(19,635.06)	0.00
08 3133	Nameplate Tax	120.00	4.70	35.34	84.66	29.45
08 3180	PRO-RATE MOTOR VEHICLE	240.00	0.91	157.70	82.30	65.71
09 1510	INTEREST ON LOCAL REV RECEIPTS	600.00	0.00	44.56	555.44	7.43
8 Revenue		433,718.00	51,876.58	397,366.54	36,351.46	91.62
9 Expenditure						
02 2710 732 000 000	VEHICLE ACQUISITION	0.00	0.00	12,000.00	(12,000.00)	0.00

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
2710 REGULAR PUPIL TRANSPORTATION		0.00	0.00	12,000.00	(12,000.00)	0.00
02 2900 340 000 000	Other Professional Services	0.00	0.00	55,503.53	(55,503.53)	0.00
02 2900 732 000 000	CAPITAL OUTLAY (NEW & REPLACE)	175,461.00	0.00	0.00	175,461.00	0.00
2900 SUPPORT SERVICES		175,461.00	0.00	55,503.53	119,957.47	31.63
03 2900 262 000 000	Unemployment Compensation Instr Aides & Assistants	28,256.00	0.00	232.00	28,024.00	0.82
2900 SUPPORT SERVICES		28,256.00	0.00	232.00	28,024.00	0.82
03 9000 900 000 000	Other Items - Purchase of CD's	30,000.00	0.00	30,000.00	0.00	100.00
9000 NON-PROGRAMMED CHARGES		30,000.00	0.00	30,000.00	0.00	100.00
04 2900 352 001 600	OTHER PROF/TECH SERVICES	0.00	0.00	12,570.00	(12,570.00)	0.00
04 2900 580 001 600	TRAVEL EXPENSE AND MILEAGE	0.00	0.00	711.00	(711.00)	0.00
04 2900 610 001 600	SOUTH LOUP SUPPLIES	197,452.08	2,104.00	50,737.47	146,714.61	25.70
04 2900 610 001 601	SUPPLIES	0.00	0.00	800.00	(800.00)	0.00
04 2900 610 001 603	SOUTH LOUP VB TEAM	0.00	0.00	3,384.46	(3,384.46)	0.00
04 2900 610 001 604	SOUTH LOUP FB TEAM	0.00	0.00	0.00	0.00	0.00
04 2900 610 001 605	SOUTH LOUP GBB TEAM	0.00	0.00	1,178.00	(1,178.00)	0.00
04 2900 610 001 607	SOUTH LOUP BOYS WR TEAM	0.00	0.00	274.00	(274.00)	0.00
04 2900 610 001 608	SOUTH LOUP TRACK TEAM	0.00	100.00	712.63	(712.63)	0.00
04 2900 610 001 609	SOUTH LOUP GOLF TEAM	0.00	0.00	279.94	(279.94)	0.00
04 2900 610 001 610	SOUTH LOUP CHEERLEADERS	0.00	0.00	6,859.57	(6,859.57)	0.00
04 2900 610 001 613	SOUTH LOUP GIRLS WR	0.00	0.00	74.00	(74.00)	0.00
2900 SUPPORT SERVICES		197,452.08	2,204.00	77,581.07	119,871.01	39.29
05 2900 610 000 212	General Supplies/Board BCBS	0.00	1,934.17	9,670.85	(9,670.85)	0.00
05 2900 610 000 216	Supplies/EHA Elevate Grant	0.00	0.00	105.00	(105.00)	0.00
05 2900 610 000 326	General Supplies - Culture Committee	0.00	0.00	8.88	(8.88)	0.00
05 2900 610 001 200	SUPPLIES/GENERAL ACTIVITY	168,199.92	14,638.66	24,051.38	144,148.54	14.51
05 2900 610 001 204	SUPPLIES/DRAMA/SPEECH	0.00	0.00	3,597.88	(3,597.88)	0.00
05 2900 610 001 208	SUPPLIES/BAND FEES/REPAIRS	0.00	0.00	150.00	(150.00)	0.00
05 2900 610 001 211	SUPPLIES/Scoreboard	0.00	0.00	3,243.00	(3,243.00)	0.00
05 2900 610 001 230	Supplies-Testing Fees	0.00	0.00	966.00	(966.00)	0.00
05 2900 610 001 301	SUPPLIES/ART CLUB	0.00	0.00	488.89	(488.89)	0.00
05 2900 610 001 302	SUPPLIES/BOYS BASKETBALL	0.00	0.00	1,027.21	(1,027.21)	0.00
05 2900 610 001 303	SUPPLIES/GIRLS BASKETBALL	0.00	0.00	1,405.35	(1,405.35)	0.00
05 2900 610 001 305	SUPPLIES/FCCLA	0.00	7,956.65	17,527.08	(17,527.08)	0.00
05 2900 610 001 306	SUPPLIES/STUDENT POP CANDY	0.00	0.00	24,846.16	(24,846.16)	0.00
05 2900 610 001 309	SUPPLIES/CHEERLEADERS	0.00	0.00	487.59	(487.59)	0.00
05 2900 610 001 311	SUPPLIES/WRESTLING	0.00	0.00	595.36	(595.36)	0.00
05 2900 610 001 313	SUPPLIES/FFA	0.00	268.66	13,679.66	(13,679.66)	0.00
05 2900 610 001 314	SUPPLIES/SPEECH DRAMA	0.00	215.77	817.08	(817.08)	0.00
05 2900 610 001 315	SUPPLIES/GOLF STUDENTS	0.00	0.00	124.95	(124.95)	0.00
05 2900 610 001 316	SUPPLIES/ QUIZ BOWL	0.00	0.00	753.56	(753.56)	0.00
05 2900 610 001 317	SUPPLIES/One Acts Team	0.00	0.00	1,069.60	(1,069.60)	0.00
05 2900 610 001 321	SUPPLIES/National Honor Society	0.00	0.00	412.18	(412.18)	0.00
05 2900 610 001 519	SUPPLIES-Class of 2019	0.00	0.00	38.40	(38.40)	0.00
05 2900 610 001 525	General Supplies - Class of 2025	0.00	306.00	1,205.40	(1,205.40)	0.00
05 2900 610 001 526	General Supplies - Class of 2026	0.00	0.00	279.74	(279.74)	0.00
05 2900 610 001 528	General Supplies - Class of 2028	0.00	67.47	1,202.47	(1,202.47)	0.00
05 2900 610 001 529	General Supplies - Class of 2029	0.00	0.00	2,058.00	(2,058.00)	0.00
05 2900 610 001 530	General Supplies - Class of 2030	0.00	0.00	1,643.00	(1,643.00)	0.00
05 2900 610 001 597	WASHINGTON TRIP	0.00	200.00	957.96	(957.96)	0.00
05 2900 610 001 600	coop athletic 410	0.00	0.00	780.00	(780.00)	0.00
05 2900 610 002 327	Elementary Activities	0.00	1,804.02	3,364.78	(3,364.78)	0.00
05 2900 610 002 403	General Supplies - Bears Savings Bank	0.00	41.10	54.10	(54.10)	0.00
2900 SUPPORT SERVICES		168,199.92	27,432.50	116,611.51	51,588.41	69.54
05 9000 900 000 000	Other Items - Purchase of CD's	0.00	0.00	100,000.00	(100,000.00)	0.00
9000 NON-PROGRAMMED CHARGES		0.00	0.00	100,000.00	(100,000.00)	0.00
06 3100 110 000 000	Salary - Non-Instructional	60,000.00	6,409.02	52,044.96	7,955.04	86.74
06 3100 120 000 000	Salary - Substitutes Non-Instructional	0.00	135.00	135.00	(135.00)	0.00
06 3100 210 000 000	Group Insurance - Non Instructional	35,640.00	3,568.13	31,094.50	4,545.50	87.25
06 3100 220 000 000	Social Security - Non Instructional	9,180.00	493.82	3,931.81	5,248.19	42.83
06 3100 230 000 000	Retirement - Non Instructional	9,180.00	551.21	4,398.61	4,781.39	47.92
06 3100 580 000 000	Travel	0.00	0.00	189.95	(189.95)	0.00
06 3100 610 000 000	SUPPLIES	10,000.00	243.38	4,033.61	5,966.39	40.34
06 3100 630 000 000	FOOD	120,000.00	8,819.23	91,597.38	28,402.62	76.33
06 3100 890 000 000	Misc Other Expenses	5,000.00	64.74	2,839.07	2,160.93	56.78
3100 Food Services Operations		249,000.00	20,284.53	190,264.89	58,735.11	76.41
08 1990 000 000 000	000	0.00	(23.47)	(23.47)	23.47	0.00
1990 Miscellaneous Local Receipts		0.00	(23.47)	(23.47)	23.47	0.00
08 4100 710 000 000	Land & Land Improvements	0.00	0.00	0.00	0.00	0.00
08 4100 720 000 000	BUILDINGS AND IMPROVEMENTS	0.00	0.00	68,328.54	(68,328.54)	0.00

Account Number	Account Description	Revised Budget	Activity During Month	Activity to Date	Balance at EOM	% of Budget
4100 CHAPTER I (PREV YR)		0.00	0.00	68,328.54	(68,328.54)	0.00
08 4700 450 000 000	Construction Services	0.00	0.00	11,370.30	(11,370.30)	0.00
08 4700 720 000 000	Buildings & Improvements	176,811.00	2,500.00	50,509.35	126,301.65	28.57
4700 Building Improvements		176,811.00	2,500.00	61,879.65	114,931.35	35.00
08 9000 900 000 000	Other Items - Purchase of CD's	200,000.00	0.00	200,000.00	0.00	100.00
9000 NON-PROGRAMMED CHARGES		200,000.00	0.00	200,000.00	0.00	100.00
09 2515 720 000 000	CAPITAL OUTLAY (NEW & REPLACE)	7,612.00	0.00	0.00	7,612.00	0.00
2515 BUILDING & SITES		7,612.00	0.00	0.00	7,612.00	0.00
09 8000 900 000 000	Other Items - Purchase of CD's	0.00	0.00	30,161.79	(30,161.79)	0.00
8000 TRANSFERS		0.00	0.00	30,161.79	(30,161.79)	0.00
9 Expenditure		1,232,792.00	52,397.56	942,539.51	290,252.49	76.48
Grand Total:		(799,074.00)	(520.98)	(545,172.97)	326,603.95	80.42

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 01 GENERAL FUND

				Beginning Balance	Debits	Credits	Ending Balance
Current Assets							
01 101			CASH IN BANK	177,381.53	1,144,589.19	385,191.32	936,779.40
01 102			PETTY CASH	2,088.34	0.51	0.00	2,088.85
01 106			SAVINGS CERTIFICATES	1,025,725.89	0.00	0.00	1,025,725.89
01 109			MONEY MARKET ACCOUNTS	0.00	0.00	0.00	0.00
	Total:	Current Assets		1,205,195.76	1,144,589.70	385,191.32	1,964,594.14
	Total:	01		1,205,195.76	1,144,589.70	385,191.32	1,964,594.14

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 02 DEPRECIATION FUND

			Beginning Balance	Debits	Credits	Ending Balance
Current Assets						
02 105		INTEREST BEARING ACCOUNTS	46,173.97	88.00	0.00	46,261.97
	Total:	Current Assets	46,173.97	88.00	0.00	46,261.97
	Total:	02	46,173.97	88.00	0.00	46,261.97

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 03 EMPLOYEE BENEFIT FUND

				Beginning Balance	Debits	Credits	Ending Balance
Current Assets							
03 101			CASH IN BANK	27,286.18	44.85	0.00	27,331.03
	Total:	Current Assets		27,286.18	44.85	0.00	27,331.03
	Total:	03		27,286.18	44.85	0.00	27,331.03

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 04 SOUTH LOUP BOBCATS

			Beginning Balance	Debits	Credits	Ending Balance
Current Assets						
04 101		CASH	25,542.40	998.88	2,204.00	24,337.28
	Total:	Current Assets	25,542.40	998.88	2,204.00	24,337.28
	Total:	04	25,542.40	998.88	2,204.00	24,337.28

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 05 ACTIVITIES FUND

				Beginning Balance	Debits	Credits	Ending Balance
Current Assets							
05 101			CASH	79,692.75	20,413.45	27,482.78	72,623.42
05 103			BEARS SAVINGS BANK	1,508.22	0.00	0.00	1,508.22
	Total:	Current Assets		81,200.97	20,413.45	27,482.78	74,131.64
	Total:	05		81,200.97	20,413.45	27,482.78	74,131.64

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 06 SCHOOL LUNCH AND MILK FUND

				Beginning Balance	Debits	Credits	Ending Balance
Current Assets							
06 101			CASH IN BANK	15,412.37	13,214.99	20,284.53	8,342.83
	Total:	Current Assets		15,412.37	13,214.99	20,284.53	8,342.83
	Total:	06		15,412.37	13,214.99	20,284.53	8,342.83

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 08 SPECIAL BUILDING FUND

				Beginning Balance	Debits	Credits	Ending Balance
Current Assets							
08 101			CASH IN BANK	28,477.77	17,190.16	2,500.00	43,167.93
	Total:	Current Assets		28,477.77	17,190.16	2,500.00	43,167.93
	Total:	08		28,477.77	17,190.16	2,500.00	43,167.93

Regular; Beginning Month 05/2025; Processing Month 05/2025; Chart of Account Number
12 Records Selected

Fund: 09 ADA

				Beginning Balance	Debits	Credits	Ending Balance
Current Assets							
09 101			CASH IN BANK	0.00	0.00	0.00	0.00
	Total:	Current Assets		0.00	0.00	0.00	0.00
	Total:	09		0.00	0.00	0.00	0.00

Checking Account ID: 1 **Check Type: Automatic Payment**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
78	05/13/2025	X			NESB	Nebraska State Bank & Trust Company	10.00
	Check Type Total:		Automatic Payment		Void Total:	0.00 Total without Voids:	10.00

Checking Account ID: 1 **Check Type: Check**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
40839	05/15/2025	X	X	05/14/2025	DISHCHA	Chance Dishman	874.19
40840	05/15/2025	X			JOHNANG	Angel Johnson	132.06
40841	05/15/2025	X			WEINBON	Bonnie Lusk-Weinman	1,573.62
40842	05/15/2025	X			AF	AFLAC	812.26
40843	05/15/2025	X			AMERITASLI	Ameritas	607.24
40844	05/15/2025	X			B	BLUE CROSS BLUE SHIELD	47,882.87
40845	05/15/2025	X			B100	BLUE CROSS BLUE SHIELD	10,287.65
40846	05/15/2025	X			CALLAWAY	Callaway Public School	100.00
40847	05/15/2025	X			001	Callaway Public Schools - General Fund	47,792.49
40848	05/15/2025	X			003	Callaway Public Schools - General Fund	6,421.37
40849	05/15/2025				004	Callaway Public Schools - General Fund	41,471.49
40850	05/15/2025	X			CHILDSUPP	Callaway Public Schools - General Fund	590.00
40851	05/15/2025	X			OIP	FORT DEARBORN LIFE INSURANCE	2,150.31
40852	05/15/2025	X			O	FORT DEARBORN LIFE INSURANCE CO	350.00
40853	05/15/2025	X			403B	Matrix Trust (DEN)	1,187.68
40854	05/13/2025	X			ACTINTTECH	Active Interent Technologies	1,096.00
40855	05/13/2025	X			AMAZON	Amazon Capital Services, Inc	1,174.39
40856	05/13/2025	X			ATT3	AT&T	131.34
40857	05/13/2025	X			BROGKAY	Kaylee Brogan	2,351.50
40858	05/13/2025	X			CMARKET	Callaway Market	235.40
40859	05/13/2025	X			CTRUEV	CALLAWAY TRUE VALUE	246.78
40860	05/13/2025	X			COUNTRYP	Country Partners Cooperative	4,330.00
40861	05/13/2025	X			EAKES1	EAKES OFFICE	107.84
40862	05/13/2025	X			ESU10	ESU #10	6,085.58
40863	05/13/2025	X			ESU10	ESU #10	821.42
40864	05/13/2025	X			EVERWHITE	EVERWhite Corporation	1,314.00
40865	05/13/2025	X			FARRITOR	FARRITOR AUTO PARTS	375.00
40866	05/13/2025				FRESHIDEAS	Fresh Ideas	162.80
40867	05/13/2025	X			FURRHAL	Haley Furrow	1,155.00
40868	05/13/2025	X			GREAT2	GREAT PLAINS COMM.	477.77
40869	05/13/2025	X			GROCEY	GROCERY KART	99.59
40870	05/13/2025	X			HIRERI	HIRERIGHTS SOLUTIONS INC.	469.70
40871	05/13/2025	X			JOHNBRI	Brian Johnson	93.96
40872	05/13/2025	X			NCSPEARSON	NCS Pearson, Inc	17.20
40873	05/13/2025	X			NCSA	NCSA	2,439.00
40874	05/13/2025				NSTA2	Nebraska School Transportation Association	150.00
40875	05/13/2025	X			NORDERSUP	Norder Supply, Inc.	12,701.20
40876	05/13/2025	X			PRIMESECUR	Prime Secured	437.28
40877	05/13/2025	X			QUILL	Quill	601.41
40878	05/13/2025	X			READNATURA	Read Naturally	832.00
40879	05/13/2025	X			RUSSELLTIT	Russell Title & Escrow Co	226.25
40880	05/13/2025	X			SYNDICATEP	Syndicate Publishing	420.78
40881	05/13/2025	X			TEAMPHYSIC	Team Physical Therapy	2,256.12
40882	05/13/2025	X			TRUMJOL	Jolleen Trumbull	176.40
40883	05/13/2025	X			UNK6	UNK Academic Advising & Career Development	175.00
40884	05/13/2025	X			USBANK	US Bank	14,323.87
40885	05/13/2025	X			USBANK	US Bank	366.52
40886	05/13/2025	X			VERIZO	VERIZON WIRELESS	77.91
40887	05/13/2025	X			VILLAG	VILLAGE OF CALLAWAY	3,657.91
40888	05/13/2025	X			WENQUI	WENQUIST INC.	679.19
40889	05/13/2025	X			YANDAA	YANDA'S MUSIC & PRO AUDIO	101.00
40890	05/15/2025	X			DISHCHA	Chance Dishman	442.27
	Check Type Total:		Check		Void Total:	874.19 Total without Voids:	222,168.42

Checking Account ID: 1 **Check Type: Direct Deposit**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
9670	05/15/2025	X			BONDKAI	Kailey Bonde	1,288.36
9671	05/15/2025	X			MARTAND	Andrew Martin	2,085.86
9672	05/15/2025	X			STRYPEG	PEGGY STRYKER	66.58
9673	05/15/2025	X			ANDECAS	Cassie Anderson	2,245.09
9674	05/15/2025	X			ANDECRY	Crysta Anderson	3,215.24
9675	05/15/2025	X			BEAVBRE	Brenner Beavers	3,756.08
9676	05/15/2025	X			SMITHAN	Hannah Beck	896.83
9677	05/15/2025	X			BESHMAR	MARY BESHALER	554.10
9678	05/15/2025	X			BIRKHEA	Heath Birkel	6,689.60
9679	05/15/2025	X			BOMBKAR	Karen Bomberger	554.10
9680	05/15/2025	X			BROGKAY	Kaylee Brogan	3,103.16
9681	05/15/2025	X			CAMPSUZ	Suzanne Campbell	2,912.58
9682	05/15/2025	X			HUPPMAD	Madison Dockweiler	3,020.75
9683	05/15/2025	X			DOCKWEN	WENDY DOCKWEILER	3,704.15
9684	05/15/2025	X			DONEMEG	Megan Donegan	168.44
9685	05/15/2025	X			ORDTINA	Tina Donegan	4,507.85
9686	05/15/2025	X			EGGLMEL	Melissa Eggleston	2,627.10
9687	05/15/2025	X			ELLIDAR	DARIN ELLIS	3,993.28
9688	05/15/2025	X			ELLISHE	SHEILA ELLIS	4,128.80
9689	05/15/2025	X			SMITCOU	Courtney Espinosa Cariveau	2,652.63
9690	05/15/2025	X			FETTAMA	Amanda Fetters	3,172.90
9691	05/15/2025	X			FURRCHR	Christi Furrow	5,059.17
9692	05/15/2025	X			FURRJD	John Furrow	6,939.83
9693	05/15/2025	X			GILLKAC	Kacee Gillis	154.55
9694	05/15/2025	X			WYCKERI	Erin Gorsuch	1,866.57
9695	05/15/2025	X			HICKJEN	Jennifer Hickenbottom	3,729.93
9696	05/15/2025	X			HINMABE	ABRAHAM HINMAN	5,148.19
9697	05/15/2025	X			HRUPGAR	Garrett Hrupek	3,693.54
9698	05/15/2025	X			HRUPJEF	Jeffrey Hrupek	903.58
9699	05/15/2025	X			JESSBRI	Brittany Jesseph	4,904.33
9700	05/15/2025	X			JOHNJUL	Julie Johnson	1,012.20
9701	05/15/2025	X			KEENMAR	MARCIA KEENEY	3,592.76
9702	05/15/2025	X			KIMBLUC	Lucy Kimball	209.88
9703	05/15/2025	X			LEIBCAT	CATHERINE LEIBHART	3,997.44
9704	05/15/2025	X			BONDTIA	Tiana Lisby	2,788.91
9705	05/15/2025	X			MEHRKEE	Keegan Mehrens	1,706.91
9706	05/15/2025	X			MEYEKEN	Kendra Meyer	3,513.34
9707	05/15/2025	X			MILLTER	TERESA MILLER	642.62
9708	05/15/2025	X			MOWRBRI	Brianna Mowrey	2,486.36
9709	05/15/2025	X			PHELSUS	SUSAN PHELPS	138.52
9710	05/15/2025	X			PITKKEN	Kenneth Pitkin	277.05
9711	05/15/2025	X			POPPCHA	Charmayne Popp	3,002.97
9712	05/15/2025	X			ROSSSTE	STEPHANIE ROSS	3,093.51
9713	05/15/2025	X			RUSHNIC	NICOLE RUSH	3,695.30
9714	05/15/2025	X			SALLKIM	KIMBERLY SALLACH	4,158.61
9715	05/15/2025	X			SEADLOI	LOIS SEADORE	858.85
9716	05/15/2025	X			SHIRMAR	Mary Shirack	971.68
9717	05/15/2025	X			SMITCAL	Caleb Smith	124.67
9718	05/15/2025	X			SMITTER	Teresa Smith	172.05
9719	05/15/2025	X			STARJEA	Jeanne Staroski	415.57
9720	05/15/2025	X			STUTMAT	Matthew Stutzman	3,185.11
9721	05/15/2025	X			SUGHDEN	Denise Sughayar	3,597.13
9722	05/15/2025	X			SVENSON	LYNETTE SVENSON	4,989.68
9723	05/15/2025	X			SWEEZAC	Zachary Sweet	3,312.18
9724	05/15/2025	X			TROUSHI	Shirley Trout	124.67
9725	05/15/2025	X			TRUMJO	Mary Trumbull	2,374.41
9726	05/15/2025	X			WEBEJAD	Jadyn Weber	2,660.23
9727	05/15/2025	X			WENDSUZ	SUZANNE WENDORFF	346.31

Checking Account ID: 1 **Check Type: Direct Deposit**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
9728	05/15/2025	X			WEVEKAR	KAREN WEVERKA	4,767.64
9729	05/15/2025	X			WEVEMIK	MICHAEL WEVERKA	3,467.65
9730	05/15/2025	X			WILKLAY	Laykin Wilkins	1,791.35
9731	05/15/2025	X			ANDECAS	Cassie Anderson	140.66
9732	05/15/2025	X			BIRKHEA	Heath Birkel	442.53
9733	05/15/2025	X			DOCKWEN	WENDY DOCKWEILER	255.07
9734	05/15/2025	X			ORDTINA	Tina Donegan	359.22
9735	05/15/2025	X			EGGLMEL	Melissa Eggleston	342.53
9736	05/15/2025	X			ELLIDAR	DARIN ELLIS	555.07
9737	05/15/2025	X			FURRJD	John Furrow	342.53
9738	05/15/2025	X			HICKJEN	Jennifer Hickenbottom	342.53
9739	05/15/2025	X			HINMABE	ABRAHAM HINMAN	342.53
9740	05/15/2025	X			HRUPGAR	Garrett Hrupek	121.48
9741	05/15/2025	X			JESSBRI	Brittany Jesseph	542.53
9742	05/15/2025	X			LEIBCAT	CATHERINE LEIBHART	255.07
9743	05/15/2025	X			BONDTIA	Tiana Lisby	255.07
9744	05/15/2025	X			MEYEKEN	Kendra Meyer	342.53
9745	05/15/2025	X			MOWRBRI	Brianna Mowrey	121.48
9746	05/15/2025	X			POPPCHA	Charmayne Popp	271.48
9747	05/15/2025	X			STUTMAT	Matthew Stutzman	430.90
9748	05/15/2025	X			SUGHDEN	Denise Sughayar	842.53
9749	05/15/2025	X			SWEEZAC	Zachary Sweet	121.48
9750	05/15/2025	X			TRUMJO	Mary Trumbull	140.66
9751	05/15/2025	X			WEBEJAD	Jadyn Weber	121.48
	Check Type Total:		Direct Deposit			Void Total: 0.00 Total without Voids:	161,908.09
	Checking Account Total:		1			Void Total: 874.19 Total without Voids:	384,086.51

Checking Account ID: 4 **Check Type: Check**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
4598	05/14/2025	X			AINSWORTHC	Ainsworth Community Schools	75.00
4599	05/14/2025	X			AINSWGOLF	Ainsworth Municipal Golf Course	90.00
4600	05/14/2025	X			KEARNEYCAT	Kearney Catholic High School	250.00
4601	05/14/2025	X			MULLEN	Mullen Public School	50.00
4602	05/14/2025	X			OVERTO	OVERTON PUBLIC SCHOOL	50.00
4603	05/14/2025				STAPLETONP	Stapleton Public Schools	160.00
4604	05/14/2025				THEDFO	THEDFORD PUBLIC SCHOOL	10.00
4605	05/16/2025				SUTHERL	SUTHERLAND PUBLIC SCHOOL	100.00
4606	05/16/2025	X			USBANK	US Bank	39.00
4607	05/16/2025				WEVEJAN	Janie Weverka	100.00
4608	05/21/2025	X	X	05/21/2025			0.00
4609	05/21/2025	X			CASHSLB	CASH	1,280.00
	Check Type Total:		Check			Void Total: 0.00 Total without Voids:	2,204.00
	Checking Account Total:		4			Void Total: 0.00 Total without Voids:	2,204.00

Checking Account ID: 5 **Check Type: Check**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
2008	05/09/2025	X			DUCKFAY	Fayth Duckett	16.10
2011	05/09/2025	X			FEDDPAI	Paige Feddersen	25.00
14840	05/09/2025	X	X	05/09/2025			0.00
14841	05/09/2025	X	X	05/09/2025			0.00
14842	05/09/2025	X	X	05/09/2025			0.00
14843	05/09/2025	X	X	05/09/2025			0.00
14844	05/09/2025				BAILADD	Addison Bailey	250.00
14845	05/09/2025	X			EDGIJOS	Joslyn Edgington	250.00
14846	05/09/2025	X			HAIDUOT	Uotong Haidle	250.00
14847	05/09/2025				HRUPGRE	Greeley Hrupek	250.00
14848	05/14/2025	X			ANNABELLGA	Annabell Gardens	7,110.00
14849	05/14/2025	X			BLUECR	BLUE CROSS BLUE SHIELD	1,934.17

Checking Account ID: 5 **Check Type: Check**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
14850	05/14/2025	X			BURWELL	BURWELL PUBLIC SCHOOL	421.79
14851	05/14/2025	X			COUNTRYP	Country Partners Cooperative	55.82
14852	05/14/2025	X			ESU10	ESU #10	110.90
14853	05/14/2025	X			JESSBRI	Brittany Jesseph	40.56
14854	05/14/2025	X			LEADERSHIP	The Leadership Center	450.00
14855	05/14/2025	X			MEDINASTRE	The Medina Street Vault	306.00
14856	05/14/2025	X			NEFCCLA	NEBRASKA FCCLA	425.00
14857	05/14/2025	X			WORLDSTRID	World Strides	200.00
14858	05/15/2025	X			AMAZON	Amazon Capital Services, Inc	359.49
14859	05/15/2025	X			CMARKET	Callaway Market	155.57
14860	05/15/2025	X			CASHWA	CASH-WA DISTRIBUTING	200.12
14861	05/15/2025	X			GROCEY	GROCERY KART	85.49
14862	05/15/2025	X			USBANK	US Bank	4,100.00
14863	05/15/2025	X			USBANK	US Bank	6,262.52
14864	05/15/2025	X			USBANK	US Bank	2,723.04
14865	05/15/2025	X			USBANK	US Bank	1,450.93
	Check Type Total:		Check		Void Total:	0.00 Total without Voids:	27,432.50
	Checking Account Total:		5		Void Total:	0.00 Total without Voids:	27,432.50

Checking Account ID: 6 **Check Type: Automatic Payment**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
154	05/12/2025	X			MERCHANTSE	Merchant Services	64.74
	Check Type Total:		Automatic Payment		Void Total:	0.00 Total without Voids:	64.74

Checking Account ID: 6 **Check Type: Check**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
13700	05/15/2025	X			KRANBET	Beth Kranz	750.08
13701	05/15/2025	X			AMERITASLI	Ameritas	34.16
13702	05/15/2025	X			B100	BLUE CROSS BLUE SHIELD	3,552.89
13703	05/15/2025	X			001	Callaway Public Schools - General Fund	1,063.89
13704	05/15/2025	X			003	Callaway Public Schools - General Fund	148.05
13705	05/15/2025				004	Callaway Public Schools - General Fund	1,096.96
13706	05/15/2025	X			OIP	FORT DEARBORN LIFE INSURANCE	63.06
13707	05/15/2025	X			O	FORT DEARBORN LIFE INSURANCE CO	7.00
13708	05/15/2025	X			CMARKET	Callaway Market	770.92
13709	05/15/2025	X			CASHWA	CASH-WA DISTRIBUTING	8,291.69
	Check Type Total:		Check		Void Total:	0.00 Total without Voids:	15,778.70

Checking Account ID: 6 **Check Type: Direct Deposit**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
483	05/15/2025	X			BONDKAI	Kailey Bonde	124.67
484	05/15/2025	X			DONEMEG	Megan Donegan	1,707.77
485	05/15/2025	X			DOGGMAK	MaKayla Waldo	2,608.65
	Check Type Total:		Direct Deposit		Void Total:	0.00 Total without Voids:	4,441.09
	Checking Account Total:		6		Void Total:	0.00 Total without Voids:	20,284.53

Checking Account ID: 8 **Check Type: Check**

Check Number	Check Date	Cleared	Void	Void Date	Entity ID	Entity Name	Amount
1808	05/14/2025	X			REDFERNELE	Redfern Electric LLC	2,500.00
	Check Type Total:		Check		Void Total:	0.00 Total without Voids:	2,500.00
	Checking Account Total:		8		Void Total:	0.00 Total without Voids:	2,500.00
			Grand Total:		Void Total:	874.19 Total without Voids:	436,507.54

Batch Description: 06092025 General Bills Processing Month: 06/2025 Credit Card Vendor ID: End of Fiscal Year Expense Invoices:

Vendor ID: ACEHAR **ACE HARDWARE** **PO Number:** **Invoice Number: 115411** **Amount: 49.98**
Description: Maint/Jan Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 610 000 000	Maint/Jan Supplies		49.98		N	

Vendor ID: AMAZON **Amazon Capital Services, Inc** **PO Number:** **Invoice Number: 14TT-9PG4-3RXW** **Amount: 80.80**
Description: Office Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 610 000 000	Office Supplies		80.80		N	

Vendor ID: AMAZON **Amazon Capital Services, Inc** **PO Number:** **Invoice Number: 1FM3-49GN-JJCT** **Amount: 26.98**
Description: Office Supplies Invoice Date: 06/09/2025 Due Date: 06/09/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 610 000 000	Office Supplies		26.98		N	

Vendor ID: AMAZON **Amazon Capital Services, Inc** **PO Number:** **Invoice Number: 1HRW-WKR9-JR76** **Amount: 99.26**
Description: Summer School Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1300 610 000 000	Summer School Supplies		99.26		N	

Vendor ID: AMAZON **Amazon Capital Services, Inc** **PO Number:** **Invoice Number: 1MDV-4KJG-4JCX** **Amount: 14.20**
Description: Office Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 610 000 000	Office Supplies		14.20		N	

Vendor ID: ATT3 **AT&T** **PO Number:** **Invoice Number: 20250606** **Amount: 117.17**
Description: Long Distance Services Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 000	Long Distance Services		117.17		N	

Vendor ID: CMARKET **Callaway Market** **PO Number:** **Invoice Number: 20250609** **Amount: 444.77**
Description: May Charges Invoice Date: 06/09/2025 Due Date: 06/09/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2410 610 000 000	Helping Hands		30.99		N	
01 2410 610 000 000	ACT Rewards		275.00		N	
01 1100 610 001 050	Science Supplies		33.15		N	
01 1100 610 001 040	FCS Supplies		105.63		N	

Vendor ID: CTRUEV **CALLAWAY TRUE VALUE** **PO Number:** **Invoice Number: 20250609** **Amount: 379.27**
Description: May Charges Invoice Date: 06/09/2025 Due Date: 06/09/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 610 000 000	Maint/Jan Supplies		239.53		N	
01 2710 610 000 000	Bus Barn Supplies		139.74		N	

Vendor ID: CHARRONLAW **Charron Lawn Care & Sprinkler Repair** **PO Number:** **Invoice Number: 20250606** **Amount: 4,365.50**
Description: Dethatch/Aerate/1st Fert Application Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 4,365.50
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Dethatch/Aerate/1st Fert Application		4,365.50	4,365.50	N	

Vendor ID: COACHMASTE **Coach Masters, Inc.** **PO Number:** **Invoice Number: 4870** **Amount: 11,263.12**
Description: Work Done to Coach Bus Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 350 000 000	Work Done to Coach Bus		11,263.12		N	

Vendor ID: COUNTRYP **Country Partners Cooperative** **PO Number:** **Invoice Number: 20250609** **Amount: 2,681.54**
Description: May Charges Invoice Date: 06/09/2025 Due Date: 06/09/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 626 000 000	Transportation Fuel		1,802.05		N	
01 2710 350 000 000	Excursion Break Bleed		109.74		N	
01 2710 610 000 000	TPMS on Ford Van		80.95		N	
01 2710 350 000 000	Inner & Outer Tie Rods		688.80		N	

Vendor ID: CUSTER **CUSTER CO CHIEF** **PO Number:** **Invoice Number: 20250606** **Amount: 65.00**
Description: Custer Co Chief Subscription Renewal Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2220 640 000 000	Custer Co Chief Subscription Renewal		65.00		N	

Vendor ID: ESU10 **ESU #10** **PO Number:** **Invoice Number: 20250606** **Amount: 6,885.80**
Description: May Charges Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2151 591 001 000	Audio - Sec		28.53		N	
01 2151 591 002 000	Audio - Elem		28.53		N	
01 2152 591 002 000	Audio - Ages 3-4		7.13		N	
01 2153 591 002 000	Audio - Birth-2		7.13		N	
01 2161 591 001 000	OT - Sec		529.60		N	
01 2161 591 002 000	OT - Elem		529.60		N	

01 2162 591 002 000	OT - Ages 3-4	132.40	N
01 2163 591 002 000	OT - Birth-2	132.40	N
01 2141 591 001 000	Psych - Sec	1,117.30	N
01 2141 591 002 000	Psych - Elem	1,117.30	N
01 2142 591 002 000	Psych - Ages 3-4	279.33	N
01 2143 591 002 000	Psych - Birth-2	279.33	N
01 1200 591 001 000	SPED Super - Sec	452.67	N
01 1200 591 002 000	SPED Super - Elem	452.67	N
01 1291 591 002 000	SPED Super - Ages 3-4	119.45	N
01 1292 591 002 000	SPED Super - Birth-2	119.45	N
01 2141 591 001 000	LMHP - Sec	750.00	N
01 2141 591 002 000	LMHP - Elem	750.00	N
01 1200 591 001 000	Voc - Sec	52.98	N

Vendor ID: GREAT2 **GREAT PLAINS COMM.** **PO Number:** **Invoice Number: 20250606** **Amount: 53.90**
Description: Fax Line Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 001	Fax Line		53.90		N	

Vendor ID: GREAT2 **GREAT PLAINS COMM.** **PO Number:** **Invoice Number: 20250606-0001** **Amount: 423.87**
Description: Phone/Internet Service Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 001	Phone/Internet Service		423.87		N	

Vendor ID: HINTONSLOC **Hinton's Lock & Alarm** **PO Number:** **Invoice Number: 14354** **Amount: 130.00**
Description: Work on Elem Door Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Work on Elem Door		130.00		N	

Vendor ID: KIMBALLMID **Kimball Midwest** **PO Number:** **Invoice Number: 103388371** **Amount: 193.25**
Description: Bus Barn Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	Bus Barn Supplies		193.25		N	

Vendor ID: LANDMAR **LANDMARK IMPLEMENT, INC** **PO Number:** **Invoice Number: 11906302** **Amount: 337.60**
Description: Parts for Lawn Mower Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 610 000 000	Parts for Lawn Mower		337.60		N	

Vendor ID: LAWNDOCK **Lawen Dock, The** **PO Number:** **Invoice Number: 78** **Amount: 698.21**

Description: Spring Application | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Spring Application		698.21		N	

Vendor ID: MIGHTYDUCT **Mighty Ducts** | **PO Number:** | **Invoice Number: 19655** | **Amount: 900.00**
Description: Kitchen/Dish Exhaust Cleaning | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Kitchen/Dish Exhaust Cleaning		900.00		N	

Vendor ID: NCSA **NCSA** | **PO Number:** | **Invoice Number: 20250609** | **Amount: 600.00**
Description: Nebraska Career Education Conference Reg | Invoice Date: 06/09/2025 | Due Date: 06/09/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 3551	NCE Conference Registration - G Hrupek		300.00		N	
01 3551	NCE Conference Registration - D Sughayar		300.00		N	

Vendor ID: NEBRASKACE **Nebraska Central Equipment, Inc** | **PO Number:** | **Invoice Number: 0174208-IN** | **Amount: 114.02**
Description: Bus 1 Parts | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	Bus 1 Parts		114.02		N	

Vendor ID: PDKS **P-D-K-S** | **PO Number:** | **Invoice Number: 20250609** | **Amount: 800.00**
Description: Exterminator Treatment - Spiders | Invoice Date: 06/09/2025 | Due Date: 06/09/2025 | Status: A | 1099 Amount: 800.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 352 000 000	Exterminator Treatment - Spiders		800.00	800.00	N	

Vendor ID: PRIMESECUR **Prime Secured** | **PO Number:** | **Invoice Number: 96574** | **Amount: 3,075.49**
Description: New PoE + Switch - E-Rate | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2230 650 000 000	New PoE + Switch - E-Rate		3,075.49		N	

Vendor ID: PRIMESECUR **Prime Secured** | **PO Number:** | **Invoice Number: 96723** | **Amount: 469.16**
Description: New PoE + Switch - E-Rate | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2230 650 000 000	New PoE + Switch - E-Rate		469.16		N	

Vendor ID: QUILL **Quill** | **PO Number:** | **Invoice Number: 44077751** | **Amount: 257.94**
Description: Copy Paper | Invoice Date: 06/06/2025 | Due Date: 06/06/2025 | Status: A | 1099 Amount: 0.00
Sequence: 1 | Check Type: | Checking Account ID: | Check Number: | Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1100 610 000 010	Copy Paper		257.94		N	

Vendor ID: REPFITNESS **REP Fitness** **PO Number:** **Invoice Number: SO658883** **Amount: 493.98**
Description: Bumper Plates - Weight Room Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1100 610 001 070	Bumper Plates - Weight Room		493.98		N	

Vendor ID: STUDEN **STUDENT ACTIVITY FUND** **PO Number:** **Invoice Number: 20250606** **Amount: 50.14**
Description: Reimb - FCS Supplies Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1100 610 001 040	Reimb - FCS Supplies		50.14		N	

Vendor ID: SYNDICATEP **Syndicate Publishing** **PO Number:** **Invoice Number: 22866** **Amount: 151.83**
Description: May BOE Minutes Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2310 540 000 000	May BOE Minutes		151.83		N	

Vendor ID: TEAMPHYSIC **Team Physical Therapy** **PO Number:** **Invoice Number: 20250606** **Amount: 1,355.36**
Description: May Charges Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2171 320 001 000	PT - Sec		456.00		N	
01 2171 320 002 000	PT - Elem		596.48		N	
01 2173 320 002 000	PT - Birth-2		302.88		N	

Vendor ID: USBANK **US Bank** **PO Number:** **Invoice Number: 20250609** **Amount: 2,333.64**
Description: May Charges Invoice Date: 06/09/2025 Due Date: 06/09/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 1100 610 001 040	FCS Supplies		14.36		N	
01 2510 580 000 000	NASBO Convention Hotel Rm - T Lisby		347.90		N	
01 2320 580 000 000	NASBO Convention Hotel Rm - JD Furrow		347.90		N	
01 2120 610 000 000	Grad Gift for Seniors - Grant		43.95		N	
01 1100 610 002 000	TPT - K Brogan		15.00		N	
01 1100 610 002 000	TPT - C Leibhart		2.75		N	
01 6200 610 002 000	TPT - W Dockweiler		22.00		N	
01 1100 610 002 000	TPT - N Rush		6.25		N	
01 1100 610 002 000	Time for Kids - K Brogan		66.00		N	
01 1100 610 002 000	Time for Kids - C Anderson		66.00		N	
01 1100 610 002 000	Time for Kids - K Meyer		88.00		N	

01 1100 610 001 070	Strength Bands - Weight Room	212.79	N
01 1100 610 001 070	OVR Jump & OVR Velocity - Weight Room	1,005.00	N
01 1100 610 002 000	TPT - C Anderson	79.75	N
01 2410 610 000 000	Zoom Subscription	15.99	N

Vendor ID: VERIZO **VERIZON WIRELESS** **PO Number:** **Invoice Number: 20250606** **Amount: 77.91**
Description: Student Use Cellphone Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2510 530 000 000	Student Use Cellphone		77.91		N	

Vendor ID: VILLAG **VILLAGE OF CALLAWAY** **PO Number:** **Invoice Number: 20250606** **Amount: 97.75**
Description: May Charges Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 410 000 000	Bus Barn - W/S		28.00		N	
01 2610 621 000 000	Bus Barn - Electricity		69.75		N	

Vendor ID: VILLAG **VILLAGE OF CALLAWAY** **PO Number:** **Invoice Number: 20250606-0001** **Amount: 2,761.49**
Description: May Charges Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 410 000 000	School - W/S/T		245.00		N	
01 2610 621 000 000	School - Electricity		2,516.49		N	

Vendor ID: VILLAG **VILLAGE OF CALLAWAY** **PO Number:** **Invoice Number: 20250606-0002** **Amount: 68.27**
Description: May Charges Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2610 410 000 000	101 S Needham - W/S/T		44.00		N	
01 2610 621 000 000	101 S Needham - Electricity		24.27		N	

Vendor ID: WENQUI **WENQUIST INC.** **PO Number:** **Invoice Number: 434601** **Amount: 118.00**
Description: EarPlug - Bus Barn Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	EarPlug - Bus Barn		118.00		N	

Vendor ID: WENQUI **WENQUIST INC.** **PO Number:** **Invoice Number: 435248** **Amount: 14.99**
Description: Pinch-Off Pliers - Bus Barn Invoice Date: 06/06/2025 Due Date: 06/06/2025 Status: A 1099 Amount: 0.00
Sequence: 1 Check Type: Checking Account ID: Check Number: Check Date:

Chart of Account Number	Detail Description	Cost Center ID	Detail Amount	1099 Detail Amount	Asset/Asset Tag	In Full
01 2710 610 000 000	Pinch-Off Pliers - Bus Barn		14.99		N	

Batch 1099 Total: 5,165.50 Batch Total: 42,050.19

Report 1099 Total:	5,165.50
Report Total:	42,050.19

705.01 - LOCAL, STATE, FEDERAL, OR MISCELLANEOUS REVENUE

Local

The Board of Education, through the adoption of the annual budget, shall prepare an estimate of the amount of money to be raised by taxation for the ensuing school year, the rate required to produce the amount, and the rate necessary to sustain the district meeting principal and interest payments on the bonded indebtedness and providing the funds to meet other legitimate district purposes.

Whenever it becomes necessary, in the judgment of the Board, to increase the tax rate beyond the authorized level (the amount last approved by the voters of the district or as subsequently revised according to law), the Board shall determine the rate of taxation necessary to be levied in excess of the existing rate and submit the proposition to the voters of the district.

State

The Board of Education will accept all available state funds to which the district is entitled by law or through regulations of the State Board of Education and/or Nebraska Department of Education. State funds, both categorical and general, are based upon objective formulae. The superintendent shall be responsible for ensuring that the district files the required reports and forms to secure the amount of state funds to which it is entitled.

Federal

Applications shall be made for federal funds when available, provided that none of the conditions of acceptance is in conflict with state law, the policies, rules and procedures of the Board of Education and the objectives of the district. The school district shall comply with all federal requirements governing these moneys, and shall account for each federal project separately and expend said funds as authorized by the approved project application only.

Legal reference: Neb. statute 79-1084

77-3444

Approved _____ Reviewed _____ Revised _____

705.02 - USAGE FEES, ADMISSIONS AND ROYALTIES

The board may permit the use of district facilities for civic and recreational purposes. A schedule of fees to be charged nonschool related groups for the use of school facilities for various events may be established and periodically reviewed by the board. This revenue shall be used for the purpose of furthering the educational opportunity of the district´s students. All such transactions will be carried out in accordance with state law.

Although the board will avoid lease arrangements that involve it in property management activities, temporary use of surplus real property by another public agency, private individual, or other legal entity may be authorized by the board.

Such use will be for a fixed term and subject to regulations and written agreement designed to protect the school district from any expense, loss, or liability arising out of such use. These lease arrangements will be based on a sealed bid for no more than a three-year period, with the district retaining the right to redeem the property for school purposes, if necessary.

When an application for use of a particular school facility has been approved, responsibility for maintaining records and for collecting and remitting and/or disbursing fees will rest with the principal of the specific school involved. The principal will collect all fees from the user at the time the approved application is filed, and will make necessary arrangements for custodial services required.

[The Superintendent will establish and maintain a special account titled "Building Rental and Service" for all collections and disbursements in connection with community use of the property.]

[Rental fees and any fees collected for use of school facilities will be deposited in the district´s general fund unless otherwise specified by the board.]

Cross Reference: 710 Disposition of School Property

1006.01 Community Use of School District Buildings,

Sites and Equipment

Approved _____ Reviewed _____ Revised _____

705.03 - FREE ADMISSIONS PASSES

The following persons will be issued free guest passes for all school activities, including athletic events:

1. All full time district employees and current board members, and immediate dependent family members.

2. Resident senior citizens (65 years of age or older);

3. Volunteers (doctors, fire department, police department);

4. Officials who perform frequently at athletic events (scorekeepers, public address personnel, photographers);

In addition, MNAC Conference and Nebraska Schools Activities Association (NSAA) passes will be honored.

Children under age six, accompanied by an adult, may be admitted free.

Legal Reference: Neb. Statute 79-518

Approved _____ Reviewed _____ Revised _____

707.03 - EXPENSE AUTHORIZATION AND REIMBURSEMENT

District employees who incur expenses in carrying out their authorized duties will be reimbursed upon submission of a properly completed and approved voucher and receipts as required by the *[business office]*.

Such expenses may be incurred and approved in line with budgetary allocations for specific types of expenses.

Expenses for travel will be reimbursed when the travel has the advance authorization of the *[superintendent]*. The superintendent may grant authorization without prior board action when the travel expense has been anticipated and incorporated into the operational budget of the program involved. The board will later ratify such approval.

Persons who travel at district expense will exercise the same economy as a prudent person traveling on personal business and will differentiate between business expenditures and those for personal convenience.

The board authorizes the superintendent to establish regulations controlling vehicle allowance payments to employees for use of private vehicles in transaction of school district business and reimbursement for educational meetings transportation and lodging costs.

[The mileage rate, unless in a collective bargaining agreement or individual employment contract, for travel by private vehicle will be set by the State of Nebraska.]

Reimbursement for out-of-state travel by private vehicle will be made on the basis of air fare or mileage rate, whichever is lower.

Approved _____ Reviewed _____ Revised _____

708.01 - INSURANCE PROGRAM

The district administrators will work with providers of the district´s health insurance program to obtain accurate and detailed information describing employee insurance benefits and the procedures governing those benefits. This may include the scheduling of an annual review by representatives of the insurance provider to explain changes to the benefits program.

Approved _____ Reviewed _____ Revised _____

801.02 - SPECIAL EDUCATION STUDENT TRANSPORTATION

Transportation of students who require special education services shall generally be provided as for other students, when appropriate. Specialized transportation of a student to and from a special education instructional service is a function of that service and, therefore, an appropriate expenditure of special education instructional funds generated through the weighting plan.

Transportation of special education students shall be specified in the individual education program. When the IEP team determines that unique transportation arrangements are required and the arrangements are specified in the IEP, the school district will provide one or more of the following transportation arrangements for instructional services or support services:

- Transportation from the student's residence to the location of the special education or care services and back to the student's residence.

- Special assistance or adaptations in getting the student to and from and on and off the vehicle, en route to and from the special education.

- Reimbursement of the actual costs of transportation when by mutual agreement the parents provide transportation for the student to and from the special education.

Legal Reference: 20 U.S.C. §§ 1401, 1701 et seq. (1994).

34 C.F.R. Pt. 300 et seq. (1996).

Approved _____ Reviewed _____ Revised _____

801.07 - SUMMER SCHOOL PROGRAM TRANSPORTATION SERVICE

The school district may use school vehicles for transportation to and from summer extracurricular activities. The superintendent shall make a recommendation to the board annually regarding their use.

Transportation to and from the student's attendance center for summer school instructional programs shall be within the discretion of the board. It shall be the responsibility of the superintendent to make a recommendation regarding transportation of students in summer school instructional programs at the expense of the school district. In making the recommendation to the board, the superintendent shall consider the financial condition of the school district, the number of students involved in summer school programs, and other factors deemed relevant by the board or the superintendent.

Cross Reference: 604.02 Summer School Instruction

Approved _____ Reviewed _____ Revised _____

801.09 - TRANSPORTATION OF NONSCHOOL GROUPS

School district vehicles may be available to local nonprofit entities which promote cultural, educational, civic, community, or recreational activities for transporting to and from nonschool-sponsored activities within the state as long as the transportation does not interfere with or disrupt the education program of the school district and does not interfere with or delay the transportation of students. The local nonprofit entity must pay the cost of using the school district vehicle as determined by the superintendent. Prior to making the school district transportation vehicle available to the local nonprofit entity, the "school bus" signs shall be covered and the flashing warning lamps and the stop arm made inoperable.

Cross Reference: 1001 Principles and Objectives for Community Relations

Approved _____ Reviewed _____ Revised _____

802.06 - VENDING MACHINES

Food served or purchased by students during the school day and food served or purchased for other than special circumstances shall be approved by the superintendent. Vending machines in the school building shall be the responsibility of the building principal. Purchases from the vending machines, other than juice machines, shall not be made during the lunch periods.

It shall be the responsibility of the superintendent to develop administrative regulations for the use of vending machines and other sales of food to students.

Legal Reference: 42 U.S.C. §§ 1751 et seq. (1994).

Approved _____ Reviewed _____ Revised _____

803.01 - PHOTOCOPYING SERVICES

Among the facilities available to teachers in carrying out their educational assignments are a variety of machines for reproducing the written and spoken word, either in single or multiple copies.

Infringement on copyrighted material, whether prose, poetry, graphic images, music, audio tape, video or computer-programmed materials, is a serious offense against federal law and contrary to the ethical standards required of staff and students alike.

Violations may result in criminal or civil suits.

Employees shall follow policy and guidelines of policy 606.08 Reproduction of Copyrighted Materials.

Cross Reference: 606.08 Reproduction of Copyrighted Materials

Approved _____ Reviewed _____ Revised _____

901.00 - OBJECTIVES OF BUILDINGS & SITES

This series of the board policy manual sets forth the board objectives and goals for the school district's buildings and sites. It shall be the goal of the board to provide sufficient school district buildings and sites for the education program. The board shall strive to provide an environment which will encourage and support learning.

In providing this environment the school district buildings and sites will accommodate the organizational and instructional patterns that support the education program. The board shall have final authority to determine what is necessary to meet the needs of the education program.

It shall be the responsibility of the superintendent to oversee the day-to-day operations of the school buildings and sites and to notify the board of areas in need of improvement.

Approved _____ Reviewed _____ Revised _____

902.01 - BUILDINGS & SITES LONG RANGE PLANNING

As part of the board's long range plan for the school district's education program, the board shall include the buildings and sites needs for the education program. The long-term needs for building and sites shall be discussed and determined by the board.

It shall be the responsibility of the superintendent to provide information including, but not limited to, enrollment projections and education program requirements to the board.

Cross Reference: 104 Educational and Operational Planning

Approved _____ Reviewed _____ Revised _____

902.02 - CONSTRUCTION PLANS AND SPECIFICATIONS

The board may engage the services of consultants or other personnel to study the needs of the school district's buildings and sites in providing the education program. The results of these services will be considered in planning the education program and in making decisions about the improvement and acquisition of additional buildings and sites.

In any construction involving architecture or engineering with a cost contemplated to exceed $118,000, and an amount as periodically adjusted by state statute, the board shall engage an architect, a professional engineer, or a person or persons under the direct supervision of an architect or professional engineer to prepare the plans, specifications and estimates for the construction.

It shall be the responsibility of the superintendent to make a recommendation to the board regarding the need for such services and who should perform such services for the board.

Buildings considered for purchase or construction by the board or currently owned by the school district and used for the education program must meet, or upon improvement be able to meet, the specifications set by the board. The board shall make this determination.

Prior to construction or renovation of buildings and sites the board shall make a determination of the method by which it will obtain construction services. If the board elects by a seventy-five percent affirmative vote to use the Construction Management at Risk or Design-Build methods rather than the traditional Design-Bid-Build method, policies for that respective method must be established prior to selecting the construction services provider.

Prior to remodeling or other construction of buildings and sites, the board may appoint a committee of consultants, employees, citizens, or others to assist the board in developing the specifications for the new or improved buildings and sites. These specifications shall be consistent with the education program, and they shall provide the architect with the information necessary to determine what is expected from the facility. It shall be within the discretion of the board to determine whether a committee shall be appointed.

It shall be the responsibility of the superintendent to make a recommendation to the board regarding the specifications of buildings and sites.

Legal Reference: Neb. Statute 81-3445

Cross Reference: 104 Educational and Operational Planning

Approved _____ Reviewed _____ Revised _____

902.03 - SITE ACQUISITION

Sites acquired by the board shall meet or, upon improvement, be able to meet the specifications set out by the board prior to using the site for the education program. The board may meet in closed session to discuss potential purchases of sites.

It shall be the responsibility of the superintendent to assist the board and to make recommendations concerning the acquisition of sites.

Cross Reference: 204.06 Closed Sessions

706.01 Purchasing Procedures

Approved _____ Reviewed _____ Revised _____

902.05 - CONSTRUCTION MANAGEMENT AT RISK SCHOOL CONSTRUCTION ALTERNATIVE

The school district adopts this policy in the event it resolves to use the construction management at risk (CM at risk) construction delivery process. Prior to using the CM at risk process on a specific construction project, the school district shall review information on file with the State Department of Education, and may consult legal counsel, to assist the board in determining the current eligibility of the proposed project under limitations established by the Nebraska Schools Construction Alternatives Act. The board shall then adopt such a resolution by a two-thirds affirmative vote.

Following the acquisition of professional architectural or engineering services as required for the project, the board shall utilize this policy to evaluate, select and contract with a construction manager for the delivery of construction services.

Definitions

1. Construction management at risk contract means a contract by which a construction manager (a) assumes the legal responsibility to deliver a construction project within a contracted price to the school district, (b) acts as a construction consultant to the school district during the design development phase of the project when the school district's architect or engineer designs the project, and (c) is the builder during the construction phase of the project;

2. Construction manager means the legal entity which proposes to enter into a construction management at risk contract under this policy;

3. Letter of interest means a statement indicating interest to enter into a construction management at risk contract for a project under this policy;

4. Project performance criteria means the performance requirements of the project suitable to allow the construction manager to make a proposal. Performance requirements include the following, if required by the project: Capacity, durability, standards, ingress and egress requirements, description of the site, surveys, soil and environmental information concerning the site, interior space requirements, material quality standards, design and construction schedules, site development requirements, provisions for utilities, storm water retention and disposal, parking requirements, applicable governmental code requirements, and other criteria for the intended use of the project;

5. Proposal means an offer in response to a request for proposals by a construction manager to enter into a construction management at risk contract for a project under this policy;

6. Request for letters of interest means the documentation or publication by which the school district solicits letters of interest;

7. Request for proposals means the documentation by which the school district solicits proposals.

Procedural Regulations

The board directs the superintendent to promulgate regulations detailing the following procedures:

1. Procedures and standards to be used to prequalify construction managers. The procedures and standards shall provide that the school district in consultation with its architect/engineer will evaluate prospective construction managers based on the information submitted to the school district in response to a request for letters of interest and will select construction managers who are prequalified and consequently eligible to respond to the request for proposals;

2. Procedures for the preparation and content of requests for proposals;

3. Procedures for preparing and submitting proposals;

4. Procedures for evaluating proposals;

5. Procedures for negotiations between the school district and the construction managers submitting proposals prior to the acceptance of a proposal if any such negotiations are contemplated;

6. Procedures for filing and acting on formal protests relating to the solicitation or execution of construction management at risk contracts.

Letters of Interest

The school district shall prepare a request for letters of interest for CM at risk proposals and shall prequalify construction managers in accordance with this policy. The request for letters of interest shall describe the project in sufficient detail to permit a construction manager to submit a letter of interest.

The request for letters of interest shall be (a) published in a newspaper of general circulation within the school district at least thirty days prior to the deadline for receiving letters of interest and (b) sent by first-class mail to any construction manager upon request.

Letters of interest shall be reviewed by the school district in consultation with the architect/engineer. The school district shall select prospective construction managers in accordance with the procedures described above. The school district shall select at least three prospective construction managers except that if only two construction managers have submitted letters of interest, the school district shall select at least two prospective construction managers. The selected construction managers shall then be considered prequalified and eligible to receive requests for proposals.

Requests for Proposals

The school district shall prepare a request for proposals for each construction management at risk contract in accordance with this policy. At least thirty days prior to the deadline for receiving and opening proposals, notice of the request for proposals shall be published in a newspaper of general circulation within the school district and filed with the State Department of Education.

The request for proposals shall be sent only to the construction managers selected under the prequalification procedures of this policy.

The request for proposals shall contain, at a minimum, the following elements:

1. The identity of the school district for which the project will be built and the school district that will execute the contract;

2. Policies adopted by the school district governing the CM at risk construction process;

3. The proposed terms and conditions of the contract, including any terms and conditions which are subject to further negotiation. The proposed terms and conditions may set forth an initial determination of the manner by which the construction manager selects any subcontractor and may require that any work subcontracted be awarded by competitive bidding. The proposed general terms and conditions shall be consistent with the standard model general terms and conditions issued by one of the following:

a) The American Institute of Architects (AIA);

b) The Engineer's Joint Contract Documents Committee (EJCOC); or

c) The Association of General Contractors of America (AGC);

d) The Design-Build Institute of America (DBIA).

4. Any bonds and insurance required by law or as may be additionally required by the school district;

5. General information about the project which will assist the school district in its selection of the construction manager, including a project statement which contains information about the scope and nature of the project, the project site, the schedule, and the estimated budget;

6. The criteria for evaluation of proposals and the relative weight of each criterion; and

7. A description of any other information which the school district chooses to require.

Receiving and Evaluating Proposals

Proposals shall be sealed and shall not be opened until expiration of the time established for making proposals as set forth in the request for proposals.

Proposals may be withdrawn at any time prior to acceptance. The school district shall have the right to reject any and all proposals except for the purpose of evading the provisions and policies of the Nebraska Schools Construction Alternatives Act. The school district may then solicit new proposals using the same or different project performance criteria.

The school district shall evaluate and rank each proposal on the basis of best meeting the criteria in the request for proposals and taking into consideration the recommendation of the selection committee.

Selection Committee

In evaluating proposals the school district shall refer the proposals for recommendation to a selection committee. The selection committee shall be a group of at least five persons designated by the board and shall include the following:

1. members of the school board;

2. members of the school administration or staff;

3. the school's architect or engineer;

4. any person chosen by the board for providing expertise relevant to selection of a construction manager under the Nebraska Schools Construction Alternatives Act; and

5. a resident of the school district not included in the four preceding subsections.

A member of the selection committee designated under subdivision (4) or (5) of this subsection shall not be employed by or have a financial or other interest in a construction manager who has a proposal being evaluated and shall not be employed by the school district or the district's architect/engineer.

The selection committee and the board shall evaluate proposals taking into consideration the criteria enumerated below when applicable, with the maximum percentage of total points for evaluation which may be assigned to each as shown:

1. The financial resources of the construction manager to complete the project, ten percent;

2. The ability of the proposed personnel of the construction manager to perform, thirty percent;

3. The character, integrity, reputation, judgment, experience, and efficiency of the construction manager, thirty percent;

4. The quality of performance on previous projects, thirty percent;

5. The ability of the construction manager to perform within the time specified, thirty percent;

6. The previous and existing compliance of the construction manager with laws relating to the contract, ten percent; and

7. Such other information as may be secured having a bearing on the selection, twenty percent.

The board shall assign a specific relative weight for each criterion. The same set of criteria and associated relative weights shall be used by both the selection committee and the board in the evaluation process.

The selection committee shall keep and maintain permanent records of the committee proceedings including, but not limited to, records of the minutes of meetings, and documentation received or disclosed in open session of the meetings.

The committee shall appoint a board member or district employee to keep the minutes of the committee meetings. The minutes of each meeting shall include as a minimum the following items: a record of the date, time, place, members present, action taken and the vote of each member. The records of the committee shall be placed on public file with the central administration office.

Contract Negotiations

The school district shall attempt to negotiate a construction management at risk contract with the highest ranked construction manager and may enter into a construction management at risk contract after negotiations. The negotiations shall include a final determination of the manner by which the construction manager selects a subcontractor. If the school district is unable to negotiate a satisfactory contract with the highest ranked construction manager, the school district may terminate negotiations with that construction manager.

The school district may then undertake negotiations with the second highest ranked construction manager and may enter into a construction management at risk contract after negotiations. If the school district is unable to negotiate a satisfactory contract with the second highest ranked construction manager, the school district may undertake negotiations with the third highest ranked construction manager, if any, and may enter into a construction management at risk contract after negotiations.

The school district shall file a copy of all construction management at risk contract documents with the State Department of Education within thirty days after their full execution. Within thirty days after completion of the project, the construction manager shall file a copy of all contract modifications and change orders with the department.

If the school district is unable to negotiate a satisfactory contract with any of the ranked construction managers, the school district may either revise the request for proposals and solicit new proposals or cancel the construction management at risk process.

Final Contracts

A construction management at risk contract may be conditioned upon later refinements in scope and price and may permit the school district in agreement with the construction manager to make changes in the project without invalidating the contract. Later refinements shall not exceed the scope of the project statement contained in the request for proposals.

The CM at risk contract shall not be used for a construction project with locations on parcels of land which are not contiguous except for specialty maintenance projects. A specialty maintenance project is a construction project for the maintenance of an existing facility with a specialty contractor, such as an electrical contractor or plumbing contractor. Parcels are considered contiguous if they would be contiguous but for the

existence of a public road.

Legal Reference: Neb. Statute 79-2001 to 2015

81-1701 et seq.

84-712

Cross Reference: 1006.01 Community Use of School District Buildings, Sites and Equipment

Approved _____ Reviewed _____ Revised _____

902.06 - DESIGN-BUILD SCHOOL CONSTRUCTION ALTERNATIVE

The school district adopts this policy in the event it resolves to use the design-build construction process. Prior to using the design-build process on a specific construction project, the school district shall review information on file with the State Department of Education, and may consult legal counsel, to assist the board in determining the current eligibility of the proposed project under limitations established by the Nebraska Schools Construction Alternatives Act. The board shall then adopt such a resolution by a seventy-five percent affirmative vote.

The board shall utilize this policy to evaluate, select and contract with a design-build firm for the delivery of design and construction services.

Definitions

1. Design-build contract means a contract which is subject to qualification-based selection between a school district and a design-builder to furnish (a) architectural, engineering, and related design services for a project under this policy and (b) labor, materials, supplies, equipment, and construction services for a project under this policy;

2. Design-builder means the legal entity which proposes to enter into a design-build contract which is subject to qualification-based selection under this policy;

3. Letter of interest means a statement indicating interest to enter into a design-build contract for a project under this policy;

4. Performance-criteria developer means any person licensed or any organization issued a certificate of authorization to practice architecture or engineering pursuant to the Engineers and Architects Regulation Act who is selected by a school district to assist the school district in the development of project performance criteria, requests for proposals, evaluation of proposals, evaluation of the construction under a design-build contract to determine adherence to the performance criteria, and any additional services requested by the school district to represent its interests in relation to a project;

5. Project performance criteria means the performance requirements of the project suitable to allow the design-builder to make a proposal. Performance requirements include the following, if required by the project: Capacity, durability, standards, ingress and egress requirements, description of the site, surveys, soil and environmental information concerning the site, interior space requirements, material quality standards, design and construction schedules, site development requirements, provisions for utilities, storm water retention and disposal, parking requirements, applicable governmental code requirements, and other criteria for the intended use of the project;

6. Proposal means an offer in response to a request for proposals by a design-builder to enter into a design-build contract for a project pursuant under this policy;

7. Qualification-based selection process means a process of selecting a design-builder based first on the qualifications of the design-builder and then on the design-builder's proposed approach to the design and construction of the project;

8. Request for letters of interest means the documentation or publication by which the school district solicits letters of interest;

9. Request for proposals means the documentation by which the school district solicits proposals.

Procedural Regulations

The board directs the superintendent to promulgate regulations detailing the following procedures:

1. Procedures for selecting and hiring on its behalf a performance-criteria developer when soliciting and executing a design-build contract. The procedures shall be consistent with the Nebraska Consultants' Competitive Negotiation Act and shall provide that the performance-criteria developer is ineligible to be included as a provider of any services in a proposal for the project on which it has acted as performance-criteria developer and is not employed by or does not have a financial or other interest in a design-builder or construction manager who will submit a proposal;

2. Procedures and standards to be used to prequalify design-builders. The procedures and standards shall provide that the school district will evaluate prospective design-builders based on the information submitted to the school district in response to a request for letters of interest and will select design-builders who are prequalified and consequently eligible to respond to the request for proposals;

3. Procedures for the preparation and content of requests for proposals;

4. Procedures for preparing and submitting proposals;

5. Procedures for evaluating proposals;

6. Procedures for negotiations between the school district and the design-builders submitting proposals prior to the acceptance of a proposal if any such negotiations are contemplated;

7. Procedures for filing and acting on formal protests relating to the solicitation or execution of design-build contracts; and

8. Procedures for the evaluation of construction under a design-build contract by the performance-criteria developer to determine adherence to the performance criteria.

Letters of Interest

The school district shall prepare a request for letters of interest for design-build proposals and shall prequalify design-builders in accordance with this policy. The request for letters of interest shall describe the project in sufficient detail to permit a design-builder to submit a letter of interest.

The request for letters of interest shall be (a) published in a newspaper of general circulation within the school district at least thirty days prior to the deadline for receiving letters of interest and (b) sent by first-class mail to any design-builder upon request.

Letters of interest shall be reviewed by the school district in consultation with the performance-criteria developer. The school district shall select prospective design-builders in accordance with the procedures of this policy. The school district shall select at least three

prospective design-builders except that if only two design-builders have submitted letters of interest, the school district shall select at least two prospective design-builders. The selected design-builders shall then be considered prequalified and eligible to receive requests for proposals.

Requests for Proposals

The school district shall prepare a request for proposals for each design-build contract. Notice of the request for proposals shall be published in a newspaper of general circulation within the school district and filed with the State Department of Education at least thirty days prior to the deadline for receiving and opening proposals.

The request for proposals shall be sent only to the design-builders selected under the prequalification procedures of this policy.

The request for proposals shall contain, at a minimum, the following elements:

1. The identity of the school district for which the project will be built and the school district that will execute the design-build contract;

2. Policies adopted by the school district governing the design-build process;

3. The proposed terms and conditions of the design-build contract, including any terms and conditions which are subject to further negotiation. The proposed terms and conditions may set forth an initial determination of the manner by which the design-builder selects any subcontractor and may require that any work subcontracted be awarded by competitive bidding. The proposed general terms and conditions shall be consistent with the standard model general terms and conditions issued by one of the following:

a) The American Institute of Architects (AIA);

b) The Engineer's Joint Contract Documents Committee (EJCOC);

c) The Association of General Contractors of America (AGC); or

d) The Design-Build Institute of America (DBIA).

4. A project statement which contains information about the scope and nature of the project;

5. Project performance criteria

6. Budget parameters for the project;

7. Any bonds and insurance required by law or as may be additionally required by the school district;

8. The criteria for evaluation of proposals and the relative weight of each criterion;

9. A requirement that the design-builder provide a written statement of the design-builder's proposed approach to the design and construction of the project, which may include graphic materials illustrating the proposed approach to design and construction but shall not include price proposals;

10. A requirement that the design-builder agree to the following conditions:

(a) An architect or engineer licensed to practice in Nebraska will participate substantially in those aspects of the offering which involve architectural or engineering services;

(b) At the time of the design-build offering, the design-builder will furnish to the school board a written statement identifying the architect or engineer who will perform the architectural or engineering work for the design-build project;

(c) The architect or engineer engaged by the design-builder to perform the architectural or engineering work with respect to the design-build project will have direct supervision of such work and may not be removed by the design-builder prior to the completion of the project without the written consent of the school board;

(d) A design-builder offering design-build services with its own employees who are design professionals licensed to practice in Nebraska will (i) comply with the Engineers and Architects Regulation Act by procuring a certificate of authorization to practice architecture or engineering and (ii) submit proof of sufficient professional liability insurance; and

(e) The rendering of architectural or engineering services by a licensed architect or engineer employed by the design-builder will conform to the Engineers and Architects Regulation Act and the Nebraska Schools Construction Alternatives Act; and

11. Other information which the school district chooses to require.

Receiving and Evaluating Proposals

Design-builders shall submit proposals as required by the request for proposals. The school district may only proceed to negotiate and enter into a design-build contract if there are at least two proposals from prequalified design-builders.

Proposals shall be sealed and shall not be opened until expiration of the time established for making proposals as set forth in the request for proposals.

Proposals may be withdrawn at any time prior to acceptance. The school district shall have the right to reject any and all proposals except for the purpose of evading the provisions and policies of the Nebraska Schools Construction Alternatives Act. The school district may then solicit new proposals using the same or different project performance criteria.

The school district shall rank in order of preference the design-builders pursuant to the criteria in the request for proposals and taking into consideration the recommendation of the selection committee.

Selection Committee

In evaluating proposals, the district shall refer the proposals for recommendation to a selection committee. The selection committee shall be a group of at least five persons designated by the board and shall include the following:

1. members of the school board;

2. members of the school administration or staff;

3. the performance-criteria developer;

4. any person chosen by the board for providing special expertise relevant to selection of a design-builder under the Nebraska Schools Construction Alternatives Act; and

5. a resident of the school district not included in the four preceding subdivisions.

A member of the selection committee designated under subdivision (4) or (5) of this subsection shall not be employed by or have a financial or other interest in a design-builder who has a proposal being evaluated and shall not be employed by the school district or the performance-criteria developer.

The selection committee and the board shall evaluate proposals taking into consideration the criteria enumerated below when applicable, with the maximum percentage of total points for evaluation which may be assigned to each as shown:

1. The financial resources of the design-builder to complete the project, ten percent;

2. The ability of the proposed personnel of the design-builder to perform, thirty percent;

3. The character, integrity, reputation, judgment, experience, and efficiency of the design-builder, thirty percent;

4. The quality of performance on previous projects, thirty percent;

5. The ability of the design-builder to perform within the time specified, thirty percent;

6. The previous and existing compliance of the design-builder with laws relating to the contract, ten percent; and

7. Such other information as may be secured having a bearing on the selection, twenty percent.

The board shall assign a specific relative weight for each criterion. The same set of criteria and associated relative weights shall be used by both the selection committee and the board in the evaluation process.

The selection committee shall keep and maintain permanent records of the committee proceedings including, but not limited to, records of the minutes of meetings, and documentation received or disclosed in open session of the meetings.

The committee shall appoint a board member or district employee to keep the minutes of the committee meetings. The minutes of each meeting shall include as a minimum the following items: a record of the date, time, place, members present, action taken and the vote of each member. The records of the committee shall be placed on public file with the central administration office.

Contract Negotiations

The school district may attempt to negotiate a design-build contract with the highest ranked design-builder selected by the school district and may enter into a design-build contract after negotiations. The negotiations shall include a final determination of the manner by which the design-builder selects a subcontractor. If the school district is unable to negotiate a satisfactory design-build contract with the highest ranked design-builder, the school district may terminate negotiations with that design-builder.

The school district may then undertake negotiations with the second highest ranked design-builder and may enter into a design-build contract after negotiations. If the school district is unable to negotiate a satisfactory contract with the second highest ranked design-builder, the school district may undertake negotiations with the third highest ranked design-builder, if any, and may enter into a design-build contract after negotiations.

The school district shall file a copy of all design-build contract documents with the State Department of Education within thirty days after their full execution. Within thirty days after completion of the project, the design-builder shall file a copy of all contract modifications and change orders with the department.

If the school district is unable to negotiate a satisfactory contract with any of the ranked design-builders, the school district may either revise the request for proposals and solicit new proposals or cancel the design-build process.

Final Contracts

The design-build contract may be conditioned upon later refinements in scope and price and may permit the school district in agreement with the design-builder to make changes in the project without invalidating the contract. Later refinements shall not exceed the scope of the project statement contained in the request for proposals.

The design-build contract shall not be used for a construction project with locations on parcels of land which are not contiguous except for specialty maintenance projects. A specialty maintenance project is a construction project for the maintenance of an existing facility with a specialty contractor, such as an electrical contractor or plumbing contractor. Parcels are considered contiguous if they would be contiguous but for the

existence of a public road.

Legal Reference: Neb. Statute 79-2001 to 2015

81-1701 et seq.

84-712

Cross Reference: 1006.01 Community Use of School District Buildings, Sites and Equipment

Approved _____ Reviewed _____ Revised _____

903.02 - ACCESS TO BUILDINGS

Security for district buildings and grounds (during regular school hours as well as non-school hours) contributes to the well being and safety of students and staff as well as to that of the sites themselves.

The superintendent will control access to district buildings as appropriate and necessary to protect property, students and personnel.

Principals will control access to school buildings and will provide safeguards against unauthorized access to these buildings. Each principal, with the superintendent´s approval, will develop regulations designed to control the use of building keys and to ensure that buildings are adequately closed and locked when no authorized personnel are present. Staff or students who fail to obey such regulations may be disciplined, suspended or dismissed.

During regular school hours, flow of traffic into and out of buildings shall be closely monitored and limited to certain doors. Visitors shall be required to check in to show proper identification and reason for being at the school and shall wear name tags identifying them as visitors. This will not apply when parents/guardians have been invited to a classroom or assembly program.

Access to school buildings and grounds outside of regular school hours shall be limited to personnel whose work requires it and to sponsors of approved student activities.

Approved _____ Reviewed _____ Revised _____

903.03 - MAINTENANCE SCHEDULE

The school district buildings and sites, including the grounds, buildings and equipment, will be kept clean and in good repair. Employees should notify the building principal when facilities are in need of repair or the removal of litter or graffiti.

It shall be the responsibility of the superintendent to maintain the school district buildings and sites. As part of this responsibility, a maintenance schedule shall be created and adhered to in compliance with this policy.

Cross Reference: 504.07 Care of School Property and Vandalism

504.09 Student Lockers

Approved _____ Reviewed _____ Revised _____

903.04 - REQUESTS FOR IMPROVEMENTS

Generally, except for emergency situations, requests for improvements or repairs shall be made to the superintendent by building principals and the head custodian. Requirements for requests outlined in the district´s maintenance procedures shall be followed.

Minor improvements, not exceeding a cost of $_____, may be approved by the superintendent. Improvements exceeding $ _____ must be approved by the board. Routine maintenance and repairs outlined in the maintenance schedule shall be followed.

Approved _____ Reviewed _____ Revised _____

903.04 - REQUESTS FOR IMPROVEMENTS

Generally, except for emergency situations, requests for improvements or repairs shall be made to the superintendent by building principals and the head custodian. Requirements for requests outlined in the district´s maintenance procedures shall be followed.

Minor improvements, not exceeding a cost of $5,000, may be approved by the superintendent. Improvements exceeding $ 5,000 must be approved by the board. Routine maintenance and repairs outlined in the maintenance schedule shall be followed.

Approved _____ Reviewed _____ Revised _____

903.06 - BUILDINGS AND GROUNDS RECORDS AND REPORTS

Losses incurred through fire, theft, accident or vandalism will be reported to the *[superintendent]* as soon as they are discovered. The *[superintendent]* may report such losses to an appropriate agency as well as to the board.

[The board expects the superintendent through the [head of maintenance] to prepare and maintain maintenance services' records and reports. Such records and reports will include, but not be limited to:

- *maintenance work orders for non-contract work;*
- *maintenance work orders and costs records of all contract maintenance work;*
- *utility records and invoices;*
- *heating, ventilating and air conditioning equipment maintenance records and reports; and*
- *annual costs analysis of the maintenance program specific to each district building.]*

Approved _____ Reviewed _____ Revised _____

903.07 - TRAFFIC AND PARKING PROCEDURES

Driving and parking on or near school property (Fair Board Land, streets near the school) are privileges granted by the board to persons who have reasons to be in the schools or on school property. The principals shall authorize parking areas and post notices on district property designated for staff, student, visitor parking and parking for persons with disabilities and other classifications of parking areas as may be necessary.

Any vehicle not parked in authorized areas may be cited or towed away and stored. All charges for towing and storing will be the responsibility of the owner or operator of the vehicle.

Any person failing to abide by the districts parking regulations may be further prohibited from bringing any vehicle on school property.

The Superintendent will establish regulations as necessary for the use and control of staff and student parking areas around their buildings. Such regulations will be made available to staff, students and parents.

Cross Reference: 801.12 Student Transportation in Private Vehicles

Approved _____ Reviewed _____ Revised _____

903.08 - VANDALISM

The board believes everyone should treat school district buildings and sites and property with respect for the benefit of the education program. Users of school district property shall treat it with care. Employees discovering vandalism should report it to the building principal as soon as possible.

Persons suspected, found or proven to have destroyed or otherwise harmed school district property may be subject to discipline by the school district, if the person is under the jurisdiction of the school district, and may be reported to local law enforcement officials. Persons who are not under the jurisdiction of the school district and who are suspected, found or proven to have destroyed or otherwise harmed school district property shall be reported to the local law enforcement authorities.

The superintendent, the principal or their designees are authorized to sign a criminal complaint against persons suspected of vandalism against school property. It is the intent of the board to seek damages as permitted by law from anyone who vandalizes school property and/or their parents or guardians.

Cross Reference: 504 Students Rights and Responsibilities

1005.08 Public Conduct on School Premises

Approved _____ Reviewed _____ Revised _____

903.09 - ENERGY CONSERVATION

In concert with the board's goal to utilize public funds in an effective and efficient manner, employees and students shall practice energy conservation methods when utilizing the school district's buildings and sites. These methods include, but are not limited to, turning off lights and equipment when not in use, reducing the temperature of the facility, particularly when it is not in use, and keeping windows and doors properly closed or open, depending upon the weather.

It shall be the responsibility of the superintendent to develop energy conservation guidelines for employees and students. Employees and students shall abide by these guidelines.

Approved _____ Reviewed _____ Revised _____

905.03 - WARNING SYSTEMS

The school district shall maintain a warning system designed to inform students, employees, and visitors in the facilities of an emergency. This system shall be maintained on a regular basis under the maintenance plan for school district buildings and sites.

Students shall be informed of this system according to board policy. Each classroom and office shall have a plan for helping those in need of assistance to safety during an emergency. This shall include, but not be limited to, students and employees with disabilities.

Certificated employees shall be responsible for instructing students on the proper techniques to be followed during an emergency. It shall be the responsibility of the superintendent to implement this policy.

Cross Reference: 508 Student Health and Well-Being

801.04 Bus Safety Program

Approved _____ Reviewed _____ Revised _____

905.05 - HAZARDOUS MATERIALS

Friable and nonfriable asbestos containing materials will be maintained in good condition and appropriate precautions will be followed when the material is disturbed. If there is a need to replace asbestos it will be replaced with nonasbestos based materials. Each school building will maintain a copy of the asbestos management plan.

The school district will appoint and train appropriate employees as necessary. An accredited inspector shall visually inspect all areas identified in the management plan every six months and complete the required records and reports.

Legal Reference: 20 U.S.C. §§ 3601 et seq. (1994).

40 C.F.R. Pt. 763 (1996).

Cross Reference: 903 Maintenance, Operation and Management

Approved _____ Reviewed _____ Revised _____

905.10 - ASBESTOS CONTROL

It is the policy of Callaway Public Schools to follow the AHERA regulations concerning the inventory and management of asbestos containing material within its buildings.

The district will implement the rules of AHERA and will provide the necessary funding to undertake the required response actions. The district will appoint and train, as necessary, a designated person as required by regulation and this person will be responsible for the management of all asbestos related activities.

Notification will be submitted to all employees, parents and guardians and make known to the public in general that there is an asbestos management plan for each building under the governance of the district and this plan may be reviewed upon request or copied and provided to interested parties at the cost of reproduction. Record of this notification shall be maintained by the district.

Administrative Guidelines

A designated person will be designated by the Board each year at the August meeting and as such shall have responsibility and authority in these departments and areas of district programming necessary to assure that the covenants of AHERA are followed and appropriate public health and hygiene is observed in all areas that may relate to asbestos and safeguarding the health of building occupants.

Although the designated person is authorized to execute the program related to asbestos according to federal regulations; the district shall indemnity the designated person against any criminal or civil actions, administrative or investigative and against all attorney fees, judgment, fines and amounts paid in settlement actually and reasonably incurred by such individual provided he/she acted in good faith and in a manner reasonably believed to be in the best interest of the district and had no reasonable cause to believe that any of his/her actions was unlawful in the event of any criminal complaint and provide all further indemnity as provided in Section 79 4 R. R. S. NEB. subject to all conditions thereof.

Remodeling and Renovation

Friable and nonfriable asbestos containing material will be maintained in good condition and appropriate precautions will be followed when the material is disturbed for any reason. If there is a reason to replace asbestos it will be replaced with nonasbestos bearing material following approved procedures and using certified personnel.

Any project within the district designated for renovation/remodeling will be referred for review and signed approval to the office of the asbestos designated person. It will be the designated person's responsibility to review construction specifications and plans andestablish guidelines wherein, should these activities potentially cause or promote contamination, appropriate procedures can be readily followed to preclude contamination.

Shut Down and Immediate Rest

The asbestos designated person will have the authority to immediately shut down a building area at any time and initiate engineering controls to safeguard health and safety of building occupants, should emergency asbestos exposure episodes require such response in the opinion of the asbestos program manager.

Staff Training

All new buildings and grounds employees will participate in a two hour training to orient them to the existence of asbestos in the buildings to which they are attached and to address appropriate concerns relative to direct contact with asbestos. This training must occur within 60 days; however, it would be preferable to conduct the training within 30 days. These individuals will not be authorized to touch, amend or in any other pattern directly respond to asbestos bearing building products.

Any employee who is required to repair or work with asbestos containing material will be fully trained (16 hour or 24 hour) prior to work assignment.

Priori and Maintenance of Records

Based upon regulatory concerns and potential civil litigation, there shall be a priority for rapid and thorough clerical response toward development and maintenance of records relating to the following activities:

- all asbestos related training
- all renovation, remodeling or demolition that may involve asbestos
- all asbestos abatement activities, including operations and maintenance, encapsulation, encasement and removal
- all disposal manifests and records of disposed asbestos evolving from building material controlled by the district
- all notifications to parents/guardians, employees, and students regarding the presence of asbestos
- all art procedures which may involve asbestos contact

The asbestos designated person will review all activities that may involve direct contact with asbestos bearing materials.

Response Action Schedule

All activities and dates suggested within the ongoing asbestos management plan will be complied with unless a form determination is made in writing that sections of the plan should be changed. Major changes will be communicated to parents/guardians and employees for review and will be made available to the public.

New or Newly Acquired Property

Before a new or newly acquired building is utilized for any purpose within the district, there will be formal written assurance by the asbestos designated person that appropriate public health and compliance procedures have occurred relative to the building.

Ongoing Inspections

There shall be a visual inspection every six months of all asbestos bearing or assumed to be asbestos bearing materials in each building. In addition, federally certified inspectors will inspect the building in their entirety on a three year basis, completing appropriate forms and

reports as required under AHERA. Following episodic water damage, those areas denoted in the plan as susceptible to water damage will be inspected.

Response to Damaged Materials

If during a periodic surveillance check or in any other situations a building employee finds damaged asbestos bearing material, the incident will be reported to the asbestos designated person who will:

- consider emergency response activities (isolate area, etc.)
- repair the damaged area.
- remove the damaged material if, due to technological factors, it is not feasible to repair the damage.
- maintain all asbestos bearing material in an intact state and undamaged condition
- record all activities relating to asbestos exposure

Respirator Guidelines

The Board has adopted the following guidelines for the respiratory protection program in the school.

The following guidelines are designed to help reduce employee exposures against occupational dusts, fumes, gases, and vapors. The primary objective is to prevent excessive exposure to these contaminants. Where feasible, exposure to contaminants will be eliminated by engineering controls (Example: general and local ventilation, enclosure or isolation, and substitution of a less hazardous process or material). When effective engineering controls are not feasible, use of personal respiratory protective equipment may be required to achieve this goal.

The district will provide the proper respiratory equipment, at the district's expense, to meet the needs of all properly trained personnel. The school's designated person will have the responsibility to determine the proper equipment. The employees involved will be provided with approved training and instructions on all respiratory equipment they will use.

The school's designated person will have the responsibility to determine what specific operations and applications require the use of the proper respiratory equipment.

Operations and maintenance supervisors and/or the designated person are responsible for insuring that all personnel under their control are completely knowledgeable of the respiratory protection requirements for the areas in which they work. They are also responsible for insuring that their subordinates comply with all facets of the respiratory program, including respirator inspection and maintenance.

It is the responsibility of the employee to have an awareness to the respiratory protection requirements for their work areas (as explained by the designated person). Employees are also responsible for wearing the appropriate respiratory equipment according to proper instructions and for maintaining the equipment in a clean and operable condition.

Pre employment physical examinations by a doctor designated by the district are conducted on all employees who will become operations and maintenance personnel to assure that they

are in an adequate healthy condition (physically able to perform their work and can use respiratory equipment). Forms for this physical are available at the administrative office.

Respirators are selected and approved by the designated person. The selection is based upon the physical and chemical properties of the air contaminants and the concentration level likely to be encountered by the employee. The designated person will make a respirator filters, prefilters, and necessary replacement parts will be made available and are required.

Employees required to wear a respirator must be fitted properly and tested for a face seal prior to use of the respirator in a contaminated area.

Qualitative fit testing is acceptable as a reliable method to check the face to respirator seal. The district will utilize banana oil or saccharin test agents. Irritant smoke will not be used.

The following points should be considered for respirator inspection and maintenance.

1. The wearer of a respirator will inspect it monthly. Inspection and maintenance information will be recorded by the designated person.

2. Whenever in use, respirators will be cleaned on a daily basis, according to the manufacturer's instructions, by the employee.

3. Respirators will be stored in a suitable container away from excessive heat, sunlight, or areas of contamination.

4. Respirators will be marked or stored in such a manner to assure that they are worn only by the assigned employee.

Approved _____ Reviewed _____ Revised _____

1001.00 - PRINCIPLES AND OBJECTIVES FOR COMMUNITY RELATIONS

Successful education programs require the support of the school district community. The board addresses the importance of the role of the school district community in the school district in this series of the policy manual. The board recognizes this support is dependent on the school district community's understanding of participation in the efforts, goals, problems and programs of the school district.

In this section, the board sets out its policies defining its relationship with the school district community. In striving to obtain the support of the school district community, the board will:

- Provide access to school district records;

- Inform the school district community of the school district's goals, objectives, achievements, and needs;

- Invite the input of the school district community; and,

- Encourage cooperation between the school district and the school district community.

Approved _____ Reviewed _____ Revised _____

1004.02 - NEWS CONFERENCES AND INTERVIEWS

The superintendent, on behalf of the board and the school district, may hold a news conference or respond to a request for an interview with the news media.

The superintendent shall respond accurately, openly, honestly, and objectively to inquiries from the news media about the school district.

News conferences and interviews planned or pre-arranged for school district activities shall include the board and the superintendent. News conferences for issues requiring an immediate response may be held by the superintendent. It shall be within the discretion of the superintendent to determine whether a news conference or interview shall be held to provide an immediate response to an issue.

It shall be the responsibility of the superintendent to keep the board apprised of news conferences and interviews.

Information about school activities and issues will be provided to the community in a way which will create and maintain a dignified and professionally responsible image for the district.

The procedures listed below will be followed in giving official information to the news media:

1. The board president will be the official spokesman for the board, unless this duty is delegated;

2. News releases that are of districtwide interest or that pertain to established district policy will be the responsibility of the superintendent;

3. The superintendent will establish regulations for the dissemination of news releases pertaining to the district.

When individual board members receive requests from press media representatives for information about board meetings or actions, members will refer these representatives to the board president, who is the spokesman for the board. The president may designate others to speak on behalf of the board at his/her discretion.

Press conferences will be authorized by the board president.

Nothing in this policy is intended to limit the rights of individual board members to speak their personal opinions.

Approved _____ Reviewed _____ Revised _____

1004.03 - LIVE BROADCAST OR VIDEOTAPING

Within the limitations described below, individuals may broadcast or videotape public school district events, including open board meetings, as long as it does not interfere with or disrupt the school district event and it does not create an undue burden in adapting the buildings and sites to accommodate the request.

It shall be within the discretion of the superintendent to determine whether the request is unduly burdensome and whether the broadcast or videotaping will interfere with or disrupt the school district event.

In addition to limitations on recording or transmitting image or sound in policy 504.12 referenced below, anyone recording or transmitting any sound or image of any person (including themselves) must have the prior consent of the person or persons being recorded or whose image or sound is being transmitted. This requirement applies to all persons, including staff, students, volunteers, and community members, at district facilities or attending district sponsored events. This policy does not apply to District-sponsored athletic events or activities where the focus of the recording or transmission is on the student performances or activity. Nothing in this policy shall prohibit the recording of an Individualized Education Program meeting when necessary to implement parental rights as guaranteed by the Individuals with Disabilities Education Act or in conducting meetings to implement Section 504.

News media coverage of sports and other special events is encouraged. Radio broadcasts of events will be arranged through the superintendent's office. Videotaping of classroom activities will be allowed at the discretion of the superintendent. Parents will be notified prior to videotaping of classroom activities.

It shall be the responsibility of the superintendent to implement this policy and for handling requests for other broadcasting or videotaping activities.

Approved _____ Reviewed _____ Revised _____

1005.02 - PARENT RELATIONS GOALS

It is the general goal of the district to foster relationships with parents which encourage cooperation between the home and school in establishing and achieving common educational goals for students. The board believes parents should be active participants in education by demonstrating interest in and support for their school and the district, by becoming informed about their role as partners in education, and by becoming involved in the education of their children.

While parents are individually responsible for their children, the district provides direct services of education and indirect services of child care for students during the time when they are within the supervision of school personnel. Consistent with these shared responsibilities and as appropriate to the maturity of the student, members of the school staff will consult with parents regarding student progress and achievement, methods to enhance student development, and matters of correction.

Additionally, parental involvement in the schools is encouraged through regular communication with the school principal and staff, the parent/teacher organizations, the school volunteer program, and other opportunities for participation in school activities and district programs. It is assumed that the relationship described in the general goal is fostered if the district will:

- consult with and encourage parents to share in school planning, in setting objectives, and evaluating programs;
- help parents understand the education process and their role in promoting this process;
- provide for parent understanding of school operations;
- provide opportunities for parents to be informed of their child's development and the criteria for its measurement; and
- help parents improve in their role as parents.

Cross Reference: 508.07 Custody and Parental Rights

611.01 Student Progress Reports

611.04 Parent Conferences

Approved _____ Reviewed _____ Revised _____

1005.05 - COMMUNITY INVOLVEMENT IN DECISION MAKING

The Board endorses the concept that community participation in school affairs is essential if the school system and the community are to maintain mutual confidence and respect and work together to improve the quality of education for students. It therefore intends to exert every effort to identify the community´s desires and to be responsive, through its actions, to those desires.

All district citizens will be encouraged to express their ideas, concerns and judgments about the schools through such means as: (1) written suggestion(s) or proposal(s); (2) presentations at hearings; (3) responses to surveys made through interviews, written instruments or other means; (4) comments at Board meetings; and (5) service on citizens´ advisory committees and school improvement teams.

The public advice will be given careful consideration. In evaluating such advice, the first concern will be for the educational program as it affects students. The Board´s final decisions may depart from public advice when, in the judgment of staff and the Board, such advice is not consistent with goals adopted by the Board or with good educational practice or within available financial resources.

Approved _____ Reviewed _____ Revised _____

1005.06 - COMMUNITY RESOURCE PERSONS AND VOLUNTEERS

The board recognizes the valuable resource it has in the members of the school district community. When possible and in concert with the education program, members of the school district community may be asked to make presentations to the students or to assist employees in duties other than teaching. The school district may officially recognize the contributions made by volunteers.

Recruitment, training, utilization, and the maintenance of records for the purposes of insurance coverage or recognition of school district volunteers are responsibilities of the superintendent.

Approved _____ Reviewed _____ Revised _____

403.07 - EMPLOYEE USE OF SOCIAL NETWORKS

The Superintendent and Administrative Team will annually remind staff members and orient new staff members concerning the importance of maintaining proper decorum in the on-line, digital world as well as in person. Employees must conduct themselves in ways that do not distract from or disrupt the educational process. The orientation and reminders will give special emphasis to:

1. Improper fraternization with students using Facebook and similar internet sites or social networks, or via cell phone, texting or telephone.

2. Staff members may not list current students, who are non-family members, as "friends" on social networking sites.

3. Inappropriate contact via e-mail or phone is prohibited.

    a) Inappropriateness of posting items with sexual content

    b) Inappropriateness of posting items exhibiting or advocating use of drugs and alcohol

    c) Examples of inappropriate behavior from other districts, as behavior to avoid

Monitoring and penalties for improper use of district computers and technology

The possibility of penalties, including dismissal from employment, for failure to exercise good judgment in on-line conduct.

All online communication by District employees during the school day, using District resources, or on behalf of the District is subject to District policies. Employees shall maintain a standard of professional responsibility and conduct, realizing their online actions at work and at home represent the District.

The network systems administrator may periodically conduct internet searches to see if teachers have posted inappropriate materials on-line. When inappropriate use of computers and websites is discovered, the Principals and Superintendent will promptly bring that inappropriate use to the attention of the staff member and may consider and apply disciplinary action up to and including termination.

Approved _____ Reviewed _____ Revised _____

502.04 - ATTENDANCE CENTER ASSIGNMENT

The board shall have complete discretion to determine the boundaries for each attendance center, to assign students to the attendance centers, and to assign students to the classrooms within the attendance center.

It shall be the responsibility of the superintendent to make recommendations to the board regarding the division of students among attendance centers. In making the recommendations, the superintendent shall consider the geographical layout of the school district, the condition and location of the school district facilities, the location of student population, possible transportation difficulties, financial condition of the school district and other factors deemed relevant by the superintendent or the board.

Cross Reference: 503.01 Compulsory Attendance

Approved _____ Reviewed _____ Revised _____

502.11 - ASSIGNMENT OF CONTINUING STUDENTS TO CLASS

Pupils will be enrolled in grades and classes in which they can be expected to master established district instructional/learning objectives. All pupils who are included under the compulsory school attendance law must be enrolled and required to attend all classes prescribed by the state and the district Board of Education unless exempt by the school authorities.

Pupils will be assigned to the grade level in elementary and middle schools, or be enrolled in classes recommended by the principal consistent with state guidelines, the recommendations of teachers, through academic achievement tests and other evaluation measures. Ability to meet district grade-subject and course instructional/learning objectives will be a major factor in grade level assignment.

High school students will be classified in certain grades according to the following criteria:

• Freshman (ninth grade student) -A student in his/her first year of a four-year senior high school or a student with sufficient credits to expect graduation* in four years.

• Sophomore (tenth grade student)-A student in the second year of enrollment in a four-year senior high school who has earned sufficient credits to expect graduation* in three years.

• Junior (eleventh grade student) - A student with two or more years of enrollment in a senior high school who has earned sufficient credit to expect graduation* in two years.

• Senior (twelfth grade student) -A student with three or more years of enrollment in a senior high school who has earned sufficient credit to expect graduation* in one year.

* Students may reasonably expect to graduate if they earn the required credits by successfully completing a full schedule of classes. They may not expect graduation or a class promotion if they must gain extra credit from an overload schedule, summer school or correspondence work.

Legal Reference: Neb. Statute 79-526

Cross Reference: 100 District Organization and Basic Commitments

503 Student Attendance

Approved _____ Reviewed _____ Revised _____

503.06 - STUDENTS OF LEGAL AGE

Students who have attained legal age (19) may continue the education program without payment of tuition as long as they have not graduated from high school, are eligible to attend a Nebraska public school and are residents of the school district.

Parents will be allowed to access and view the student's records without written permission from the student if the student is still a dependent for tax purposes. In most cases, with the discretion of the principal or the superintendent, the student will be able to make decisions and sign documents rather than requiring parental permission or signature.

Legal Reference: Neb. Statute 43-2101

79-1126

20 U.S.C. § 1232g (1994).

Cross Reference: 507 Student Records

Approved _____ Reviewed _____ Revised _____

504.02 - STUDENT INVOLVEMENT IN DECISION MAKING

Students are in a unique position to make positive contributions to the improvement of the educational program and to the operation of a more effective school system.

It is the Board's belief that students, in keeping with their level of maturity, should be encouraged to participate in the development of policies, regulations, and procedures which affect them. Their participation in decision making will be considered part of the educational process.

As appropriate to the age of students, class or school organizations such as student councils may be formed to offer practice in self government and to serve as channels for the expression of student ideas and opinions.

The Board, through the staff, will take into consideration student opinions in establishing policies which directly affect student programs, activities, privileges, and other areas of student sensitivity.

Students will be welcomed at Board meetings and granted privileges of speaking in line with such privileges extended the general public.

Cross Reference: 204.12 Public Participation at Board Meetings

506 Student Activities

Approved _____ Reviewed _____ Revised _____

504.13 - USE OF METAL DETECTORS

When the administration has reasonable cause to believe that weapons are in the possession of unidentified students, when there has been a pattern of weapons found at school or when violence involving weapons has occurred at the school or at school sponsored events, the administration shall be authorized to use stationary or mobile metal detectors in accordance with procedures approved by the Board.

Any search of a student's person as a result of the activation of the detector shall be conducted in private in accordance with the policy on Searches, Seizures and Arrests.

Cross Reference: 505 Student Discipline

Approved _____ Reviewed _____ Revised _____

504.23 - SUICIDE AWARENESS AND ASSESSMENT

Required Training

The board wishes to ensure that appropriate staff training for suicide awareness and prevention as required by state statutes is conducted on an annual basis. All district nurses, teachers, counselors, school psychologists, administrators, school social workers, and any other appropriate personnel shall receive at least one hour of such training each year.

The training should include such topics as how to identify appropriate mental health services both within the school and also within the larger community, and when and how to refer youth and their families to those services.

It shall be the responsibility of the superintendent to implement and monitor this training.

Assessment Program

In its commitment to protect the health, safety, and welfare of its students, and to reduce the risk of suicide or suicide attempts among the student population, the board directs school personnel to develop a program of suicide risk assessment, identification, counseling, and response within the schools. These measures, strategies, practices, and supports will be used by employees who regularly interact with students to promote the students' mental and physical well-being. Nothing in this policy shall be interpreted to impose a specific duty of care.

Definitions

At-Risk for Suicide shall mean any youth with risk factors or warning signs that increase the likelihood of suicidal behavior.

Prevention refers to efforts that seek to reduce the factors that increase the risk for suicidal thoughts and behaviors and increase the factors that help strengthen, support, and protect individuals from suicide.

Protective Factors refers to characteristics associated with a lower likelihood of negative outcomes or that reduces a risk factor's impact. Protective factors may be seen as positive countering events.

Resilience is the process of adapting well in the face of adversity, trauma, tragedy, threats, or significant sources of stress or "bouncing back" from difficult experiences.

Risk Factors refers to characteristics at the biological, psychological, family, community, or cultural level that precede and are associated with a higher likelihood of negative outcomes, including suicide.

School Connectedness shall mean the belief by students that adults and peers in the school care about their learning as well as about them as individuals.

School Personnel include, but may not be limited to, administrators, teachers, school-based behavioral health professionals (e.g., school counselor, school psychologist, school social worker), paraprofessionals, support staff, coaches, bus drivers, custodians and cafeteria workers.

Suicide shall refer to death caused by self-directed injurious behavior with intent to die as a result of the behavior.

Suicidal Act or Suicide Attempt shall mean a potentially self-injurious behavior for which there is evidence that the person intended to kill him/herself; a suicidal act may result in death, injuries, or no injuries.

Suicide Threat shall mean a verbal or nonverbal communication that an individual intends to harm him/herself with the intention to die but has not acted on the behavior.

Warning Signs are evidence-based indicators, often observable, that someone may be in danger of suicide, either immediately or in the very near future.

Crisis Response Team

The district shall establish a Crisis Response Team. The team may include, but is not limited to, administrators, school counselors, school psychologists, school nurses, school social workers, school safety and security personnel, and/or teachers and other employees who regularly interact with the students. Outside health agency resources may also be called upon for assistance. A letter of agreement between the district and any community providers is encouraged prior to commencement of any crisis response services. Each building shall designate a Crisis Response Team Coordinator and that individual shall be identified in student handbooks and on the district's website.

The Crisis Response Team should also include individuals designated as coordinators and/or investigators in district policy on cases involving harassment, as required under federal law. These individuals will help identify overlapping risk factors, including hostile environments created by persistent or severe harassment on the basis of gender, race, disability, or other protected classes.

Members of the Crisis Response Team should receive additional suicide awareness and prevention education in addition to the basic suicide awareness training required by state law to educate them in the importance of suicide prevention, the recognition of suicide risk factors and warning signs, and how to respond. Staff education should also include strategies to enhance protective factors, resilience, and school connectedness.

Student Health Education

Age-appropriate student health education in accordance with state health education standards may include but is not limited to the following:

1. Adherence to safe and effective messaging guidelines, avoiding graphic testimonials, and inclusion of reputable suicide prevention resources.
2. Informing students about broader behavioral health issues such as depression and substance abuse, as well as specific risk/protective factors and warning signs for suicide.
3. Encouraging students to seek help for themselves or their peers, including when concerns arise via social media or other online media, and to avoid making promises of confidence when they are concerned about the safety of a peer; and/or
4. Promoting a healthy school climate where students feel connected to and can identify trusted adults in the building.

Intervention/Prevention

Information received in confidence from a student may be revealed to the student's parents or guardians, the building principal or other appropriate authority when the health, welfare or safety of the student or other persons is clearly in jeopardy.

Any school personnel who observe a student exhibiting a warning sign for suicide, or who has another indication that a student may be contemplating suicide, shall refer the student for risk assessment and intervention to the building principal or the Crisis Response Team Coordinator. In the absence of an immediate warning sign for suicide, students demonstrating suicide risk factors that appear to be adversely impacting the student should be referred to the Crisis Response Team Coordinator.

Any school personnel who are made aware of any threat or witness any attempt towards self-harm that is written, drawn, spoken, or threatened shall immediately notify the building principal or the Crisis Response Team Coordinator. Any threat in any form shall be treated as real and dealt with immediately. In cases of suicidal thoughts and behaviors, a student's confidentiality will be waived.

For students with disabilities who are identified as being at risk for suicide or who attempt suicide, the Crisis Response Team Coordinator shall also notify the Director of Special Education to address the student's needs in accordance with applicable law, regulations and board policy.

Procedures for Parental Involvement

Parents or guardians of a student identified as being at risk of suicide must be immediately notified by the school and must be involved in consequent actions and provided with appropriate available resources.

Response to Suicide Attempt

The Crisis Response Team will develop guidelines for responding to a suicide attempt on school grounds or during a school-sponsored event including notifications of appropriate persons, for responding to a suicide death, and for post-incident procedures, which shall

include methods for informing the school community, identifying and monitoring at-risk youth, and providing resources and supports for students, staff, and families.

Legal Reference: 79-2,146

Approved _____ Reviewed _____ Revised _____

506.03 - STUDENT GOVERNMENT

The student council provides for student activities, serves as a training experience for student leaders, promotes the common good, gives students a share in the management of the school, develops high ideals of personal conduct, acts as a clearinghouse for student activities, seeks to interest students in school district affairs and helps solve problems that may arise. Members of the council are student representatives who have direct access to the administration.

One student council officer will be elected by the entire student body in an election simulating real voting conditions. One student council officer will be elected by school faculty.

Student council membership is available to all students who volunteer to serve in the organization. Council officers will be elected by a vote of the council members.

The principal, in conjunction with the students and certified employees, shall set forth the guidelines for the student government's elections, operations, and other elements of the government.

Cross Reference: 504 Student Rights and Responsibilities

Approved _____ Reviewed _____ Revised _____

506.04 - STUDENT ADVISORY COUNCILS

In lieu of, or in addition to, the Student Council, the board may on occasion appoint Student Advisory Councils to provide information and suggestions to the board from the students' point of view regarding specific areas of school operations directly affecting the student body. These councils shall continue for a duration determined by the board and shall be composed of such students as recommended by the superintendent or principals.

Cross Reference: 504.02 Student Involvement in Decision Making

Approved _____ Reviewed _____ Revised _____

506.07 - STUDENT PERFORMANCES

Students, as part of the education program, may participate in contests or other public and private events approved by the superintendent that will be of benefit to the student and the education program. Performance at such events is a privilege.

Students, who perform at such events, serve as ambassadors of the school district and must conduct themselves in the same manner as required in the regular school day. Students who fail to abide by this policy and the administrative regulations supporting it may be subject to disciplinary measures.

Students will be allowed to perform in these events only with proper permission and supervision and when the events do not disrupt the education program or other school district operations. The events must be approved by the superintendent, unless it involves unusual travel and expense, in which case the board must approve of the performance.

It shall be the responsibility of the superintendent, in conjunction with the principal, to develop administrative regulations regarding this policy. In developing the administrative regulations, these guidelines should be followed:

- Performances by student groups below the high school level should be allowed on a limited basis;

- All groups of students should have an opportunity to participate; and,

- Extensive travel by one group of students should be discouraged.

- Students will not accept payment for public performances when they represent their schools, either as individuals or as members of some school group.

It shall be within the discretion of the superintendent to determine whether the event will benefit the education program and the participating students. Contests or other performances by students unapproved by the superintendent shall be the responsibility of the parent and the student.

Legal Reference: Hazelwood School District v. Kuhlmeier, 484 U.S. 260 (1988).

Cross Reference: 504 Student Rights and Responsibilities

Approved _____ Reviewed _____ Revised _____

507.03 - STUDENT PHOTOGRAPHS

The board will permit student "portrait" photographs to be taken on school premises by a commercial photographer as a service to the students and their families.

Parents will be notified prior to the taking of pictures by a commercial photographer for student "portraits." In no case will students be required to have their picture taken or be pressured to purchase pictures.

Students or commercial photographers may take pictures of students upon consent for such things as the yearbook or student newspaper.

It shall be the responsibility of the superintendent, in conjunction with the principal, to develop rules as necessary to implement this policy.

Approved _____ Reviewed _____ Revised _____

507.04 - STUDENT LIBRARY CIRCULATION RECORDS

Student library circulation records are designed to be used internally to assist in the orderly administration of the school district libraries and media center. As a general rule, student library circulation records are considered confidential records and will not be released without parental consent. Individuals who may access such records include a student's parents, the student, authorized licensed employees, authorized government officials from the U.S. Comptroller General, the Secretary of Education, the Commissioner and Director of the National Institute of Education, and the Assistant Secretary for Education and State Education Department. Appropriate authorities in a health or safety emergency may access the student's library circulation records without the approval or the notification of the student's parents.

It shall be the school librarian's responsibility, as the person maintaining the student library circulation records, to approve requests for access to student library circulation records. Students' library circulation records may be accessed during the regular business hours of the school district. If copies of documents are requested, a fee for such copying shall be charged.

It shall be the responsibility of the superintendent, in conjunction with the school librarian, to develop administrative regulations regarding this policy.

Legal Reference: 20 U.S.C. § 1232g (1994).

34 C.F.R. Pt. 99 (1996).

Approved _____ Reviewed _____ Revised _____

508.10 - REFERRAL OF STUDENTS TO OTHER AGENCIES

School employees having knowledge of or reasonable cause to suspect that a child is abused or neglected will report the circumstances to the Nebraska Department of Health and Human Services or a local law enforcement agency according to the child abuse reporting procedures of Policy 403.02.

In the case of a suspected violation of law, any questioning and apprehension of students by law enforcement authorities will be conducted according to Policy 504.17.

Legal Reference: Neb. Statute 28-711

Cross Reference: 403.02 Child Abuse Reporting

504.17 Questioning of Students by Outside Agencies

Approved _____ Reviewed _____ Revised _____

508.11 - DEFIBRILLATORS

The board recognizes that from time to time emergencies may arise that justify the use of an Automated External Defibrillator (AED). The district will maintain an automatic external defibrillator on the premises of the school. The AED shall be used in emergency situations warranting its use by individuals specifically trained in application of the device through a program meeting the standards of the American Heart Association. The device will not be administered by anyone without training.

The defibrillator shall be maintained and tested in accordance with operational guidelines of the manufacturer and monitored by the school nurse.

The automatic external defibrillator will be kept on school property and will not accompany EMS personnel to a hospital emergency room.

It shall be the responsibility of the superintendent, in conjunction with the building principal, to implement this policy.

Approved _____ Reviewed _____ Revised _____

602.03 - OPEN OR CLOSED CAMPUS

The campuses of the district are closed and students after arrival for morning classes will not, without permission of the principal, leave the campus for any purpose until they have completed their school requirements for the day.

Juniors and seniors may leave the campus during the lunch hour for the purpose of driving home for lunch with a parent or guardian signed Open Campus form on file in the office. Students arriving late for the following class period will be cited for tardiness. The principal may revoke the open campus privilege for any student due to excessive tardiness or other violations of the student code of conduct.

Those students who are on the downs list will lose their Open Campus privilege the week after the downs list is run. Parents or guardians will be responsible to contact the office if they wish to have their student's open campus privilege removed.

Cross Reference: 503 Student Attendance

504.01 Student Due Process Rights

505 Student Discipline

Approved _____ Reviewed _____ Revised _____

603.03 - CURRICULUM GUIDES AND COURSE OUTLINES

Curriculum guides and course outlines will be written for all courses offered in the district. L.E.A.R.N.S. (Leading Educational Achievement through Rigorous Nebraska Standards) as adopted by the State Board of Education will be included. Teachers are expected to adhere closely to the course of study adopted by the district. Information regarding course offerings will be made available to all students and interested district patrons, upon request.

Approved _____ Reviewed _____ Revised _____

604.16 - USE OF ARTIFICIAL INTELLIGENCE IN THE SCHOOL

The board recognizes the potential benefits of Artificial Intelligence (AI) in enhancing educational outcomes and requiring innovative teaching practices, in part because this technology is already available to many students at home. This policy aims to ensure the responsible use of AI technologies within the school district along with teaching and homework strategies that consider the probability that students can easily access AI outside the school.

Artificial Intelligence Definition:

AI involves the operation of computer systems that process natural language to perform tasks that normally require human intelligence, such as the construction of complex responses to inquiries, visual perception in images or videos, speech recognition, decision-making, and translation between languages. It can generally expand, modify, and clarify its responses through repeated requests or additional specific directions. Commonly used AI systems include ChatGPT, Bard, Cohere Generate, DALL-E, Claude, and Synthesia but many AI systems are available for specific purposes and it is the administrators' responsibility to choose those suitable for an educational environment.

Ethical Considerations:

Any use of AI as part of the district's instructional program should prioritize its educational value, while avoiding discrimination and minimizing unwanted outcomes. Only AI platforms approved by the district with appropriate filters for preventing the use of discriminatory, hateful or otherwise inappropriate responses shall be used by the district. The use of AI by students to complete homework or assessments shall only be allowed to the extent stated by the teacher for the individual assignment or entirety of the course. The use of AI systems when allowed shall not violate computer use, copyright, plagiarism and intellectual property policies of the district when properly cited.

As always, students are expected to cite original sources for quotations, facts, information, statistics, dates, or the paraphrased statements of others. An AI system should be cited when its generated content is quoted, paraphrased or otherwise used in a student's work. The lack of such citations shall imply the assignment or assessment is entirely the work of the student, free of any AI system's writing, organization, direction, or modification of the student's work.

Student Privacy and Data Protection:

Prior informed consent from parents/guardians should be obtained before allowing student use of AI systems. The district will prevent or strongly discourage any collecting, storing, or analyzing of student data using AI platforms. Measures should be in place to prevent students from using AI to cheat on homework or assessments, including regular monitoring of student use of school computers, and planning homework and assessments to minimize the opportunity to complete them using AI systems. The administrators and staff are cautioned that the use of detection software as a means of monitoring AI use is fallible, difficult to prove, easily subject to claims of harassment, destructive of trust when false accusations are made, and unlikely to be successful with AI systems that are constantly improving.

Equity and Accessibility:

Use of AI systems shall comply with district Equal Educational Opportunity policies. AI-based instructional resources should be tailored to address individual student needs, allowing for personalized learning experiences and accommodating diverse learning styles when possible and appropriate.

Transparency and Rationale:

Students, parents/guardians, and educators should be provided with understandable information about the purpose, limitations, and potential benefits of AI technologies. Clear guidelines should be established to ensure that students are aware of the district's intended appropriate use of AI tools for homework and assessments. Consideration should be taken by the teaching staff that AI availability on district networks for

its use as a business tool does not facilitate the misuse of AI in completing homework or compromising academic integrity.

Educator Training and Professional Development:

Educators should receive comprehensive training and ongoing professional development opportunities to understand the benefits and limitations of AI technologies, enabling them to both effectively incorporate and appropriately limit AI in their teaching practices. Educators should be equipped with the knowledge and skills necessary to evaluate and monitor student inputs to AI systems, AI responses to those inputs, and ensuring they are both appropriate.

Ongoing Evaluation and Accountability:

Administrators, network supervisors, and teaching staff will establish processes for ongoing evaluation and monitoring of AI technologies used within the school district, including periodic assessments of their impact on student learning. Procedures for reporting concerns, incidents, or breaches related to AI use should be established, ensuring accountability and addressing issues promptly.

Community Engagement and Communication:

The school board will engage with the community, including students, parents/guardians, educators, and relevant stakeholders, to foster understanding, gather comments, and address concerns related to the use of AI in education. Clear and regular communication channels including the district's website should be established to inform the community about the educational purpose, use, and benefits of AI technologies in the school district, along with measures taken to prevent inappropriate use of AI systems.

Implementation:

Administrators will provide procedures and professional development resources to assist with instructional changes that use the best features of AI while reducing the misuse of AI in completing homework and assessments. These procedures will emphasize the use of AI to enhance student education and address the ways traditional homework might be reshaped or redirected by AI's skillful use. Regular reviews will be conducted to ensure this policy's effectiveness, alignment with emerging best practices, and adaptations to address evolving challenges in AI usage.

Cross Reference: 102 Educational Philosophy of the District

501 Objectives for Equal Educational Opportunities for Students

606.06 Acceptable Use of Computers, Tech. and the Internet

606.08 Reproduction of Copyrighted Materials

Approved _____ Reviewed _____ Revised _____

604.02 - SUMMER SCHOOL INSTRUCTION

The board, in its discretion, may offer summer school for one or more courses and student activities for students who need additional help and instruction or for enrichment in those areas. This decision shall be within the discretion of the board.

Upon receiving a request for summer school, the board shall weigh the benefit to the students and the school district as well as the school district's budget and availability of certificated employees to conduct summer school.

It shall be the responsibility of the superintendent to develop administrative regulations regarding this policy.

Cross Reference: 411.02 Summer School Certificated Employees

604 Instructional Curriculum

801.07 Summer School Program Transportation Service

Approved _____ Reviewed _____ Revised _____

604.06 - PHYSICAL EDUCATION

Students in grades one through eight shall be required to participate in physical education courses unless they are excused by the principal of their attendance center.

Students in grades nine through twelve are required to participate in one year or 10 instructional units of physical education. Participation in health education courses may apply toward this requirement.

Students may be excused from physical education courses if the student presents a written statement from a doctor stating that such activities could be injurious to the health of the student or the student has been exempted because of a conflict with the student's religious beliefs.

Students who will not participate in physical education must have a written request or statement from their parents.

Cross Reference: 506 Student Activities

Approved _____ Reviewed _____ Revised _____

604.07 - CAREER EDUCATION

Preparing students for careers is one goal of the education program. Career education will be written into the education program for grades kindergarten through twelve. This education shall include, but not be limited to, awareness of self in relation to others and the needs of society, exploration of employment opportunities, experiences in personal decision-making, and experiences of integrating work values and work skills into their lives.

It shall be the responsibility of the superintendent to assist certificated employees in finding ways to provide career education in the education program. Special attention should be given to offering courses of vocational education. The board, in its review of the curriculum, shall review the means in which career education is combined with other instructional programs.

Approved _____ Reviewed _____ Revised _____

604.08 - DRIVER EDUCATION

If a traffic safety education program is provided by the district, the program will be made available to all eligible resident students. The district will charge a tuition rate as established by the board.

Eligible nonresident students may enroll in the district´s traffic safety education program if resources are available. Nonresident students may be charged tuition at a higher rate than resident students.

The district will develop procedures for establishing tuition rates and enrolling nonresident students.

Approved _____ Reviewed _____ Revised _____

604.13 - PROMOTING STUDENT RESILIENCE

The District will develop methods to create positive student experiences that:

1. show students they belong as valued members of their class and school such as through cooperative projects, positive attitudes and emotions, helping others and participating in group activities;

2. reinforce student feelings that they are useful to their classmates and valued by adults by developing positive social relationships, monitoring and controlling one´s own behavior, and communicating with parents and teachers to understand difficulties and reinforce appropriate behaviors;

3. teach the students techniques for reinforcing their efforts to improve on their own success such as showing persistence, trying different methods to master academic skills, discussing why a failure has occurred, considering how to build on their existing strengths; and

4. provide the students with support of, and evidence for, academic competence such as completion of tasks on time, pre- and post-learning tests, and visual evidence of development of academic skills.

These experiences are intended to lessen the feelings of failure, alienation, uselessness and powerlessness created by adversity and teach methods to create better future outcomes. Teachers will support students in making appropriately assertive efforts to identify reasons for lack of success and address negative emotions undermining those efforts.

The District will create supportive parental relationships by fostering positive teacher/parent communications on a frequent basis through proactive discussions of student progress, assignments, class plans, curriculum focus and student challenges.

The District may consider creating multiyear relationships between individual teachers and groups of students to better follow student growth and progress over an extended time.

The District will monitor related indicators over a period of years including numbers of suspensions, attendance, graduation rates, GPA and standard assessment scores as evidence of successful implementation of this policy. The district will create a baseline of data to assess classroom climate and assist in implementing resilience-building strategies.

The Superintendent, in consultation with the administrative team, will implement this policy.

Approved _____ Reviewed _____ Revised _____

604.14 - READING INSTRUCTION AND IMPROVEMENT

The district will facilitate reading instruction and intervention services to address student reading needs, including, but not limited to, dyslexia, and ensure all teachers for kindergarten through grade three will be effective reading teachers as evidenced by (a) evaluations based on classroom observations and student improvement on reading assessments or (b) specialized training in reading improvement. Each student and his or her parents or guardians will be informed of the student's reading progress; and it is the district´s intent that each student be able to read at or above grade level by third grade.

For school year 2019-20 and each following school year, the district shall administer an approved reading assessment three times during the school year to all students in kindergarten through grade three, except for any student receiving specialized instruction for limited English proficiency who has been receiving such instruction for less than two years, any student receiving special education services for whom such assessment would conflict with the individualized education plan, and any student receiving services under a plan according to the requirements of section 504 of the federal Rehabilitation Act of 1973 or Title II of the Americans with Disabilities Act for whom such assessment would conflict with that section 504 or Title II plan. The first administration of such assessment for each such school year shall occur within the first thirty days of the school year.

Any student in kindergarten, grade one, grade two, or grade three shall be identified as having a reading deficiency if the student performs below the threshold level determined according to the Reading Improvement Act on an approved reading assessment. A student who is identified as having a reading deficiency shall remain identified as having a reading deficiency until the student performs at or above the threshold level on an approved reading assessment. Nothing in the Nebraska Reading Improvement Act shall prohibit a school district from identifying any other student as having a reading deficiency.

The district shall provide a supplemental reading intervention program for the purpose of ensuring that students can read at or above grade level at the end of third grade. The district may work with a reading specialist at the State Department of Education, with educational service units, with learning communities, or through interlocal agreements to develop and provide such supplemental reading intervention programs. Each supplemental reading intervention program shall:

a. Be provided to any student identified as having a reading deficiency;

b. Be implemented during regular school hours in addition to regularly scheduled reading instruction unless otherwise agreed to by a parent or guardian; and

c. Make available a summer reading program each summer for any student who has been enrolled in grade one or higher and is identified as continuing to have a reading deficiency at the conclusion of the school year preceding such summer reading

program. Such summer reading program may be held in conjunction with existing summer programs in the school district or in a community reading program not affiliated with the school district or may be offered online.

The supplemental reading intervention program may also include:

a. Reading intervention techniques that are based on scientific research

b. and best practices;

c. Diagnostic assessments to frequently monitor student progress throughout the school year and adjust instruction accordingly;

d. Intensive intervention using strategies selected from the following list to match the weaknesses identified in the diagnostic assessment:

i. Development in phonemic awareness, phonics, fluency, vocabulary, and reading comprehension;

ii. Explicit and systematic instruction with detailed explanations, extensive opportunities for guided practice, and opportunities for error corrections and feedback; or

iii. Daily targeted individual or small-group reading intervention based on student needs as determined by diagnostic assessment data subject to planned extracurricular school activities;

e. Strategies and resources to assist with reading skills at home, including parent-training workshops and suggestions for parent-guided home reading; or

f. Access to before-school or after-school supplemental reading intervention with a teacher or tutor who has specialized training in reading intervention.

The school of any student who is identified as having a reading deficiency shall notify such student's parents or guardians either in writing or by electronic communication no later than fifteen working days after the identification of the reading deficiency that the student has been identified as having a reading deficiency and that an individual reading improvement plan will be established and shared with the parents or guardians.

Any student who is identified as having a reading deficiency shall receive an individual reading improvement plan no later than thirty days after the identification of such reading deficiency. The reading improvement plan may be created by the teacher, the principal, other appropriate school personnel, and the parents or guardians of the student and shall describe the reading intervention services the student will receive through the supplemental reading intervention program as described above to remedy such reading deficiency. Each such student shall receive reading intervention services through the supplemental reading intervention program as described above until the student is no longer identified as having a reading deficiency.

Approved _____ Reviewed _____ Revised _____

604.15 - **INFORMATION RELATING TO DYSLEXIA**

The Superintendent in collaboration with the District's Director of Special Education shall be responsible for ensuring the district collects and records information relating to dyslexia including the number of students who:

1. Tested for a specific learning disability in the area of reading, including tests that identify characteristics of dyslexia and the results of such tests;
2. Identified as having a reading issue, including dyslexia, in accordance with the assessment administered under the Nebraska Reading Improvement Act as required by Policy 604.14;
3. Identified as described in item 2 above who have shown growth on the measure used to identify those reading issues.

By July 1 of each year the district shall provide the required information to the Nebraska State Department of Education in addition to other dyslexia and reading related data as requested.

Approved _____ Reviewed _____ Revised _____

605.02 - ALTERNATIVE EDUCATION PROGRAM

The Superintendent may offer an expelled student an alternative school, class, or educational program; or an alternative education plan in accordance with state statutes and Rule 17. An expelled student may not be required to attend the alternative program. The Superintendent is responsible to arrange and plan for a student's alternative educational program, based on the available resources and student's individual circumstances.

The plan shall (a) specify guidelines and consequences for behaviors which have been identified as preventing the student from achieving the desired benefits from the educational opportunities provided, (b) identify educational objectives that must be achieved in order to receive credits toward graduation, (c) specify the financial resources and community programs available to meet both the educational and behavioral objectives identified, and (d) require the student to attend monthly reviews in order to assess the student's progress toward meeting the specified goals and objectives.

If a district decides not to provide an alternative school, class or educational program for expelled students, or if the expelled student decides not to participate in the alternative offered, the district shall follow the procedures below:

1. A conference shall be called by a school administrator and held to assist the district in the development of a plan with the participation of a parent or a legal guardian, the student, a school representative, and a representative of either a community organization with a mission of assisting young people or a representative of an agency involved with juvenile justice.
2. The plan shall be in writing and adopted by a school administrator and presented to the student and the parent or legal guardian.
3. The plan shall:

   a. Specify guidelines and consequences for behaviors which have been identified as preventing the student from achieving the desired benefits from the educational opportunities provided,

   b. Identify educational objectives that must be achieved in order to receive credits toward graduation,

   c. Specify the financial resources of the community programs available to meet both the educational and behavioral objects identified, and

   d. Require the student to attend monthly reviews in order to assess the student's progress toward meeting the specified goals and objectives.

Legal Reference: NDE Rule 17

Approved _____ Reviewed _____ Revised _____

605.06 - ENGLISH AS A SECOND LANGUAGE

The School Board recognizes the need to provide equal educational opportunities for all students in the district. Therefore, if the inability to speak and understand the English language due to national origin or non-English speaking environments excludes a student from effective participation in the educational programs offered by the district, the district shall take appropriate action to rectify the English language deficiency in order to provide the student equal access to its programs. The board directs the administration to develop and implement procedures which:

• Appropriately identify and evaluate students with limited English proficiency (LEP). Limited English proficient students are those whose native/home language is a language other than English and whose English language skills of listening, speaking, reading and writing are not developed to a level at which they can achieve challenging performance standards in a regular classroom.

• Determine the appropriate instructional environment for LEP students.

• Monitor progress of students receiving English as a Second Language (ESL) or bilingual instruction in order to determine their readiness for the mainstream classroom environment.

• Establish professional standards for staff members who teach bilingual or English as a Second Language programs and provide development opportunities for staff members when needed.

Where feasible, the district may provide support for the student's use of the native language while developing English language skills.

Legal Reference: Title VI, Civil Rights Act of 1964.

20 U.S.C. §§ 1701 et seq.

Cross Reference: 103 Equal Educational Opportunity

601 Goals and Objectives

Approved _____ Reviewed _____ Revised _____

606.04 - TECHNOLOGY AND INSTRUCTIONAL MATERIALS

The board supports the use of innovative methods and the use of technology in the delivery of the education program. The board encourages employees to investigate economic ways to utilize instructional television, audiovisual materials, computers, and other technological advances as a part of the curriculum.

It shall be the responsibility of the superintendent to develop a plan for the use of technology in the curriculum and to evaluate it annually. The superintendent shall report the results of the evaluation and make a recommendation to the board annually regarding the use of technology in the curriculum.

Cross Reference: 603 Curriculum Development

Approved _____ Reviewed _____ Revised _____

606.07 - DISTRICT WEB SITE

The board supports and encourages the publication of a district web site to improve community relations, to foster creativity and to demonstrate student learning. It is a means of providing information to the community about school events and classroom activities, and provides an effective line of communication between the community, staff and students.

The superintendent is directed to develop written web site regulations that pursue the benefits of maintaining a web site while protecting the school and community from its potential misuse. The superintendent will designate a staff member (herein called the Computer Coordinator) to implement the web site regulations and to review all materials published on the web site. All web pages on the web site will conform to this policy and the corresponding regulations.

Staff Web Pages

Staff may create web pages to use in class activities or to provide a resource for other staff members. Staff web pages must reflect the educational goals and objectives of the district. District employees, board members or guests may not establish personal web pages using district resources.

School or Class Web Pages

Schools or classes may establish web pages that present information about the school or class activities. The Building Principal will designate an individual to be responsible for managing the school web site under the supervision of the computer coordinator. Teachers will be responsible for maintaining their class pages.

Extracurricular Organization Web Pages

Extracurricular organizations may establish web pages with the approval of the organization sponsor and the computer coordinator. Material presented on the organization web page must relate specifically to organization activities and will include only student-produced material.

Student Web Pages

Students may establish personal web pages with staff sponsorship and approval by the computer coordinator. Material presented in the student's web pages must be related to the student's educational and career preparation activities.

Other Web Pages

The district may allow other organizations such as parent-teacher groups, booster clubs, school foundations, etc. to publish web pages providing they conform to this policy and the corresponding administrative regulations.

Written Permission

Written permission from both the parent/guardian and the student must be obtained prior to placing any student photographs, artwork, writing or other projects on the web site. No

personal contact information about the child, such as home address, phone number, or e-mail address will be given. The work will appear with a copyright notice prohibiting the copying of such work without express written permission. In the event that anyone requests such permission, those requests will be forwarded to the parent or guardian. All such work may be removed from the web site at the end of the current school year.

Legal Reference: 20 U.S.C. sec. 1232g (1988) (Family Educational Rights and Privacy Act)

47 U.S.C. 201 et seq. (Communications Decency Act of 1995)

Neb. Statute 79-2104

Cross Reference: 504 Student Rights and Responsibilities

507 Student Records

603 Curriculum Development

604 Instructional Curriculum

1006 Use of District Facilities and Equipment

Approved _____ Reviewed _____ Revised _____

606.09 - TEXTBOOK LOANS TO CHILDREN ENROLLED IN PRIVATE SCHOOLS

The superintendent of schools with the cooperation of the school district's principals will administer the textbook loans to resident children enrolled in private schools in Nebraska.

The district of will annually generate a list of textbooks designated for use in the schools. This will be done by December l of each year. The list of textbooks will be available in the superintendent's office. Copies of the textbook list will be made available to the public at the actual cost of duplicating the list in whole or in part.

The last day for receiving applications for textbook loans from parents or legal guardians residing within the school district for use during the following school year is January 15 of each year, A limit of 10 textbooks per student in grades K-6 and 8 textbooks per student in grades 7-12 has been established by NDE.

The district will make available to all eligible parties textbooks valued at no more than the total dollars allocated to the district by the State Department of Education. If the parental request exceeds the allocated dollars requests for textbooks used by elementary students will be given first priority. If the parental request for textbooks from parents representing resident elementary students exceeds allocated dollars, textbooks being used in the lower elementary will be given priority.

Parental requests will be filled on an ascending K-12 grade by grade basis. The total school district outlay in dollars will never exceed the allocation that the district is eligible to receive from the State Department of Education.

Ten days prior to the beginning of the district classes, the administration will notify parents or guardians in writing where and when textbooks will be available. Parents or legal guardians receiving textbooks will be required to sign a receipt at the time the textbooks are picked up on designated Form NDE 122-002. Parents or legal guardians shall return textbooks to the designated individual within the local school district within 15 days after the close of the school year. All textbooks are to be returned in reasonably good condition. Lost or damaged books will require that the parent or legal guardian reimburse the district for replacement costs.

It is important to understand that a textbook shall be defined to mean a "book which is designated for use in the classroom as the principal source of study in kindergarten through grade 12 in a public school district." Library books, workbooks, etc. are not eligible material for the definition of "textbook."

Legal Reference: Neb. Statute 79-734

NDE Rule 4

Approved _____ Reviewed _____ Revised _____

607.03 - ANIMALS IN THE CLASSROOM

Live animals will not be allowed in school district facilities except under special circumstances and only for an educational purpose. Permission from the principal will be required of anyone wishing to bring an animal into school district facilities. Appropriate supervision of animals is required when animals are brought into the school district facilities.

The person bringing the animal must furnish transportation for the animal brought to school. Animals will not be allowed to travel to and from the student's attendance center on the school bus without prior approval from the principal.

It shall be the responsibility of the principal to determine appropriate supervision of animals in the classroom.

The above guidelines do not apply to those accompanied by an animal specifically trained to accommodate a physical handicap, such as a Seeing-Eye dog. Arrangements for accommodating such animals shall be determined in advance by the building principal in consultation with the student´s parent or guardian.

Cross Reference: 508 Student Health and Well-Being

Approved _____ Reviewed _____ Revised _____

607.07 - PLANNING AND RECORD-KEEPING BY TEACHERS

Quality lesson planning is necessary to help ensure the teacher that key elements of an effective lesson are presented. Lesson plans aid the principal, supervisor and substitute teachers in understanding the regular classroom teacher's plan for teaching the course of study as adopted by the School Board. Lesson plans should also be prepared by teachers whose assignment may vary from regular classroom work in order that their scheduled activities may be observed with understanding or replicated by a substitute teacher. Generally, teachers will prepare lesson plans on a weekly basis although they are expected to have general plans which cover the length of the course. Plans will be kept by the classroom teacher in a place known to and accessible to the building administrators. The principal may further require teachers to provide copies of lesson plans to the school office at reasonable times and intervals as determined by the principal.

The lesson plan should be of sufficient length and substance to allow a substitute teacher to carry on the course of study and to provide a means by which principals and supervisors may monitor instruction to assure that the educational program in a particular class or activity is related to the district-approved course of study.

Although the district will provide lesson plan books, principals may request another system or format for the presentation of lesson plans provided it meets the purpose of planning. Principals may also require more detail or specific plans to assist individual teachers, or they may minimize the use of lesson plans when such action will not compromise the stated purpose of lesson planning.

It is recognized that provision for flexibility is essential within the lesson plan to allow for unexpected changes and varying learning rates.

Approved _____ Reviewed _____ Revised _____

607.08 - SCHOOL VOLUNTEERS

Citizens who voluntarily contribute their time and talents to the improvement and enrichment of the public schools´ instructional and other programs are valuable assets. The board encourages constructive participation of groups and individuals in the school to perform appropriate tasks during and after school hours under the direction and supervision of professional personnel.

Any regularly scheduled volunteer will submit to a background check.

The administration is responsible for the recruitment, use, coordination and training of volunteers. These assignments will be carried out as directed or delegated by the superintendent. Every effort should be made to use volunteer resources in a manner which will ensure maximum contribution to the welfare and educational growth of students.

Approved _____ Reviewed _____ Revised _____

607.09 - SERVICE ANIMALS AND THERAPY DOGS

The Board recognizes that service animals may be used to provide assistance to some persons with disabilities. This policy governs the presence of service animals in the schools, on school property, including school buses, and at school activities.

A service animal is a dog that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability. Other species of animals are not service animals for the purposes of this definition, though miniature horses are entitled to similar treatment in certain circumstances.

The service animal must perform tasks or do work for the individual with a disability. The work or tasks performed by a service animal must be directly related to the individual´s disability, such as:

- Assisting individuals who are blind or have low vision with navigation and other tasks,
- Alerting individuals who are deaf or hard of hearing to the presence of people or sounds,
- Providing non-violent protection or rescue work,
- Pulling a wheelchair,
- Assisting an individual during a seizure,
- Alerting individuals to the presence of allergens,
- Retrieving items such as medicine or the telephone,
- Providing physical support and assistance with balance and stability to individuals with mobility disabilities, and
- Helping persons with psychiatric and neurological disabilities by preventing or interrupting impulsive or destructive behaviors.

Excluded from the lists of acceptable tasks or work performed by a service animal are:

- The crime deterrent effects of an animal´s presence, or
- The provision of emotional support, well-being, comfort, or companionship.

When determining whether an animal qualifies as a service animal, school officials may ask the individual with a disability only two questions:

1. Whether the animal is required because of a disability; and
2. What task or work the animal has been trained to do.

These questions may not be asked if it is readily apparent that the individual has a disability or that the animal is trained to do work or perform tasks for the individual with a disability. School

officials may not ask about the nature or extent of a person´s disability, nor can a request be made to produce a certificate establishing the dog´s qualification as a service animal.

The service animal must remain well-behaved and under control at all times at school. The service animal must have a harness, leash or other tether unless it cannot be used by the person in control because of a disability or if it would interfere with the service animal´s performance. In either case, the animal must still be under control by way of voice controls, signals or other means.

Individuals with disabilities are permitted to be accompanied by a service animal in all areas of the district´s facilities where members of the public, participants in services, programs, or activities are normally allowed to go. If the service animal has a separate handler, that individual shall also be allowed access to facilities. At events for which an attendance fee is charged, there shall be no additional fee for the service animal.

The district may remove or exclude a service animal from district facilities if:

1. The animal is out of control and the animal´s handler does not take effective action to control it;

2. The animal is not housebroken;

3. The presence of the animal poses a direct threat to the health or safety of others; or

4. The presence of an animal would require a fundamental alteration to the service, program or activity of the district.

In the case of removal of a service animal from the premises, the individual with a disability shall still be provided with the opportunity to participate in the service, program, or activity without the service animal.

The person in control of the service animal, and not the school district, is responsible for caring for the dog´s needs. This includes any feeding, exercising, and clean up. The district may charge for any property damage caused by the service animal provided the district normally charges individuals for damage they cause.

Therapy Dogs

A therapy dog is one that is used to provide emotional support, well-being, comfort, or companionship to students. Such dogs are generally not intended for the personal use of district students or employees and will only be approved at the discretion of district administration and counselors for their intended purpose. Prior to the consideration of the use of a therapy dog by an individual student, administration and counselors shall consult with the student´s parent/guardian and the student´s health care provider.

In the case of considering the routine use of a therapy dog by an individual student, the limitations stated above for service animals will also apply to therapy dogs. In addition the school will require that the therapy dog´s owner must provide to the district a proof of vaccinations received by the therapy dog as determined by and signed by a veterinarian, for the district´s files. These records shall be maintained in the district´s files. The therapy dog must be spayed or neutered. The therapy dog must show no aggression toward people or other animals and must not bark or make other distracting noises while in school. The therapy dog may not interfere with the educational process of any student.

The district may also require that the therapy dog has been obedience tested and certified as Canine Good Citizens by the American Kennel Club ("AKC") and certified for temperament as a therapy dog with a specific handler by the AKC and supply supporting documentation of such certification satisfactory to the superintendent at the owner's expense. The district shall maintain copies of current certifications in its files.

Legal Reference ADA of 1990, 28 CFR Part 35

ADA of 1990, 42 USC Sec. 12101 et seq.

Section 504 of the Rehabilitation Act, 29 USC Sec. 794

Approved _____ Reviewed _____ Revised _____

608.01 - STUDENT GUIDANCE AND COUNSELING PROGRAM

The board shall provide a student guidance and counseling program. The guidance counselor shall be certified with the Nebraska Department of Education in guidance and counseling and hold any additional qualifications required by the board. The guidance and counseling program will serve grades K - 12. The program will assist students with their personal, educational, social and career development. It will provide assistance to students in academic planning and placement. The program shall be coordinated with the education program and involve certificated employees.

Cross Reference: 507 Student Records

604 Instructional Curriculum

605 Alternative Programs

Approved _____ Reviewed _____ Revised _____

608.02 - STUDENT HEALTH SERVICES

Health services shall be coordinated with the health education and physical education curriculum. The program shall be designed to help each student protect, improve and maintain physical, emotional and social well-being. Areas to be considered include, but are not limited to:

- Environmental health and safety;
- Emergency health procedures and responsibilities;
- Health promotion;
- Communicable disease prevention and control;
- Staffing for the school health program;
- Administering of prescription medication;
- Acute or chronic health problems;
- Health assessment and screening;
- Record keeping; and
- Program evaluation.

Nurses and other medical employees employed by or requested to conduct services for the board shall hold and maintain a current Nebraska license and meet the requirements of the Nebraska Department of Education if required by the school district. In addition to the health services provided in the curriculum, the school district will provide the following district-wide health services:

- Annual vision screening tests;
- Annual audiometer screening tests;
- Annual spinal screening;
- Annual height and weight measurement; and
- Monitor student records for evidence of immunization as required by state statute.

The services listed above will be provided in conjunction with state public health officials and local hospitals.

The superintendent shall provide a written report on the role of health services in the education program to the board annually.

Cross Reference: 502.03 Entrance - Admissions

Approved _____ Reviewed _____ Revised _____

609.01 - EVALUATION OF INSTRUCTIONAL PROGRAMS

The board supports building level school improvement processes and projects for the purpose of attaining higher educational achievement levels for the district's students. An important part of school improvement is the on-going evaluation of the curriculum and instructional program of the district. Programs will be evaluated with respect to both their effectiveness and efficiency as means of delivering student education.

The superintendent shall develop guidelines by which the instructional staff will evaluate the instructional program on a periodic basis.

Legal Reference: NDE Rule 10.004.07A

Approved _____ Reviewed _____ Revised _____

611.06 - CLASS RANKINGS AND GRADE POINT AVERAGE

The official grade point average (GPA) of graduating students is based on a minimum of 8 semesters of studies in order to allow students sufficient opportunity for demonstrating achievement. Temporary GPA's will be sent to colleges and universities who request information for admission.

The official GPA will be furnished to post-secondary institutions upon request.

Students approved and who complete early graduation requirements will receive their official GPA based upon seven (7) completed semesters.

The district will name a Valedictorian based solely upon class rank. The Valedictorian shall be the student earning the highest GPA and having a minimum of 4 semesters of enrollment in the district]. The Salutatorian shall be the student with the second highest class rank in the same criteria.

Legal Reference: Neb. Statute 79-526

Cross Reference: 507 Student Records

Approved _____ Reviewed _____ Revised _____

611.08 - EARLY GRADUATION

A student who wishes to graduate from high school in less time than the ordinary eight (8) semester, grade 9-12 sequence, may request permission to complete graduation requirements on an alternate schedule.

The student and parents/guardians will consult with high school guidance personnel to develop a graduation plan. The student's intention to accomplish this shall be stated in writing to the principal. The student's parent or legal guardian must submit a letter in support of the student's request for early graduation, and such letter is to accompany the student's written request. The request letters to the principal are to be submitted no later than six months prior to the anticipated completion of the required high school program.

A student who graduates early must complete all graduation requirements established by the board. The student who chooses early graduation will be allowed to participate in the spring graduation ceremonies. In all other school activities the early-out graduate will be treated as a graduated student.

Approved _____ Reviewed _____ Revised _____

611.09 - COMMENCEMENT

Students who have met the requirements for graduation will be allowed to participate in the commencement proceedings provided they abide by the proceedings organized by the school district. It shall be the responsibility of the principal to solicit input from each graduating class regarding the proceedings for their commencement.

Failure of a student to participate in commencement will not be a reason for withholding the student's final progress report or diploma certifying the student's completion of high school.

Approved _____ Reviewed _____ Revised _____

612.08 - LEAST RESTRICTIVE ENVIRONMENT

To the maximum extent appropriate, children with disabilities through the age of twenty-one, including children in public and nonpublic institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular education environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

Individual Education Plans (IEPs) will be developed by teams, which will include all roles identified with Federal and state rules, within 30 days from the initial eligibility decision and at least annually, consistent with state and Federal rules and regulations The district will use the state-provided model forms to make sure all required components are considered and included. While a draft may be developed before an IEP meeting, the draft will not be considered as the final version and shall be reviewed and revised based on the team, including the parent, input and consensus. If a parent requests an alternate means of attendance, the team will offer attendance via phone or virtual conferences Procedures for such options will be developed to ensure confidentiality and to obtain proper signatures.

NDE documents "Rule 51, Special Education Program" and "Policies and Procedures Guidance Documents" shall serve as administrative procedures to this policy. The entire documents can be found at https://www.education.ne.gov/sped/regulationspolicies.

Approved _____ Reviewed _____ Revised _____

612.15 - ACCESS TO INSTRUCTIONAL MATERIALS

A school district that chooses to coordinate with the National Instructional Materials Access Center (NIMAC) when purchasing print instructional materials shall enter into a written contract with the publisher of the print instructional materials to:

1. Require the publisher to prepare and, on or before the delivery of the print instructional materials, provide to the National Instructional Materials Access Center, electronic files containing the contents of the print instructional materials using the Instructional Materials Accessibility Standard (NIMAS); or

2. Purchase instructional materials from a publisher that are produced in or may be rendered in specialized formats.

Nothing in this policy shall be construed to require a school district to coordinate with the National Instructional Materials Access Center. If a school district chooses not to coordinate with the National Instructional Materials Access Center, the school district shall provide an assurance to the Nebraska Department of Education that the school district will provide instructional materials to students with blindness or other students with print disabilities at the same time as other students.

NDE documents "Rule 51, Special Education Program" and "Policies and Procedures Guidance Documents" shall serve as administrative procedures to this policy. The entire documents can be found at https://www.education.ne.gov/sped/regulationspolicies.

Approved _____ Reviewed _____ Revised _____

612.16 - OVER-IDENTIFICATION AND DISPROPORTIONALITY

The district has a goal of preventing the inappropriate over-identification or disproportionate representation by race and ethnicity of children as children with disabilities, including children with disabilities with a particular impairment as described in 92 NAC 51-003.10.

"Child with a disability" means a child who has been verified as per 92 NAC 51-006 as a child with autism, a behavior disorder, deaf-blindness, a developmental delay, a hearing impairment including deafness, a mental handicap, multiple impairment, an orthopedic impairment, an other health impairment, a specific learning disability, a speech-language impairment, a traumatic brain injury or a visual impairment including blindness, who because of this impairment needs special education and related services. If, under 92 NAC 51-003.63, it is determined, through an appropriate evaluation under 92 NAC 51-006, that a child has one of the disabilities identified above, but only needs a related service and not special education, the child is not a child with a disability under this Chapter. If the related service required by the child is considered special education rather than a related service, the child would be determined to be a child with a disability.

School districts must ensure no single measure or assessment is used as the sole criterion for determining whether a child is a child with a disability and for determining an appropriate educational program for the child.

School districts must ensure assessments and other evaluation materials used to assess a child are selected and administered so as not to be discriminatory on a racial or cultural basis, and are provided and administered in the child's native language or other mode of communication and in the form most likely to yield accurate information on what the child knows and can do academically, developmentally and functionally, unless it is clearly not feasible to so provide or administer. The district's special education provisions will be equally available to all children.

NDE documents "Rule 51, Special Education Program" and "Policies and Procedures Guidance Documents" shall serve as administrative procedures to this policy. The entire documents can be found at https://www.education.ne.gov/sped/regulationspolicies.

Approved _____ Reviewed _____ Revised _____

612.17 - PROHIBITION ON MANDATORY MEDICATION

School districts are prohibited from requiring parents to obtain a prescription for substances identified under Schedules I, II, III, IV or V in section 202(c) of the Controlled Substances Act (21 U.S.C. 812(c)) for the child as a condition of attending school, receiving an evaluation under 92 NAC 51-006, or receiving services under Chapter 51.

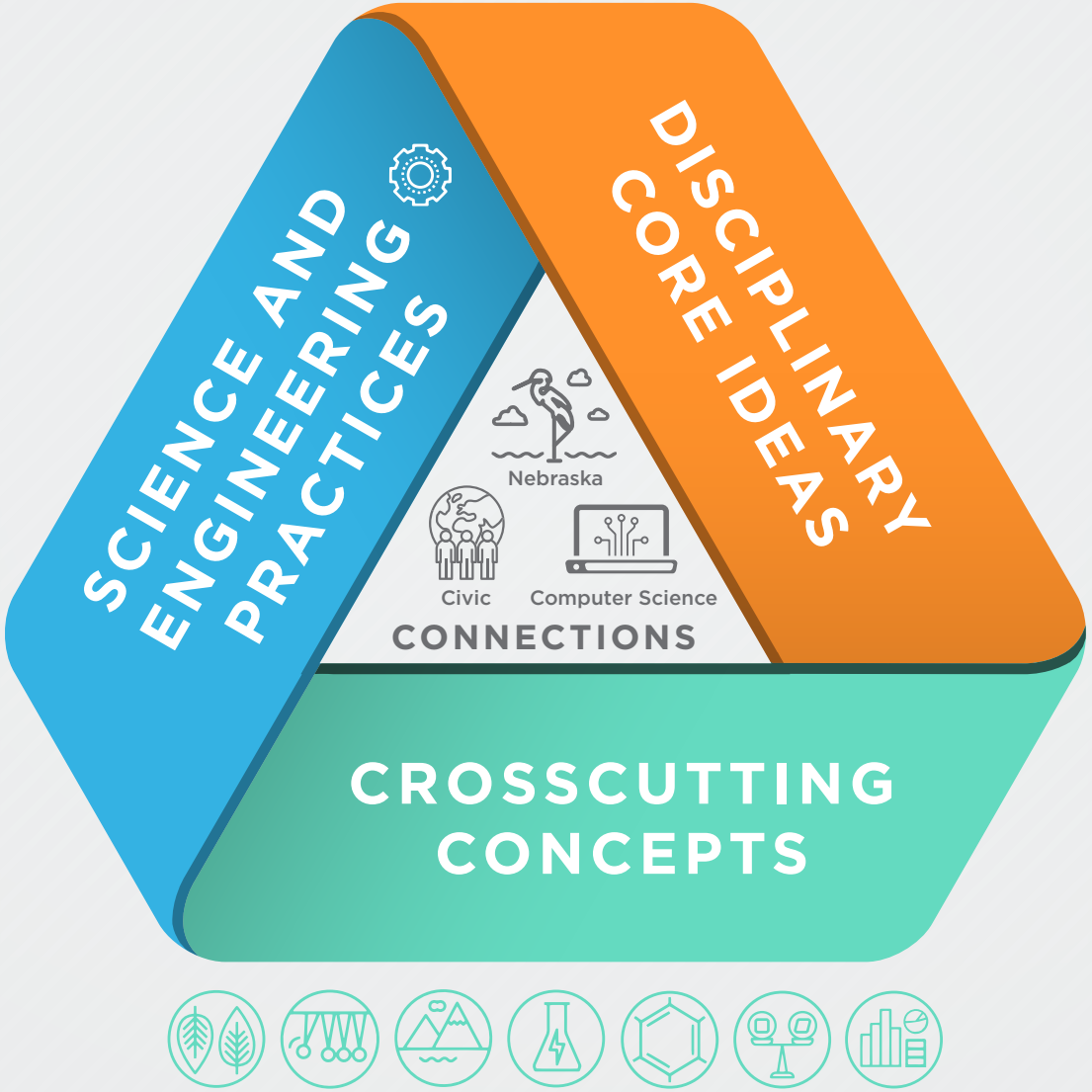
Nothing in this policy shall be construed to create a prohibition against teachers and other school personnel consulting or sharing classroom-based observations with parents or guardians regarding a student's academic and functional performance, or behavior in the classroom or school, or regarding the need for evaluation for special education or related services.

NDE documents "Rule 51, Special Education Program" and "Policies and Procedures Guidance Documents" shall serve as administrative procedures to this policy. The entire documents can be found at https://www.education.ne.gov/sped/regulationspolicies.

Approved _____ Reviewed _____ Revised _____

NEBRASKA'S COLLEGE AND CAREER READY

STANDARDS FOR SCIENCE



NEBRASKA DEPARTMENT OF EDUCATION

NEBRASKA'S COLLEGE AND CAREER READY STANDARDS FOR SCIENCE 2024

Table of Contents

Content Area Standards Structure....3
Content Area Standards Overview....4
Organization and Structure of College and Career Ready Standards for Science (CCR-Science)....4
Educator Support & Resources....7
Kindergarten....10
Grade 1....12
Grade 2....14
Grade 3....16
Grade 4....19
Grade 5....22
Grade 6....24
Grade 7....27
Grade 8....30
HS Physical Sciences....33
HS Life Sciences....37
HS Earth and Space Sciences....40
Plus Standards (Optional)....43
- Physical....43
- Chemistry....46
- Biology....48
- Anatomy and Physiology....51

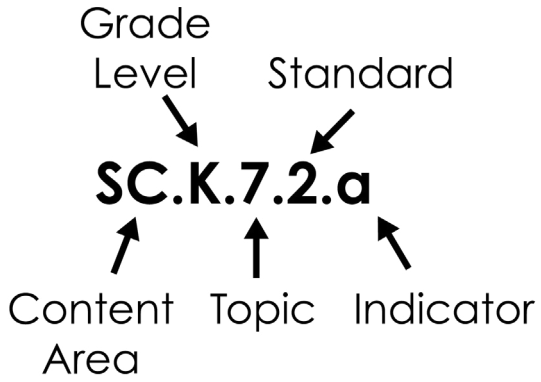
Appendix A: Topic Progression....54
Appendix B: HS Integrated Science Course Model....55

CONTENT AREA STANDARDS STRUCTURE

The overall structure of Nebraska's College and Career Ready Standards for Science (CCR-Science) reflects the two-tier structure common across all Nebraska content area standards. The two levels within the structure include **standards** and **indicators**. The standards are broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of student learning. The standards, across all grade levels, reflect long-term goals for learning. **Indicators** further describe what students must know and be able to do to meet the standard. These performance-based statements provide clear expectations related to student learning in each content area. Additionally, indicators provide guidance related to the assessment of student learning. This guidance is articulated by including ***assessment boundary*** statements.

The CCR-Science standards describe the knowledge and skills that students should learn, but they do not prescribe particular curriculum, lessons, teaching techniques, or activities. Standards describe what students are expected to know and be able to do, while the local curriculum describes how teachers will help students master the standards. A wide variety of instructional resources may be used to meet the state content area standards. Decisions about curriculum and instruction are made locally by individual school districts and classroom teachers. The Nebraska Department of Education provides guidance related to high-quality instructional materials selection and implementation. Please visit the Nebraska Instructional Materials Collaborative.

In addition to a common structure for content area standards, a consistent numbering system is used for content area standards. The numbering system is as follows:



CONTENT AREA STANDARDS OVERVIEW

Nebraska Revised Statute 79-760.01 requires the State Board of Education to adopt measurable academic content standards for the areas of reading, writing, mathematics, science, and social studies. Standards describe grade-level expectations for given content areas and provide a framework upon which Nebraska districts develop, establish, and implement curriculum. For effective teaching and learning to occur, the content area standards should drive local decisions related to instructional materials, resources, and interim, formative, and summative assessments.

The Nebraska Department of Education has identified quality criteria in the development of content area standards. These criteria ensure that standards are grounded in a strong research base of human cognition, motivation, and teaching and learning and describe essential knowledge and skills for college, career, and civic readiness. The revised science standards, written by teams of Nebraska educators and reviewed by local and national experts, were developed with the following indicators of quality:

Measurable: Standards provide benchmarks against which student progress toward learning goals can be measured.

Appropriately challenging: Standards must build in complexity so that by the end of grade 12, students are prepared for postsecondary education and the workforce.

Connected: Student learning is most effective when it connects knowledge and skills to related topics and authentic applications.

Clearly worded: Content area standards must effectively communicate what students should know and be able to do.

Scaffolded: Indicators in the Nebraska content area standards scaffold student learning by sequencing connected knowledge and skills across grades so that students build and deepen understanding and ability over time.

Specific: Specificity assures that the language used in standards and indicators is sufficiently detailed to be accurately interpreted by educators

ORGANIZATION AND STRUCTURE OF COLLEGE AND CAREER READY STANDARDS FOR SCIENCE (CCR-SCIENCE)

Nebraska's College and Career Ready Standards for Science (CCR-Science) are organized by grade level for grades K-8 and by grade span in high school. K-5 standards are organized to reflect the developmental nature of learning for elementary students and attend to the learning progressions that build foundational understandings of science. By the time students reach middle school (Grades 6-8), they build on this foundation in order to develop more sophisticated understandings of science concepts through high school. The topic progression for the CCR-Science standards is included in Appendix A: Topic Progression.

Within each grade level/span the standards are organized around topics, and each standard addresses one topic. Each CCR-Science standard begins with the common stem: "Gather, analyze, and communicate…" This stem highlights long-term learning goals associated with rigorous science standards and provides guidance for high quality classroom instruction. To facilitate high-quality instruction, students actively gather evidence from multiple sources related to the topics. Evidence is carefully analyzed in order to describe and explain natural phenomena, and then, students communicate their understanding of the content using a variety of tools and strategies. It is important to note that while topics are introduced in a spiraled model, they are connected, and deeper understanding at subsequent

grade levels and spans requires foundational understanding of multiple topics.

The indicators reflect the three dimensions of science learning outlined in A Framework for K-12 Science Education1. Each CCR-Science indicator includes a disciplinary core idea, a crosscutting concept (underline), and a **science and engineering practice** (**bold**).

Disciplinary Core Ideas (DCI)
The disciplinary core ideas are the focused, limited set of science ideas identified in the Framework as necessary for ALL students throughout their education and beyond their K-12 school years to achieve scientific literacy. The limited number of disciplinary core ideas allows more time for students and teachers to engage in the science and engineering practices as they deeply explore science ideas. To allow students to continually build on and revise their knowledge and abilities, the disciplinary core ideas are built on developmental learning progressions (Appendix A).

Crosscutting Concepts (CCC)
The crosscutting concepts are used to organize and make sense of disciplinary core ideas. They serve as tools that bridge disciplinary boundaries and deepen understanding of science content. With grade-appropriate proficiency, students are expected to use patterns (cause and effect, scale, proportion, and quantity), systems and system models (energy and matter, structure and function) and stability and change as they gather, analyze, and communicate scientific understanding.

These crosscutting concepts provide structure for synthesizing knowledge from various fields into a coherent and scientifically-based view of the world.

Science and Engineering Practices (SEP)
The **science and engineering practices** are used by students to demonstrate understanding of the disciplinary core ideas and crosscutting concepts. Engaging in the practices of science and engineering helps students understand the wide range of approaches used to investigate natural phenomena and develop solutions to challenges. Students are expected to demonstrate grade-appropriate proficiency in asking questions and defining problems, developing and using models, planning and carrying out investigations, analyzing and interpreting data, using mathematics and computational thinking, constructing explanations and designing solutions, engaging in argument from evidence, and obtaining, evaluating, and communicating information as they gather, analyze, and communicate scientific information.

Each science indicator focuses on one crosscutting concept and one **science and engineering practice** as an example to guide assessment. Curriculum, instruction, and assessment should reflect authentic science practice and be phenomena-based. Furthermore, curriculum, instruction, and assessment should use crosscutting concepts and **science and engineering practices** that go beyond what is stated in the indicator to better reflect authentic science practice. Utilizing the range of SEPs and CCCs will support deeper learning and greater understanding of the DCIs.

The following table lists the disciplinary core ideas, crosscutting concepts, and **science and engineering practices**:

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
• Asking Questions and Defining Problems • Developing and Using Models • Planning and Carrying Out Investigations • Analyzing and Interpreting Data • Using Mathematics and Computational Thinking • Constructing Explanations and Designing Solutions • Engaging in Argument from Evidence • Obtaining, Evaluating, and Communicating Information	LS1: From Molecules to Organisms: Structures and Processes LS2: Ecosystems: Interactions, Energy, and Dynamics LS3: Heredity: Inheritance and Variation of Traits LS4: Biological Evolution: Unity & Diversity PS1: Matter and Its Interactions PS2: Motion and Stability: Forces and Interactions PS3: Energy PS4: Waves and Their Applications in Technologies for Information Transfer ESS1: Earth's Place in the Universe ESS2: Earth's Systems ESS3: Earth and Human Activity ETS1: Engineering Design	Patterns Cause and Effect Scale, Proportion, and Quantity Systems and System Models Energy and Matter Structure and Function Stability and Change

[1] *A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas.* Washington, DC: The National Academies Press, 2012.

Icon Titles & Descriptions

Nebraska Connections
Opportunities to teach science using topics directly relevant to our state (e.g. Ogallala Aquifer, agriculture, Nebraska-specific flora and fauna, Nebraska's rich geologic history, etc.) are listed throughout the CCR-Science standards as "Nebraska Connections." These connections allow educators to use local, regional, and state-specific contexts for teaching, learning, and assessment. Educators should use these as recommendations for investigation with students. Additionally, assessment developers have the opportunity to use the Nebraska contexts to develop Nebraska-specific examples or scenarios from which students would demonstrate their general understanding. This approach provides the opportunity for educators to draw upon Nebraska's natural environment and rich history and resources in engineering design and scientific research to support student learning.

Civic Science Connections
Within the CCR-Science standards, opportunities to create civic science connections have been identified. These connections are designed to highlight the importance of students engaging in the study of civic ideals, principles, and practices through participation in the act of "citizen science." Citizen science is the public involvement in inquiry and discovery of new scientific knowledge. This engagement helps students build science knowledge and skills while improving social behavior, increasing engagement, and strengthening community partnerships. Citizen science projects enlist K-12 students to collect or analyze data

for real-world research studies. Citizen science, in conjunction with the CCR-Science standards, helps bridge our K-12 students with stakeholders in the community, both locally and globally.



Computer Science Connections
Natural connections between science and computer science have been identified throughout the standards, especially in the middle level and in high school as students expand their ability to use computational thinking to develop complex models and simulations of natural and designed systems. Computers and other digital tools allow students to collect, record, organize, analyze, and communicate data as they engage in science learning.



Engineering, Technology, and Applications of Science Connections
Connections to engineering, technology, and applications of science are included at all grade levels and in all domains. They highlight the interdependence of science, engineering, and technology. Additionally, these connections drive the research and development cycle where discoveries in science lead to new technologies developed using the engineering design process. These connections call attention to the effects of scientific and technological advances on society and the environment.



Engineering Design
Performance indicators for the engineering design process are intentionally embedded in all grade levels. These indicators allow students to demonstrate their ability to define problems, develop possible solutions, and improve designs. ***These indicators should be reinforced whenever students are engaged in practicing engineering design during instruction.*** Having students engage in the engineering design process will prepare them to solve challenges both in and out of the classroom.

EDUCATOR SUPPORT & RESOURCES

Implementation
Effective science teaching, learning, and assessments should integrate disciplinary core ideas, crosscutting concepts, and **science and engineering practices**. Integration of the three dimensions will allow students to explain scientific phenomena, engage in sensemaking, design solutions to problems, and build a foundation upon which they can continue to learn and be able to apply science knowledge and skills within and outside the K-12 education arena. While each indicator incorporates the three dimensions, this alone does not drive student outcomes. Ultimately, student learning depends on how the standards are translated to instructional practices.

To support educators while they explore and implement content standards, the Nebraska Department of Education has developed the Content Area Standards Implementation Framework. The Framework is based on implementation science and includes stages from "Exploration" to "Deep Implementation," the types of work and activities associated with each stage, and roles of educators in ensuring successful implementation. The goal of the framework is to guide the alignment of standards, instruction, materials, and assessment to create a coherent system of learning.

Phenomenon-based Instruction
Three-dimensional instruction offers authentic learning experiences when students engage in describing and explaining the natural world. This involves focusing the conceptual learning on anchoring and investigative phenomena to better comprehend their observations. Students utilize evidence in the sensemaking process to build concepts in their minds. Phenomena are natural, observable events that we can explain or predict using our science knowledge (the singular form of phenomena is phenomenon).

Teachers are encouraged to adopt phenomenon-based instruction to fully engage students in three-dimensional science learning. This method can be summarized in three steps:

1. Introduce a new unit or concept with a phenomenon: Start by presenting a phenomenon that is relevant to students' lives. This engages them in asking questions about their observations and fosters a desire to learn more. Many teachers already use this approach by introducing new units or concepts with tangible examples such as pictures, videos, demonstrations, or laboratory experiences.
2. Engaging in science and engineering practices: Provide opportunities for students to gather and reason about information to explain the phenomenon. Sensemaking represents a shift in science instruction where teachers refrain from giving students direct answers. Instead, they should offer multiple opportunities for students to explore the phenomenon individually and in groups, while scaffolding their learning. This approach supports students in developing an understanding of scientific concepts and constructing their own explanations for the phenomenon.
3. Communicating understanding: Ensure students have multiple opportunities to articulate their thinking about why the phenomenon occurs. To deepen their understanding, check that student explanations progress from simple descriptions of what they observe to more complex explanations and predictions of what they think is happening with the phenomenon.

Throughout this process, teachers should not provide direct answers about the phenomenon. Instead, they should facilitate experiences that help students reach an appropriate understanding. Often, this involves engaging students in scientific arguments where they challenge each other's claims and explanations using their observations and collected evidence.

Teacher Guides

The Teacher Guides were created to provide guidance for developing effective instruction aligned to Nebraska's College and Career Ready Science Standards. They are intended to support teachers, administrators, science specialists, ESU's, instructional coaches, parents, and other stakeholders as they plan instruction and assessment at a local level.

The Teacher Guides are meant as a resource document which unwraps the indicators to support teacher's understanding of the standards. They are not meant to be used by students, and therefore they are not written in student-friendly language.

Nebraska Science Classroom Formative Task Repository

The Nebraska Science Classroom Formative Task Repository is a collection of K-12 formative tasks aligned to the indicator level of the standards. Tasks were developed by Nebraska educators and cover the breadth of the standards giving students an opportunity to provide evidence of what they can know and can do related to that standard.

Graduation Requirements

The high school life science, physical science, and Earth and space science standards are intended for **ALL** students to have learned by the end of 30 credit hours of high school science courses.

> **Rule 10**
> 003.05 Graduation Requirements. Each high school must require from grades nine through twelve at least 200 credit hours for graduation, for which at least 80 percent must be from the core curriculum. The number of credit hours given for a course may be less than the number of instructional units and may be increased up to 25 percent above the number of instructional units.

003.05A3 Science. Thirty credit hours of science with course content that includes biological, earth/space, and physical science concepts with corresponding science inquiry skills and laboratory experience.

Course examples that offer the scope and sequence to include all three domains are included in Appendix B: HS Integrated Science Course Model.

High School Plus Standards (HSP)

The High School Plus (HSP) standards represent advanced science topics designed to enhance the rigor of general science curricula or supplement additional advanced science courses. The standards were developed using postsecondary syllabi from entry level science courses for science majors (e.g. UNL LIFE 120, CHEM 109). Introducing the content to high school students will scaffold their learning providing a bridge between high school science coursework and postsecondary level coursework. If the indicator includes HSP, it is a plus standard which is supplemental.

KINDERGARTEN

The Kindergarten standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

What happens if you change how hard you push or pull an object?
Students are able to apply an understanding of the effects of different strengths or different directions of pushes and pulls on the motion of an object to analyze a design solution.

What is the weather like today and how is it different from yesterday?
Students are expected to develop understanding of patterns and variations in local weather and the purpose of weather forecasting to prepare for and respond to, severe weather.

Where do animals live and why do they live there?
Students are also expected to develop understanding of what plants and animals (including humans) need to survive and the relationship between their needs and where they live.

SC.K.1 Forces and Interactions: Pushes and Pulls

SC.K.1.1 Gather, analyze, and communicate evidence of forces and their interactions.

SC.K.1.1.a **Plan and conduct an investigation to compare** the effects of different strengths or different directions of pushes and pulls on the motion of an object. Assessment is limited to different relative strengths or different directions, but not both at the same time. Assessment does not include non-contact pushes or pulls such as those produced by magnets.

SC.K.1.1.b **Analyze data to determine if a design solution works** as intended to change the speed or direction of an object with a push or a pull. Assessment does not include friction as a mechanism for change in speed.

SC.K.7 Interdependent Relationships in Ecosystems: Animals, Plants, and Their Environment

SC.K.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.

SC.K.7.2.a **Use observations to describe** patterns of what plants and animals (including humans) need to survive.

SC.K.7.2.b **Construct an argument supported by evidence for how** plants and animals (including humans) can change the environment to meet their needs.

SC.K.7.2.c **Use a model to represent** the relationship between the needs of different plants or animals (including humans) and the places they live.

NE plants and animals

SC.K.7.2.d **Communicate solutions** that will increase the positive impact of humans on the land, water, air, and/or other living things in the local environment.

NE conservation organizations and agricultural practices

SC.K.12 Weather and Climate

SC.K.12.3 Gather, analyze, and communicate evidence of weather and climate.



SC.K.12.3.a **Use and share observations** of local weather conditions to describe patterns over time. Assessment of quantitative observations limited to whole numbers and relative measures such as warmer/cooler.



SC.K.12.3.b **Ask questions to obtain information** about the purpose of weather forecasting to prepare for, and respond to, severe weather.

emphasis on blizzards, tornadoes, drought, and floods



SC.K.12.3.c **Make observations to determine** the effect of sunlight on Earth's surface.



SC.K.12.3.d **Use tools and materials to design and build a structure** that will reduce the warming effect of sunlight on an area.



SC.K.12.3.e **Ask questions, make observations, and gather information** about a situation people want to change to **define a simple problem that can be solved** through the development of a new or improved object or tool.

GRADE 1

The grade 1 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

What happens when materials vibrate?
Students are expected to develop understanding of the relationship between sound and vibrating materials.

What happens when there is no light?
Students are expected to develop understanding of the relationship between the availability of light and the ability to see objects. The idea that light travels from place to place can be understood by students at this level through determining the effect of placing objects made with different materials in the path of a beam of light.

What are some ways plants and animals meet their needs so they can survive and grow?
Students are also expected to develop understanding of how plants and animals use their external parts to help them survive, grow, and meet their needs as well as how the behaviors of parents and offspring help offspring survive.

How are parents and their children similar and different?
The understanding is developed that young plants and animals are like, but not exactly the same as, their parents.

What objects are in the sky and how do they seem to move?
Students are able to observe, describe, and predict some patterns of the movement of objects in the sky.

SC.1.2 Waves: Light and Sound
SC.1.2.1 Gather, analyze, and communicate evidence of light and sound waves.

SC.1.2.1.a **Plan and conduct investigations** to provide evidence that vibrating materials can make sound and that sound can make materials vibrate.

SC.1.2.1.b **Make observations to construct** an evidence-based explanation that objects can be seen only when illuminated.

SC.1.2.1.c **Plan and conduct an investigation** to determine the effect of placing objects made with different materials in the path of a beam of light. Assessment does not include the speed of light.

SC.1.2.1.d **Use tools and materials to design and build** a device that uses light or sound to solve the problem of communicating over a distance. Assessment does not include technological details for how communication devices work.

SC.1.6 Structure, Function, and Information Processing
SC.1.6.2 Gather, analyze, and communicate evidence to show the relationship between structure and function in living things.

SC.1.6.2.a **Use materials to design a solution** to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow, and meet their needs.

NE plants and animals

SC.1.6.2.b **Develop a simple sketch, drawing, or physical model** to illustrate how the shape of an object helps it function as needed to solve a given problem.

SC.1.6.2.c **Read grade appropriate texts and use media to determine** patterns in a behavior of parents and offspring that help offspring survive.

NE plants and animals

SC.1.6.2.d **Make observations to construct an evidence-based account** that young plants and animals are like, but not exactly like, their parents. Assessment does not include inheritance or animals that undergo metamorphosis or hybrids.

NE plants and animals

SC.1.11 Space Systems: Patterns and Cycles

SC.1.11.3 Gather, analyze, and communicate evidence of patterns and cycles of space systems.

SC.1.11.3.a **Use observations** of the sun, moon, and stars to describe patterns that can be predicted. Assessment of star patterns is limited to stars being seen at night and not during the day.

SC.1.11.3.b **Make observations** at different times of the year to relate the amount of daylight to the time of year. Assessment is limited to relative amounts of daylight, not quantifying the hours or time of daylight.

GRADE 2

The grade 2 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How are materials similar and different from one another and how do the properties of the materials relate to their use?
An understanding of observable properties of materials is developed by students at this level through analysis and classification of different materials.

What do plants need to grow?
Students are expected to develop an understanding of what plants need to grow and how plants depend on animals for seed dispersal and pollination.

How many types of living things live in a place?
Students are expected to compare the diversity of life in different habitats.

How does land change and what causes it to change?
Students are able to apply their understanding of the idea that wind and water can change the shape of land to compare design solutions to slow or prevent such change.

What are the different kinds of land and bodies of water?
Students are able to use information and models to identify and represent the shapes and kinds of land and bodies of water in an area and where water is found on Earth.

SC.2.3 Structure and Properties of Matter
SC.2.3.1 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.

SC.2.3.1.a **Plan and conduct an investigation** to describe and classify different kinds of materials by their observable properties.

Soil properties

SC.2.3.1.b **Analyze data obtained from testing different materials** to determine which materials have the properties that are best suited for an intended purpose. Assessment of quantitative measurements is limited to length and weight.

SC.2.3.1.c **Analyze data** from tests of two objects, **designed to solve the same problem**, to compare the strengths and weaknesses based on the properties.

SC.2.3.1.d **Make observations to construct an evidence-based account** of how an object made of a small set of pieces can be disassembled and made into a new object.

SC.2.3.1.e **Construct an argument with evidence** that some changes caused by heating or cooling can be reversed and some cannot.

SC.2.7 Interdependent Relationships in Ecosystems
SC.2.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.

SC.2.7.2.a **Plan and conduct an investigation** to determine if plants need sunlight and water to grow. Assessment is limited to testing one variable at a time.

SC.2.7.2.b **Develop a simple model** that mimics the function of an animal in dispersing seeds or pollinating plants.

SC.2.7.2.c **Make observations** of plants and animals **to compare** the diversity of life in different habitats. Assessment does not include specific animal and plant names in specific habitats.

NE habitats

SC.2.13 Earth's Systems: Processes That Shape the Earth

SC.2.13.3 Gather, analyze, and communicate evidence of the processes that shape the earth.

SC.2.13.3.a **Use information from several sources to provide evidence** that Earth events can occur quickly or slowly. Assessment does not include quantitative measurements of timescales.

Flooding and tornadoes quickly cause change; wind slowly formed the Sandhills

SC.2.13.3.b **Compare multiple solutions designed to** slow or prevent wind or water from changing the shape of the land.

Soil conservation

SC.2.13.3.c **Develop a model to represent** the shapes and kinds of land and bodies of water in an area. Assessment does not include quantitative scaling in models.

Human made dams, sandbagging, windbreaks, terracing

SC.2.13.3.d **Obtain information to identify** where water is found on Earth and that it can be solid or liquid.

NE water bodies

GRADE 3

The grade 3 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How do equal and unequal forces on an object affect the object?
Students are able to determine the effects of balanced and unbalanced forces on the motion of an object and the cause and effect relationships of electrical or magnetic interactions between two objects not in contact with each other.

How can magnets be used?
Students are able to apply their understanding of magnetic interactions to define a simple design problem that can be solved with magnets.

How do organisms vary in their traits?
Students are expected to develop an understanding of the similarities and differences of organisms' life cycles. Students develop an understanding that organisms have different inherited traits and that the environment can also affect the traits that an organism develops. In addition, students are able to construct an explanation using evidence for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

How are plants, animals, and environments of the past similar or different from current plants, animals, and environments?
Students are expected to develop an understanding of types of organisms that lived long ago, and also about the nature of their environments.

What happens to organisms when their environment changes?
Students are expected to develop an understanding of the idea that when the environment changes some organisms survive and reproduce, some move to new locations, some move into the transformed environment, and some die.

What is typical weather in different parts of the world and during different times of the year?
Students are able to organize and use data to describe typical weather conditions expected during a particular season.

How can the impact of weather-related hazards be reduced?
By applying their understanding of weather-related hazards, students are able to make a claim about the merit of a design solution that reduces the impacts of such hazards.

SC.3.1 Forces and Interactions: Motion and Stability

SC.3.1.1 Gather, analyze, and communicate evidence of forces and their interactions.

SC.3.1.1.a **Plan and conduct an investigation** to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. Assessment is limited to one variable at a time: number, size, or direction of forces. Assessment does not include quantitative force size, only qualitative and relative. Assessment is limited to gravity being addressed as a force that pulls objects down.

SC.3.1.1.b **Make observations and/or measurements** of an object's motion to provide evidence that a pattern can be used to predict future motion. Assessment does not include technical terms such as period and frequency.

SC.3.1.1.c **Ask questions** to determine cause and effect relationships of electrical or magnetic interactions between two objects not in contact with each other. Assessment is limited to forces produced by objects that can be manipulated by students. Electrical interactions are limited to static electricity.

SC.3.1.1.d **Define a simple design problem** that can be solved by applying scientific ideas about magnets.

SC.3.7 Interdependent Relationships in Ecosystems

SC.3.7.2 Gather, analyze, and communicate evidence of the interdependent relations in ecosystems.

SC.3.7.2.a **Construct an argument** that some animals form groups that help members survive.

NE animals

SC.3.7.2.b **SC.3.7.2.b Analyze and interpret data** from fossils to provide evidence of the organisms and environments in which they lived long ago. Assessment does not include identification of specific fossils or present plants and animals. Assessment is limited to major fossil types and relative ages.

NE fossils; NE geologic history

SC.3.7.2.c **Construct an argument with evidence** that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.

NE habitats

SC.3.7.2.d **Make a claim about the merit of a solution to a problem** caused when the environment changes and the types of plants and animals that live there may change. Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.

NE habitats

SC.3.7.2.e **Generate and compare multiple possible solutions to a problem** based on how well each is likely to meet the criteria and constraints of the problem.

SC.3.9 Inheritance and Variation: Life Cycles and Traits

SC.3.9.3 Gather and analyze data to communicate an understanding of inheritance and variation of traits through life cycles and environmental influences.

SC.3.9.3.a **Develop models** to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death. Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.

NE plants and animals

SC.3.9.3.b **Analyze and interpret data** to provide evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms. Assessment does not include genetic mechanisms of inheritance and prediction of traits. Assessment is limited to non-human examples.

NE plants and animals

SC.3.9.3.c **Use evidence to support the explanation** that traits can be influenced by the environment.

NE plants, animals, and habitats

SC.3.9.3.d **Use evidence to construct an explanation** for how the variations in characteristics among individuals of the same species may provide advantages in surviving, finding mates, and reproducing.

NE plants, animals, and habitats

SC.3.12 Weather and Climate

SC.3.12.4 Gather and analyze data to communicate an understanding of weather and climate.

SC.3.12.4.a **Represent data** in table, pictograph, and bar graph displays to describe typical weather conditions expected during a particular season. Assessment of graphical displays is limited to pictographs and bar graphs. Assessment does not include climate change.

NE weather and climate

SC.3.12.4.b **Obtain and combine information** to describe climates in different regions of the world.

SC.3.12.4.c **Make a claim about the merit of a design solution** that reduces the impacts of a weather-related hazard.

GRADE 4

The grade 4 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

What are waves and what are some of the things they can do?
Students are able to use a model of waves to describe patterns of waves in terms of amplitude and wavelength, and that waves can cause objects to move.

What is energy and how is it related to motion?
Students are able to use evidence to construct an explanation of the relationship between the speed of an object and the energy of that object.

How is energy transferred?
Students are expected to develop an understanding that energy can be transferred from place to place by sound, light, heat, and electrical currents or from object to object through collisions.

How can energy be used to solve a problem?
They apply their understanding of energy to design, test, and refine a device that converts energy from one form to another.

How do internal and external structures support the survival, growth, behavior, and reproduction of plants and animals?
Students are expected to develop an understanding that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. By developing a model, students describe that an object can be seen when light reflected from its surface enters the eye.

How can water, ice, wind and vegetation change the land?
Students are expected to develop understanding of the effects of weathering or the rate of erosion by water, ice, wind or vegetation. They apply their knowledge of natural Earth processes to generate and compare multiple solutions to reduce the impacts of such processes on humans.

What patterns of Earth's features can be determined with the use of maps?
In order to describe patterns of Earth's features, students analyze and interpret data from maps.

SC.4.2 Waves: Waves and Information

SC.4.2.1 Gather, analyze, and communicate evidence of waves and the information they transfer.



SC.4.2.1.a **Develop a model** of waves to describe patterns in terms of amplitude and wavelength and that waves can cause objects to move. Assessment does not include interference effects, electromagnetic waves, non-periodic waves, or quantitative models of amplitude and wavelength.



SC.4.2.1.b **Generate and compare multiple solutions** that use patterns to transfer information.

SC.4.4 Energy: Conservation and Transfer

SC.4.4.2 Gather, analyze and communicate evidence of energy conservation and transfer.

SC.4.4.2.a Use evidence to **construct an explanation** relating the speed of an object to the energy of that object. Assessment does not include quantitative measures of changes in the speed of an object or on any precise or quantitative definition of energy.

SC.4.4.2.b **Make observations** to provide evidence that energy can be transferred from place to place by sound, light, heat, and electrical currents. Assessment does not include quantitative measurements of energy.

NE energy producers

SC.4.4.2.c **Ask questions** and predict outcomes about the changes in energy that occur when objects collide. Assessment does not include quantitative measurements of energy.

SC.4.4.2.d Apply scientific ideas to **design, test, and refine a device** that converts energy from one form to another. Devices should be limited to those that convert motion energy to electric energy or use stored energy to cause motion or produce light or sound.

SC.4.4.2.e **Plan and carry out fair tests in which variables are controlled** and failure points are considered to identify aspects of a model or prototype that can be improved.

SC.4.4.2.f **Obtain and combine information** to describe that energy and fuels are derived from natural resources and that their uses affect the environment.

NE ethanol production

SC.4.6 Structure, Function, and Information Processing

SC.4.6.3 Gather and analyze data to communicate an understanding of structure, function and information processing of living things.

SC.4.6.3.a **Develop a model** to describe that light reflecting from objects and entering the eyes allows objects to be seen. Assessment does not include knowledge of specific colors reflected and seen, the cellular mechanisms of vision, or how the retina works.

SC.4.6.3.b **Construct an argument** that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. Assessment is limited to macroscopic structures within plant and animal systems.

NE plants and animals

SC.4.6.3.c **Use a model** to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information. Assessment does not include the mechanisms by which the brain stores and recalls information or the mechanisms of how sensory receptors function.

NE plants and animals

SC.4.13 Earth's Systems: Processes That Shape the Earth

SC.4.13.4 Gather and analyze data to communicate an understanding of Earth's systems and processes that shape the Earth.

SC.4.13.4.a **Identify evidence** from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time. Assessment does not include specific knowledge of the mechanism of rock formation or memorization of specific rock formations and layers. Assessment is limited to relative time.

NE fossils and geologic history

SC.4.13.4.b **Make observations and/or measurements** to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation. Assessment is limited to a single form of weathering or erosion.



SC.4.13.4.c **Analyze and interpret data** from maps to describe patterns of Earth's features.

SC.4.13.4.d **Generate and compare multiple solutions** to reduce the impacts of natural Earth processes on humans.
Assessment is limited to earthquakes, floods, tsunamis, and volcanic eruptions.

GRADE 5

The grade 5 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

When matter changes, does its weight (mass) change?
Students are able to describe that matter is made of particles too small to be seen through the development of a model. Students develop an understanding of the idea that regardless of the type of change that matter undergoes, the total weight of matter is conserved.

Can new substances be created by combining other substances?
Students determine whether the mixing of two or more substances results in new substance.

How does matter cycle through ecosystems and where does the energy in food come from and what is it used for?
Students develop an understanding of the idea that plants get the materials they need for growth chiefly from air and water. Using models, students can describe the movement of matter among plants, animals, decomposers, and the environment and that energy in animals' food was once energy from the sun.

How much water can be found in different places on Earth and how does water move through the Earth system?
Students describe and graph data to provide evidence about the distribution of water on Earth. Through the development of a model using an example students are able to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. This model will also allow students to define a simple design problem that relates to the conservation of fresh water.

How do lengths and directions of shadows or relative lengths of day and night change from day to day, and how does the appearance of some stars change in different seasons?
Students are expected to develop an understanding of patterns of daily changes in length and direction of shadows, day and night, and the seasonal appearance of some stars in the night sky.

SC.5.3 Structure and Properties of Matter
SC.5.3.1 Gather, analyze, and communicate evidence of structure and properties of matter.

SC.5.3.1.a **Develop a model** to describe that matter is made of particles too small to be seen. Assessment does not include the atomic-scale mechanism of evaporation and condensation or defining the unseen particles.

SC.5.3.1.b **Measure and graph quantities** to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved. Assessment does not include distinguishing mass and weight.

SC.5.3.1.c **Make observations and measurements** to identify materials based on their properties. Assessment does not include density or distinguishing mass and weight.

SC.5.3.1.d **Conduct an investigation** to determine whether the mixing of two or more substances results in new substances.

SC.5.8 Matter and Energy in Organisms and Ecosystems
SC.5.8.2 Gather and analyze data to communicate understanding of matter and energy in organisms and ecosystems.

SC.5.8.2.a **Use models** to describe that energy in animals' food (used for body repair, growth, and motion and to maintain body warmth) was once energy from the sun.

SC.5.8.2.b **Support an argument** that plants get the materials they need for growth chiefly from air and water.

SC.5.8.2.c **Develop a model** to describe the movement of matter among plants, animals, decomposers, and the environment. Assessment does not include molecular explanations or the biochemical mechanisms of photosynthesis.

NE ecosystems

SC.5.11 Space Systems: Earth's Stars and Solar System

SC.5.11.3 Gather and analyze data to communicate understanding of space systems: Earth's stars and solar system.

SC.5.11.3.a **Support an argument** that the gravitational force exerted by Earth on objects is directed down toward Earth's center. Assessment does not include mathematical representation of gravitational force.

SC.5.11.3.b **Support an argument** that differences in the apparent brightness of the sun compared to other stars is due to their relative distances from Earth. Assessment is limited to relative distances, not sizes, of stars. Assessment does not include other factors that affect apparent brightness (such as stellar masses, age, and stage).

SC.5.11.3.c **Represent data in graphical displays** to reveal patterns of daily changes in the length and direction of shadows, length of day and night, and the seasonal appearance of some stars in the night sky. Assessment does not include causes of seasons.

SC.5.13 Earth's Systems

SC.5.13.4 Gather and analyze data to communicate understanding of Earth's systems.

SC.5.13.4.a **Develop a model** using an example to describe ways the geosphere, biosphere, hydrosphere, and/or atmosphere interact. Assessment is limited to the interactions of two systems at a time.

NE systems

SC.5.13.4.b **Describe and graph** the amounts of salt water and fresh water in various reservoirs to provide evidence about the distribution of water on Earth. Assessment is limited to oceans, lakes, rivers, glaciers, groundwater, and polar ice caps but does not include the atmosphere.

NE bodies of water

SC.5.13.4.c **Obtain and combine information** about ways individual communities use science ideas to protect the Earth's resources and environment.

NE conservation organizations

SC.5.13.4.d **Define a simple design problem** that can be solved by applying scientific ideas about the conservation of fresh water on Earth.

NE conservation organizations

SC.5.13.4.e **Define a simple design problem** reflecting a need or a want that includes specified criteria for success and constraints on materials, time, or cost.

GRADE 6

The grade 6 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How can energy be transferred from one object or system to another?
Students are expected to know the difference between energy and temperature and begin to develop an understanding of the relationship between force and energy. Students are also expected to apply an understanding of design to the process of energy transfer.

How do the structures of organisms contribute to life's functions?
Students are expected to understand that all organisms are made of cells, that special structures are responsible for particular functions in organisms, and that for many organisms the body is a system of multiple interacting subsystems that form a hierarchy from cells to the body.

How do organisms grow, develop, and reproduce?
Students are expected to explain how select structures, functions, and behaviors of organisms change in predictable ways as they progress from birth to old age.

What factors interact and influence weather and climate?
Students are expected to construct and use models to develop an understanding of the factors that determine weather and climate. A systems approach is also important here, examining the feedbacks between systems as energy from the sun is transferred between systems and circulates through the oceans and atmosphere.

How does water move through Earth's systems?
Students understand how Earth's geosystems operate by modeling the flow of energy and cycling of matter within and among different systems.

SC.6.4 Energy

SC.6.4.1 Gather, analyze, and communicate evidence of energy.

SC.6.4.1.a Apply scientific principles to **design, construct, and test a device** that either minimizes or maximizes thermal energy transfer. Assessment does not include calculating the total amount of thermal energy transferred.

SC.6.4.1.b **Define the criteria and constraints of a design problem** with sufficient precision to ensure a successful solution, taking into account relevant scientific principle and potential impacts on people and the natural environment that may limit possible solutions.

SC.6.4.1.c **Plan an investigation** to determine the relationships among the energy transferred, type of matter, mass, and change in average kinetic energy of particles as measured by the temperature of the sample. Assessment does not include calculating the total amount of thermal energy transferred.

SC.6.4.1.d **Construct, use, and present arguments** to support the claim that when kinetic energy of an object changes, energy is transferred to or from the object. Assessment does not include calculations of energy.

SC.6.6 Structure and Function and Information Processing

SC.6.6.2 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.

SC.6.6.2.a **Conduct an investigation** to provide evidence that living things are made of cells; either one cell or many varied cells.

SC.6.6.2.b **Develop and use a model** to describe the function of a cell as a whole and ways parts of a cell contribute to the function. Assessment of organelle structure/function relationships is limited to the cell wall and cell membrane. Assessment of the function of the other organelles is limited to their relationship to the whole cell. Assessment does not include the biochemical function of cells or cell parts.

SC.6.6.2.c **Use argument supported by evidence** for how the body is a system of interacting subsystems composed of groups of cells. Assessment does not include the mechanism of one body system independent of others. Assessment is limited to the circulatory, excretory, digestive, respiratory, muscular, and nervous systems.

SC.6.6.2.d **Gather and synthesize information** that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or stored as memories. Assessment does not include mechanisms for the transmission of this information.

SC.6.9 Growth, Development, and Reproduction of Organisms

SC.6.9.3 Gather, analyze, and communicate evidence of the inheritance and variation of traits.

SC.6.9.3.a **Construct an argument** based on evidence for how plant and animal adaptations affect the probability of successful reproduction.

monarchs/milkweed; seed dispersal in prairie grasses

SC.6.9.3.b **Construct a scientific explanation** based on evidence for how environmental and genetic factors influence the growth of organisms. Assessment does not include genetic mechanisms, gene regulation, or biochemical processes.

NE plants and animals

SC.6.9.3.c **Develop and use a model** to describe why asexual reproduction results in offspring with identical genetic information and sexual reproduction results in offspring with genetic variation. Assessment does not include specific changes at the molecular level, mechanisms for protein synthesis, or specific types of mutations.

SC.6.12 Weather and Climate

SC.6.12.4 Gather, analyze, and communicate evidence of factors and interactions that affect weather and climate.

SC.6.12.4.a **Collect data** to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions. Assessment does not include recalling the names of cloud types or weather symbols used on weather maps or the reported diagrams from weather stations.

NE weather conditions

SC.6.12.4.b **Develop and use a model** to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates. Assessment does not include the dynamics of the Coriolis effect.

SC.6.12.4.c **Ask questions** to clarify evidence of the factors that have caused the change in global temperatures over thousands of years.

SC.6.12.4.d **Analyze and interpret data** on weather and climate to forecast future catastrophic events and inform the development of technologies to mitigate their effect.

SC.6.13 Earth's Systems

SC.6.13.5 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter associated with Earth's materials and processes.



SC.6.13.5.a **Develop a model** to describe how the water cycle is driven by the sun's energy and the force of gravity.

A quantitative understanding of the latent heat of vaporization and fusion is not assessed.



NE systems

GRADE 7

The grade 7 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How does thermal energy affect particles?
Students will be able to provide molecular level descriptions that explain states of matter and changes between states.

Why do different pure substances have different physical and chemical properties and how do those properties determine how substances are used?
Students are expected to understand what occurs at the atomic molecular scales.

What happens when new materials are formed?
Students are expected to provide molecular level descriptions to explain that chemical reactions involve regrouping of atoms to form new substances and that atoms rearrange during chemical reactions.

How do organisms obtain and use energy?
Students are expected to use conceptual and physical models to explain the transfer of energy and cycling of matter as they construct explanations for the role of photosynthesis in cycling matter in ecosystems.

How does matter and energy move through an ecosystem?
Students are expected to construct explanations for the cycling of matter in organisms and the interaction of organisms to obtain matter and energy from an ecosystem to survive and grow.

How do organisms interact with other organisms in the physical environment to obtain matter and energy?
Students are expected to understand that organisms and populations of organisms are dependent on their environmental interactions both with other organisms and with non-living factors.

How do people figure out that Earth and life on Earth have changed over time?
Students are expected to examine geoscience data in order to understand the processes and events in Earth's history.

How do the materials in and on Earth's crust change over time?
Students are expected to understand how Earth's geosystems operate by modeling the flow of energy and the cycling of matter within and among different systems.

How do human activities affect Earth's systems?
Students are expected to understand the ways that human activities impact Earth's other systems

SC.7.3 Structure and Properties of Matter
SC.7.3.1 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.

SC.7.3.1.a **Develop models** to describe the atomic composition of simple molecules. Assessment does not include valence electrons and bonding energy, discussing the ionic nature of subunits of complex structures, or a complete description of all individual atoms in a complex molecule or extended structure is not required.

SC.7.3.1.b **Gather and make sense of information** to describe how natural materials may undergo chemical reactions to create new synthetic materials and have an impact on society. Assessment is limited to qualitative information.

SC.7.3.1.c **Develop a model** that predicts and describes changes in particle motion, temperature, and state of a pure substance when thermal energy is added or removed.

SC.7.5 Chemical Reactions

SC.7.5.2 Gather, analyze, and communicate evidence of chemical reactions.

SC.7.5.2.a **Analyze and interpret data** on the properties of substances before and after the substances interact to determine if a chemical reaction has occurred. Assessment is limited to analysis of the following properties: density, melting point, boiling point, solubility, flammability, and odor.

SC.7.5.2.b **Develop and use a model** to describe how the total number of atoms does not change in a chemical reaction and thus mass is conserved. Assessment does not include the use of atomic masses, balancing symbolic equations, or intermolecular forces.

SC.7.5.2.c **Undertake a design project** to construct, test, and modify a device that either releases or absorbs thermal energy by chemical processes. Assessment is limited to the criteria of amount, time, and temperature of substance in testing the device.

SC.7.5.2.d **Analyze data from tests** to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

SC.7.7 Interdependent Relationships in Ecosystems

SC.7.7.3 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.

SC.7.7.3.a **Construct an explanation** that predicts patterns of interactions among organisms across multiple ecosystems.

NE ecosystems

SC.7.7.3.b **Develop and use a model** to describe how stable ecosystems maintain biodiversity and ecosystem services.

NE endangered species and reintroduction of species

SC.7.7.3.c **Evaluate competing design solutions** using a systematic process to determine how well they meet the criteria and constraints of the problem.

SC.7.7.3.d Apply scientific principles to **design a method for monitoring and increasing positive human impact** on the environment.

SC.7.8 Matter and Energy in Organisms and Ecosystems

SC.7.8.4 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems.

SC.7.8.4.a **Construct a scientific explanation** based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms. Assessment does not include the biochemical mechanisms of photosynthesis.

NE food webs

SC.7.8.4.b **Develop a model** to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as matter moves through an organism. Assessment does not include details of the chemical reactions for photosynthesis or respiration.

SC.7.8.4.c **Analyze and interpret data** to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

NE plants and animals

SC.7.8.4.d **Develop a model** to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem. Assessment does not include the use of chemical reactions to describe the processes.

NE ecosystems

SC.7.8.4.e **Construct an argument** supported by evidence that changes to physical or biological components of an ecosystem affect populations.

NE ecosystems

SC.7.13 Earth's Systems

SC.7.13.5 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter associated with Earth's materials and processes.

SC.7.13.5.a **Develop a model** to describe the cycling of Earth's materials and the flow of energy that drives this process. Assessment does not include the identification and naming of minerals.

SC.7.13.5.b **Construct a scientific explanation** based on evidence for how the uneven distributions of Earth's mineral, energy, and groundwater resources are the result of past and current geoscience processes.

NE resources

SC.7.13.5.c **Construct an argument** supported by evidence for how increases in human population and per-capita consumption of natural resources impact Earth's systems.

Food security and NE agriculture

SC.7.14 History of Earth

SC.7.14.6 Gather, analyze, and communicate evidence to explain Earth's history.

SC.7.14.6.a **Construct an explanation** based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

NE geographic features

SC.7.14.6.b **Analyze and interpret data** on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of past plate motions. Paleomagnetic anomalies in oceanic and continental crust are not assessed.

SC.7.14.6.c **Analyze and interpret data** on geologic hazards to forecast future catastrophic events and inform the development of technologies to mitigate their effects.

GRADE 8

The grade 8 standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How can one describe physical interactions between objects and within systems of objects?
Students will be expected to apply Newton's Third Law of Motion to relate forces to explain the motion of objects. Students also apply ideas about gravitational, electrical, and magnetic forces to explain a variety of phenomena including beginning ideas about why some materials attract each other while other repel.

How does the energy of an object change related to its mass, speed, and position in a system?
Students understand that objects that are moving have kinetic energy and that objects may also contain stored (potential) energy, depending on their relative positions.

What are the characteristic properties of waves and how can they be used?
Students are expected to describe and predict characteristic properties and behaviors of waves when the waves interact with matter. Students can apply an understanding of waves as a means to send digital information.

What factors cause genes to change and how does that affect the structure and function of organisms?
Students are expected to understand the ways humans can select for specific traits, the role of technology, genetic modification, and the nature of ethical responsibilities related to selective breeding.

How does genetic variation among organisms in a species affect survival and reproduction? How does the environment influence genetic traits in populations over multiple generations?
Students are expected to analyze data from the fossil record to describe evidence of the history of life on Earth and can construct explanations for similarities in organisms. They have a beginning understanding of the role of variation in natural selection and how this leads to speciation.

What is Earth's place in the Universe? What makes up our solar system and how can the motion of Earth explain seasons and eclipses?
Students are expected to examine the Earth's place in relation to the solar system, Milky Way galaxy, and universe. There is a strong emphasis on a systems approach, using models of the solar system to explain astronomical and other observations of the cyclic patterns of eclipses, tides, and seasons

SC.8.1 Forces and Interactions
SC.8.1.1 Gather, analyze, and communicate evidence of forces and interactions.

SC.8.1.1.a Apply Newton's Third Law to **design a solution** to a problem involving the motion of two colliding objects.
Assessment is limited to vertical or horizontal interactions in one dimension.

SC.8.1.1.b **Develop a model** to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

SC.8.1.1.c **Plan an investigation** to provide evidence of Newton's Laws that the change in an object's motion depends on the sum of the forces on the object and the mass of the object. Assessment is limited to forces and changes in motion in one-dimension in an inertial reference frame and to change in one variable at a time; does not include use of trigonometry.

SC.8.1.1.d **Ask questions** about data to determine the factors that affect the strength of electrical and magnetic forces. Assessment about questions that require quantitative answers is limited to proportional reasoning and algebraic thinking.

SC.8.1.1.e **Construct and present arguments** using evidence to support the claim that gravitational interactions are attractive and depend on both the mass and distance of interacting objects. Assessment does not include Newton's Law of Gravitation or Kepler's Laws.

SC.8.1.1.f **Conduct an investigation** and evaluate the experimental design to provide evidence that electrical and magnetic fields exist between objects exerting forces on each other even though the objects are not in contact. Assessment is limited to electric and magnetic fields, and limited to qualitative evidence for the existence of fields.

SC.8.2 Waves and Electromagnetic Radiation

SC.8.2.2 Gather, analyze, and communicate evidence of waves and electromagnetic radiation.

SC.8.2.2.a **Use mathematical representations** to describe a simple model for waves that includes how the amplitude of a wave is related to the energy in a wave. Assessment does not include electromagnetic waves and is limited to standard repeating waves.

SC.8.2.2.b **Develop and use a model** to describe that Light and mechanical waves are reflected, absorbed, or transmitted through various materials. Assessment is limited to qualitative applications pertaining to light and mechanical waves.

SC.8.2.2.c **Gather and make sense of information** to support the claim that the structure of analog and digital signals allows for encoding and transmission of information.

SC.8.4 Energy

SC.8.4.3 Gather, analyze, and communicate evidence of energy.

SC.8.4.3.a **Construct and interpret graphical displays of data** to describe the relationships of kinetic energy to the mass and speed of an object.

SC.8.4.3.b **Develop a model** to describe that when the arrangement of objects interacting at a distance changes, then different amounts of potential energy are stored in the system. Assessment is limited to two objects. Assessment is limited to electric, magnetic, and gravitational interactions.

SC.8.9 Heredity: Inheritance and Variation of Traits

SC.8.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.

SC.8.9.4.a **Develop and use a model** to describe why structural changes to genes (mutations) may result in harmful, beneficial, or neutral effects to structure and function of organisms. Assessment does not include specific changes at the molecular level, mechanisms for protein synthesis, or specific types of mutations.

SC.8.9.4.b **Gather and synthesize information** about technologies that have changed the way humans influence inheritance of desired traits in organisms.

NE agriculture practices

SC.8.10 Natural Selection and Adaptations

SC.8.10.5 Gather, analyze, and communicate evidence of natural selection and adaptations.

SC.8.10.5.a **Analyze and interpret data** for patterns in the fossil record that document the existence, diversity, extinction, and change of life forms throughout the history of life on Earth under the assumption that natural laws operate today as in the past. Assessment does not include the names of individual species or geological eras in the fossil record.

NE Geological History

SC.8.10.5.b **Apply scientific ideas to construct an explanation** for the anatomical similarities and differences among and between modern and fossil organisms to infer evolutionary relationships.

NE Geological History

SC.8.10.5.c **Construct an explanation** based on evidence that describes how genetic variations of traits in a population increase some individuals' probability of surviving and reproducing in a specific environment.

SC.8.10.5.d **Use mathematical representations** to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time. Assessment does not include Hardy Weinberg calculations.

NE plants and animals

SC.8.11 Space Systems

SC.8.11.6 Gather, analyze, and communicate evidence of the interactions among bodies in space.

SC.8.11.6.a **Develop and use a model** of the Earth-sun-moon system to describe the cyclic patterns of lunar phases, eclipses of the sun and moon, and seasons.

SC.8.11.6.b **Develop and use a model** to describe the role of gravity in the motions within the galaxy and the solar system. Assessment does not include Kepler's Laws of orbital motion or the apparent retrograde motion of planets as viewed from Earth.

SC.8.11.6.c **Analyze and interpret data** to determine scale properties of objects in the solar system. Assessment does not include recalling facts about properties of the planets and other solar system bodies.

SC.8.14 History of Earth

SC.8.14.7 Gather, analyze, and communicate evidence to explain Earth's history.

SC.8.14.7.a **Construct a scientific explanation** based on evidence found within rock strata, including index fossils, for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history. Assessment does not include recalling the names of specific periods or epochs and events within them.

NE Geological History

HS PHYSICAL SCIENCES

The physical science standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How can one explain the structure and properties of matter?
Students are expected to develop understanding of the substructure of atoms and provide more mechanistic explanations of the properties of substances. Students are able to use the periodic table as a tool to explain and predict the properties of elements.

How do substances combine or change (react) to make new substances? How does one characterize and explain these reactions and make predictions about them?"
Students will be able to explain important biological and geophysical phenomena. Students are also able to apply an understanding of the process of optimization in engineering design to chemical reaction systems.

How can one explain and predict interactions between objects and within systems of objects?
Students are expected to build an understanding of forces and interactions, total momentum of a system of objects is conserved when there is no net force on the system, and predict the gravitational and electrostatic forces between objects. Students are able to apply scientific and engineering ideas to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision.

How is energy transferred and conserved?
Students are expected to develop an understanding that energy at both the macroscopic and the atomic scale can be accounted for as either motions of particles or energy associated with the configuration (relative positions) of particles. In some cases, the energy associated with the configuration of particles can be thought of as stored in fields.

How are waves used to transfer energy and send and store information?
Students are expected to apply understanding of how wave properties and the interactions of electromagnetic radiation with matter can transfer information across long distances, store information, and investigate nature on many scales.

SC.HS.1 Forces and Interactions
SC.HS.1.1 Gather, analyze, and communicate evidence of forces and interactions.

SC.HS.1.1.a **Analyze data** to support the claim that Newton's Second Law of Motion describes the mathematical relationship among the net force on a macroscopic object, its mass, and its acceleration. Assessment is limited to one-dimensional motion and to macroscopic objects moving at non-relativistic speeds.

SC.HS.1.1.b **Use mathematical representations** to support the claim that the total momentum of a system of objects is conserved when there is no net force on the system. Assessment is limited to systems of two macroscopic bodies moving in one dimension.

NE roadside and highway safety

SC.HS.1.1.c **Apply science and engineering ideas to design, evaluate, and refine** a device that minimizes the force on a macroscopic object during a collision. Assessment is limited to qualitative evaluations and/or algebraic manipulations.

SC.HS.1.1.d **Use mathematical representations** of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects. Assessment is limited to systems with two objects.

SC.HS.1.1.e **Plan and conduct an investigation** to provide evidence that an electrical current can produce a magnetic field and that a changing magnetic field can produce an electrical current. Assessment is limited to designing and conducting investigations with provided materials and tools.

NE energy producers

SC.HS.2 Waves and Electromagnetic Radiation

SC.HS.2.2 Gather, analyze, and communicate evidence of the interactions of waves.

SC.HS.2.2.a **Use mathematical representations** to support a claim regarding relationships among the frequency, wavelength, and speed of waves traveling in various media. Assessment is limited to algebraic relationships and describing those relationships qualitatively.

SC.HS.2.2.b **Evaluate claims** about the advantages of digital transmission and storage of information.

SC.HS.2.2.c **Evaluate the claims, evidence, and reasoning** behind the idea that electromagnetic radiation can be described either by a wave model or a particle model, and that for some situations one model is more useful than the other. Assessment does not include using quantum theory.

SC.HS.2.2.d **Evaluate the validity and reliability of claims** in published materials of the effects that different frequencies of electromagnetic radiation have when absorbed by matter. Assessment is limited to qualitative descriptions.

SC.HS.2.2.e **Communicate technical information** about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy. Assessments are limited to qualitative information. Assessments do not include band theory.

SC.HS.3 Structure and Properties of Matter

SC.HS.3.3 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.

SC.HS.3.3.a **Use the periodic table as a model** to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms. Assessment is limited to main group elements. Assessment does not include quantitative understanding of ionization energy beyond relative trends.

NE Geology

SC.HS.3.3.b **Plan and conduct an investigation** to gather evidence to compare the structure of substances at the macro scale to infer the strength of electrical forces between particles. Assessment does not include Raoult's law calculations of vapor pressure.

SC.HS.3.3.c **Develop models** to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay. Assessment does not include quantitative calculation of energy released. Assessment is limited to alpha, beta, and gamma radioactive decays.

NE Geologic history and nuclear power production

SC.HS.3.3.d **Communicate scientific and technical information** about why the molecular-level structure is important in the functioning of designed materials. Assessment is limited to provided molecular structures of specific designed materials.

NE manufacturers

SC.HS.4 Energy

SC.HS.4.4 Gather, analyze, and communicate evidence of the interactions of energy.

SC.HS.4.4.a **Create a computational model** to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known. Assessment is limited to basic algebraic expressions or computations; to systems of two or three components; and to thermal energy, kinetic energy, and/or the energies in gravitational, magnetic, or electric fields.

SC.HS.4.4.b **Develop and use models** to illustrate that energy at the macroscopic scale can be accounted for as a combination of energy associated with the motion of particles (objects) and energy associated with the relative positions of particles (objects).

SC.HS.4.4.c **Design, build, and refine a device** that works within given constraints to convert one form of energy into another form of energy. Assessment for quantitative evaluations is limited to total output for a given input. Assessment is limited to devices constructed with materials provided to students.

NE energy producers

SC.HS.4.4.d **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants.

SC.HS.4.4.e **Plan and conduct an investigation** to provide evidence that the transfer of thermal energy when two components of different temperature are combined within a closed system results in a more uniform energy distribution among the components in the system (second law of thermodynamics). Assessment is limited to investigations based on materials and tools provided to students.

SC.HS.4.4.f **Develop and use a model** of two objects interacting through electrical or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction. Assessment is limited to systems containing two objects.

SC.HS.5 Chemical Reactions

SC.HS.5.5 Gather, analyze, and communicate evidence of chemical reactions.

SC.HS.5.5.a **Construct and revise an explanation** for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties. Assessment is limited to chemical reactions involving main group elements and combustion reactions.

NE energy and ethanol production

SC.HS.5.5.b **Develop a model** to illustrate that the release or absorption of energy from a chemical reaction system depends on the changes in total bond energy. Assessment does not include calculating the total bond energy changes during a chemical reaction from the bond energies of reactants and products.

NE energy and ethanol production

SC.HS.5.5.c **Apply scientific principles** and evidence to provide an explanation about the effects of changing the temperature or concentration of the reacting particles on the rate at which a reaction occurs. Assessment is limited to simple reactions in which there are only two reactants; evidence from temperature, concentration, and rate data; and qualitative relationships between rate and temperature.

NE energy and ethanol production

SC.HS.5.5.d **Refine the design** of a chemical system by specifying a change in conditions that would produce increased amounts of products at equilibrium. Assessment is limited to specifying the change in only one variable at a time. Assessment does not include calculating equilibrium constants and concentrations.

NE energy and ethanol production

SC.HS.5.5.e **Design a solution** to a complex real-world problem by breaking it down into smaller, more manageable problems that can be solved through engineering.

SC.HS.5.5.f **Use mathematical representations** to support the claim that atoms, and therefore mass, are conserved during a chemical reaction. Assessment does not include complex chemical reactions.

NE energy and ethanol production

HS LIFE SCIENCES

The life science standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interest and current topics that may include but are not limited to:

How do the structures of organisms enable life's functions?
Students are expected to investigate explanations for the structure and function of cells as the basic units of life, the hierarchical systems of organisms, and the role of specialized cells for maintenance and growth. Students will demonstrate understanding of how systems of cells function together to support the life processes.

How are the characteristics from one generation related to the previous generation?
High school students demonstrate understanding of the relationship of DNA and chromosomes in the processes of cellular division that pass traits from one generation to the next. Students can determine why individuals of the same species vary in how they look, function, and behave. Ethical issues related to genetic modification of organisms and the nature of science can be described.

How do organisms obtain and use energy they need to live and grow? How do matter and energy move through ecosystems?
Students will be expected to develop understanding of organisms' interactions with each other and their physical environment, how organisms obtain resources, change the environment, and how these changes affect both organisms and ecosystems. Students will use mathematical concepts to construct explanations for the role of energy in the cycling of matter in organisms and ecosystems.

How do organisms interact with the living and non-living environment to obtain matter and energy?
Students will be expected to investigate the role of biodiversity in ecosystems and the role of animal behavior on survival of individuals and species. Students will develop increased understanding of interactions among organisms and how those interactions influence the dynamics of ecosystems.

How can there be so many similarities among organisms yet so many different plants, animals, and microorganisms? How does biodiversity affect humans?
Students will be expected to demonstrate understanding of the factors causing natural selection and the process of evolution of species over time. They demonstrate understanding of how multiple lines of evidence contribute to the strength of scientific theories of natural selection and evolution

SC.HS.6 Structure and Function

SC.HS.6.1 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.

SC.HS.6.1.a **Construct an explanation** based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells. Assessment does not include identification of specific cell or tissue types, whole body systems, specific protein structures and functions, or the biochemistry of protein synthesis.

NE agricultural practices

SC.HS.6.1.b **Develop and use a model** to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. Assessment does not include interactions and functions at the molecular or chemical reaction level.

SC.HS.6.1.c **Plan and conduct an investigation** to provide evidence that feedback mechanisms maintain homeostasis. Assessment does not include the cellular processes involved in the feedback mechanism.

NE agricultural practices

SC.HS.6.1.d **Use a model** to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms. Assessment does not include specific gene control mechanisms or rote memorization of the steps of mitosis.

SC.HS.7 Interdependent Relationships in Ecosystems

SC.HS.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.

SC.HS.7.2.a **Use mathematical and/or computational representations to support explanations** of factors that affect carrying capacity of ecosystems at different scales. Assessment does not include deriving mathematical equations to make comparisons.

SC.HS.7.2.b **Use mathematical representations** to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. Assessment is limited to provided data.

SC.HS.7.2.c **Evaluate the claims, evidence, and reasoning** that the interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem.

NE river systems and ecosystems

SC.HS.7.2.d **Evaluate the evidence** for how group behavior has evolved because membership can increase the chances of survival for individuals and their genetic relatives.

SC.HS.7.2.e **Design, evaluate, and refine a solution** for increasing the positive impacts of human activities on the environment and biodiversity.

NE native species, conservation organizations, agriculture practices

SC.HS.7.2.f **Use a computer simulation** to model the impact of proposed solutions to a complex real-world problem with numerous criteria and constraints on interactions within and between systems relevant to the problem. Assessment is limited to testing solutions for a proposed problem related to threatened or endangered species, or to genetic variation of organisms for multiple species.

SC.HS.8 Matter and Energy in Organisms and Ecosystems

SC.HS.8.3 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems.

SC.HS.8.3.a **Use a model** to illustrate how photosynthesis transforms light energy into stored chemical energy. Assessment does not include specific biochemical steps.

SC.HS.8.3.b **Construct and revise an explanation** based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other molecules to form the four basic macromolecules. Assessment does not include the details of the specific chemical reactions or identification of macromolecules.

SC.HS.8.3.c **Use a model** to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules are broken and bonds in new compounds are formed resulting in a net transfer of energy. Assessment should not include identification of the steps or specific processes involved in cellular respiration.

SC.HS.8.3.d **Construct and revise an explanation** based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. Assessment does not include the specific chemical processes of either aerobic or anaerobic respiration.

NE ethanol production

SC.HS.8.3.e **Use mathematical representations** to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy.

NE agricultural practices

SC.HS.8.3.f **Develop a model** to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. Assessment does not include the specific chemical steps of photosynthesis and respiration.

SC.HS.9 Heredity: Inheritance and Variation of Traits

SC.HS.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.

SC.HS.9.4.a **Develop and use a model** to explain the relationships between the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring. Assessment does not include the phases of meiosis or the molecular mechanism of specific steps in the process.

NE agricultural practices

SC.HS.9.4.b **Make and defend a claim** based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. Assessment does not include the phases of meiosis or the molecular mechanism of specific steps in the process.

NE plants and animals

SC.HS.9.4.c **Apply concepts of statistics and probability** to explain the variation and distribution of expressed traits in a population. Assessment does not include Hardy-Weinberg calculations.

NE plants and animals

SC.HS.10 Biological Evolution

SC.HS.10.5 Gather, analyze, and communicate evidence of biological evolution.

SC.HS.10.5.a **Communicate scientific** information that common ancestry and biological evolution are supported by multiple lines of empirical evidence.

NE fossil record

SC.HS.10.5.b **Construct an explanation** based on evidence that natural selection primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. Assessment does not include other mechanisms of evolution, such as genetic drift, gene flow through migration, and co-evolution.

NE plants and animals

SC.HS.10.5.c **Apply concepts of statistics and probability** to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. Assessment is limited to basic statistical and graphical analysis. Assessment does not include allele frequency calculations.

NE plants and animals

SC.HS.10.5.d **Construct an explanation** based on evidence for how natural selection leads to adaptation of populations.

SC.HS.10.5.e **Evaluate the evidence** supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species.

NE plants and animals

HS EARTH AND SPACE SCIENCES

The earth and space science standards and indicators help students gather, analyze, and communicate evidence as they formulate answers to questions tailored to student interests and current topics that may include but are not limited to:

What is the universe and what goes on in stars? What are the predictable patterns caused by Earth's movement in the solar system?
Students examine the processes governing the formation, evolution, and workings of the solar system and universe in order to understand how matter in the universe formed and how short-term changes in the behavior of the sun directly affect humans. Engineering and technology play a large role here in obtaining and analyzing data that support theories of the formation of the solar system and universe.

How do people reconstruct and date events in Earth's planetary history? Why do the continents move?
Students can construct explanations for the scales of time over which Earth processes operate. An important aspect of the earth and space sciences involves making inferences about events in Earth's history based on a data record that is increasingly incomplete the farther one goes back in time.

How do the properties and movements of water shape Earth's surface and affect its systems?
Students develop models and explanations for the ways that feedbacks between different Earth systems control the appearance of Earth's surface. Central to this in the tension between internal systems, which are largely responsible for creating and at Earth's surface and the sun-driven surface systems that tear down land through weathering and erosion. Students understand the role water plays in affecting weather and understand chemical cycles in Earth's systems.

What regulates weather and climate?
Students understand the system interactions that control weather and climate. Students can understand the analysis and interpretation of different kinds of geoscience data allow student to construct explanations for the many factors that drive climate change over a wide range of timescales.

How do humans depend on Earth's resources? How do people model and predict the effects of human activities?
Students understand the complex and significant interdependencies between humans and the rest of Earth's systems through the impacts of natural hazards, our dependencies on natural resources, and the environmental impacts of human activities

SC.HS.11 Space Systems
SC.HS11.1. Gather, analyze, and communicate evidence to defend that the universe changes over time.



SC.HS.11.1.a **Use a model** based on evidence to illustrate how the stages of stars and the role of nuclear fusion in a star's core releases energy that reaches Earth in the form of radiation. Assessment does not include details of the atomic and sub-atomic processes involved with the sun's nuclear fusion.



SC.HS.11.1.b **Construct an explanation** of the Big Bang theory based on astronomical evidence of light spectra, motion of distant galaxies, and composition of matter in the universe.



SC.HS.11.1.c **Communicate scientific ideas** about the way stars, throughout their stellar stages, produce elements. Details of the many different nucleosynthesis pathways for stars of differing masses are not assessed.



SC.HS.11.1.d **Use mathematical or computational representations** to predict the motion of orbiting objects in the solar system. Mathematical representations for the gravitational attraction of bodies and Kepler's Laws of orbital motions should not deal with more than two bodies, nor involve calculus.

SC.HS.12 Weather and Climate

SC.HS.12.2 Gather, analyze, and communicate evidence to support that Earth's climate and weather are influenced by energy flow through Earth systems.

SC.HS.12.2.a **Construct an explanation based on evidence** for how the sun's energy moves among Earth's systems.

SC.HS.12.2.b **Use a model** to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate. Assessment of the results of changes in climate is limited to changes in surface temperatures, precipitation patterns, glacial ice volumes, sea levels, and biosphere distribution.

SC.HS.12.2.c **Analyze geoscience data** and the results from global climate models to make an evidence-based forecast of the current rate and scale of global or regional climate changes.

NE data

SC.HS.12.2.d **Evaluate the validity and reliability** of past and present models of Earth conditions to make projections of future climate trends and their impacts.

SC.HS.13 Earth's Systems

SC.HS.13.3 Gather, analyze, and communicate evidence to defend the position that Earth's systems are interconnected and impact one another.



SC.HS.13.3.a **Analyze geoscience data** to make the claim that one change to Earth's surface can create feedbacks that cause changes to other Earth systems.

NE geologic time scale and fossil record



SC.HS.13.3.b **Develop a model** based on evidence of Earth's interior to describe the cycling of matter.

SC.HS.13.3.c **Construct an argument based on evidence** to explain the multiple processes that cause Earth's plates to move.

SC.HS.13.3.d **Plan and conduct an investigation** of the properties of water and their effects on Earth materials, surface processes, and groundwater systems.

NE water systems

SC.HS.13.3.e **Develop a quantitative model** to describe the cycling of carbon and other nutrients among the hydrosphere, atmosphere, geosphere, and biosphere, today and in the geological past.

SC.HS.14 History of Earth

SC.HS.14.4 Gather, analyze, and communicate evidence to interpret Earth's history.

SC.HS.14.4.a **Evaluate evidence** of the past and current movements of continental and oceanic crust and the theory of plate tectonics to explain the differences in age, structure, and composition of crustal and sedimentary rocks.

SC.HS.14.4.b **Apply scientific reasoning** and evidence from ancient Earth materials, meteorites, and other planetary surfaces to reconstruct Earth's formation and early history.

SC.HS.14.4.c **Develop a model** to illustrate how Earth's internal and surface processes operate over time to form, modify, and recycle continental and ocean floor features. Assessment does not include memorization of the details of the formation of specific geographic

features of Earth's surface.

NE water systems and surface processes

SC.HS.14.4.d **Construct an argument** based on evidence to validate coevolution of Earth's systems and life on Earth. Assessment does not include a comprehensive understanding of the mechanisms of how the biosphere interacts with all of Earth's other systems.

SC.HS.15 Sustainability

SC.HS.15.5 Gather, analyze, and communicate evidence to describe the interactions between society, environment, and economy.

SC.HS.15.5.a **Construct an explanation based on evidence** for how the availability of natural resources, occurrence of natural hazards, and changes in climate have influenced human activity.

NE historical events

SC.HS.15.5.b **Evaluate competing design solutions** for developing, managing, and utilizing energy and mineral resources based on cost-benefit ratios.

SC.HS.15.5.c **Use a computational simulation** to illustrate the relationships among management of natural resources, the sustainability of human populations, and biodiversity. Assessment is limited to using provided multi-parameter programs or constructing simplified spreadsheet calculations.

NE resource management

SC.HS.15.5.d **Evaluate or refine a technological solution** that increases positive impacts of human activities on natural systems.

SC.HS.15.5.e **Evaluate a solution to a complex real-world problem** based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts.

SC.HS.15.5.f **Use a computational representation** to illustrate the relationships among Earth systems and the degree to which those relationships are being modified due to human activity. Assessment does not include running computational representations but is limited to using the published results of scientific computational models.

PLUS STANDARDS (OPTIONAL)

The High School Plus (HSP) standards represent advanced science topics designed to enhance the rigor of general science curricula or supplement additional advanced science courses. The standards were developed using postsecondary syllabi from entry level science courses for science majors (e.g. UNL LIFE 120, CHEM 109). Introducing the content to high school students will scaffold their learning providing a bridge between high school science coursework and postsecondary level coursework.

PHYSICS

SC.HSP.1 Forces, Interactions, and Motion

SC.HSP.1.1 Gather, analyze, and communicate evidence of forces, interactions, and motion.

SC.HSP.1.1.a **Generate and interpret mathematical and graphical representations** to describe the relationships between position, velocity, acceleration and time. Examples of data could include tables or graphs of position or velocity as a function of time for objects subject to no acceleration and objects undergoing a constant acceleration, including projectile motion, free fall, and circular motion. Examples should also include both average and instantaneous velocities. Assessment is limited to one and two-dimensional motion and to objects moving at non-relativistic speeds.

SC.HSP.1.1.b **Use mathematical and pictorial models** as applied to Newton's second law of motion describing the relationship among the net force on a macroscopic object, its mass, and its acceleration. Examples include drawing and using free body diagrams to analyze the net force on the object and the resulting motion; vectors including decomposition and recomposition, addition and subtraction. Assessment is limited to two-dimensional motion.

SC.HSP.1.1.c **Use mathematical representations** of momentum to predict the outcome of a collision. Emphasis is on the quantitative conservation of momentum in interactions and the qualitative meaning of this principle. **Assessment is limited to quantitative analysis of systems of two macroscopic bodies moving in one-dimension and qualitative analysis of multiple macroscopic bodies moving in two or three-dimensions.**

SC.HSP.1.1.d **Apply scientific and engineering ideas** to design, evaluate, and refine a device that minimizes the force on a macroscopic object during a collision. Examples of evaluation and refinement could include determining the success of the device at protecting an object from damage and modifying the design to improve it by applying the impulse-momentum theorem. Examples of a device could include a football helmet or an airbag. **Assessment is limited to qualitative evaluations and/or algebraic manipulations.**

SC.HSP.1.1.e **Use mathematical representations** of Newton's Law of Gravitation and Coulomb's Law to describe and predict the gravitational and electrostatic forces between objects. Emphasis is on both quantitative and conceptual descriptions of forces from gravitational and electric sources. **Assessment can be expanded to systems with multiple objects.**

SC.HSP.2 Waves, Electromagnetic Radiation, and Optics

SC.HSP.2.2 Gather, analyze, and communicate evidence of the interactions of waves and optics.

SC.HSP.2.2.a **Use mathematical representations** to describe the relationships among the frequency, wavelength, and speed of waves traveling in various media. Examples of data could include electromagnetic radiation traveling in a vacuum and glass, sound waves traveling through air and water, and seismic waves traveling through the Earth. Examples also include descriptive changes in observed frequency based on relative motion of observer or source (Doppler effect). **Assessment is limited to algebraic relationships and describing those relationships qualitatively.**

SC.P.2.2.b **Develop and use models** to predict interactions of longitudinal and transverse waves in various media. Examples could include P, S and Surface seismic waves, water waves, and waves on a spring. Emphasis is on structure and function of waves.

SC.HSP.2.2.c **Develop and use models** to describe the behavior of light at the boundary of various media. Emphasis is on both geometric (ray diagrams) and algebraic models (mirror and thin lens equation, Snell's Law).

SC.HSP.2.2.d **Evaluate the claims, evidence, and reasoning** behind the idea that electromagnetic radiation can be described either by a wave model or a particle model, and that for some situations one model is more useful than

the other. Emphasis is on how the experimental evidence supports the claim and how a theory is generally modified in light of new evidence. Examples of a phenomenon could include resonance, interference, diffraction, photoelectric effect and the idea that photons associated with different frequencies of light have different energies. **Assessment includes qualitative and quantitative models of light.**



SC.HSP.2.2.e **Use evidence to support explanations** for causes of emission and absorption spectra of electromagnetic radiation. Emphasis is on the idea that photons associated with different frequencies of light have different energies. This could include the displacement and broadening of spectral lines (redshift and blueshift). Examples could include different elements absorb or emit specific frequencies of light. Assessment is limited to qualitative descriptions.



SC.HSP.2.2.f **Communicate technical information** about how some technological devices use the principles of wave behavior and wave interactions with matter to transmit and capture information and energy. Examples could include solar cells capturing light and converting it to electricity; medical imaging; communications technology; lasers. **Assessments are limited to qualitative information. Assessments do not include band theory.**

SC.HSP.4 Energy: Physics

SC.HSP.4.3 Gather, analyze, and communicate evidence of the interactions of energy.



SC.HSP.4.3.a **Create a computational model** to calculate the change in the energy of one component in a system when the change in energy of the other component(s) and energy flows in and out of the system are known. Emphasis is on explaining the meaning of mathematical expressions used in the model including the Work-Energy theorem. **Assessment is limited to basic algebraic expressions or computations; to systems of two or three components; and to thermal energy, kinetic energy, and/or the energies in gravitational, magnetic, or electric fields.**



SC.HSP.4.3.b **Plan and conduct an investigation** to rate the power and efficiency used in performing work on a system. Emphasis is on the quantitative determination of power in interactions. Examples could include use of pulleys and electric motors.



SC.HSP.4.3.c **Design, build, and refine a device** that works within given constraints to convert one form of energy into another form of energy. Emphasis is on both qualitative and quantitative evaluations of devices. Examples of devices could include Rube Goldberg devices, wind turbines, solar cells, solar ovens, generators, heat engines and heat pumps. Examples of constraints could include use of renewable energy forms and efficiency. **Assessment for quantitative evaluations is limited to total output for a given input. Assessment is limited to devices constructed with materials provided to students.**



SC.HSP.4.3.d **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. Examples could include analysis of renewable energy systems for electricity generation and the effect of autonomous electric cars on the economy, society and the environment.



SC.HSP.4.3.e **Plan and conduct an investigation** to provide evidence for the transfer of thermal energy within a system based on the Laws of Thermodynamics. Emphasis is on analyzing data from student investigations and using mathematical thinking to describe the energy changes both quantitatively and conceptually, such as changes in entropy of a system. Examples of investigations could include mixing liquids at different initial temperatures or adding objects at different temperatures to water, changes from kinetic to thermal energy, and heat engines and heat pumps. **Assessment is limited to investigations based on materials and tools provided to students.**



SC.HSP.4.3.f **Develop and use a model** of two objects interacting through gravitational, electric, or magnetic fields to illustrate the forces between objects and the changes in energy of the objects due to the interaction. Examples of models could include drawings, diagrams, and texts, such as drawings of what happens when two charges of opposite polarity are near each other. **Assessment is limited to systems containing two objects.**

SC.HSP.16 Electricity and Magnetism

SC.HSP.16.4 Gather, analyze, and communicate evidence of electricity and magnetism.



SC.HSP.16.4.a **Use mathematical representations** of field forces to describe and predict forces at a distance between objects. Emphasis is on both quantitative and conceptual descriptions of forces from gravitational and electric sources. **Assessment can be expanded to systems with multiple objects.**

SC.HSP.16.4.b **Use models** to visualize and describe gravitational, magnetic and electrical fields and predict resulting forces on nearby objects. Examples of fields include point charges, charged parallel plates/rings/spheres, and bar magnets. Also could include electromagnetic forces, such as the magnetic force acting on a moving charge. **Assessment is limited to descriptive analysis of the fields and the forces they produce.**

SC.HSP.16.4.c **Use mathematical representations** to provide evidence that describes and predicts relationships between power, current, voltage, and resistance. Emphasis is on insulators and conductors accounting for Ohm's Law, total resistance for combinations of resistors and P=IV.

SC.HSP.16.4.d **Evaluate competing design solutions** for construction and use of electrical consumer products accounting for a range of constraints, including cost, safety, reliability, and aesthetics as well as possible social, cultural, and environmental impacts. Examples could include efficiency of light bulbs (visible intensity vs. power) and thermal energy limits of wire.

SC.HSP.16.4.e **Obtain and communicate technical information** about how some technological devices use alternating current and others use direct current. Examples could include why public utilities use AC while many devices use DC and energy loss in transmission of electricity.

SC.HSP.16.4.f **Design a solution** to a problem using the fact that an electric current can produce a magnetic field and/or that a changing magnetic field can produce an electric current. Emphasis is on both quantitative and conceptual descriptions of electric and magnetic fields. Examples include designing a generator, motor or transformer. **Assessment is limited to systems with two objects.**

SC.HSP.16.4.g **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. Examples could include analysis of renewable energy systems for electricity generation and the effect of autonomous electric cars on the economy, society and the environment.

CHEMISTRY

SC.HSP.3 Structure and Properties of Matter

SC.HSP.3.1 Gather, analyze, and communicate evidence of the structure, properties, and interactions of matter.

SC.HSP.3.1.a **Use the periodic table as a model** to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms. Assessment does not include quantitative understanding of ionization energy beyond relative trends.

SC.HSP.3.1.b **Plan and conduct an investigation** to gather evidence to compare the structure of substances at the macro scale to infer the strength of electrical forces between particles. Examples of intramolecular forces include bond type, polarity of bonds and, resonance structures. Examples of intermolecular forces include hydrogen bonds, dipole-dipole. **Assessment does not include Raoult's law calculations of vapor pressure.**

SC.HSP.3.1.c **Develop and use models** to predict and explain forces that are in and between molecules. Examples of intramolecular forces include bond type, polarity of bonds and, resonance structures. Examples of intermolecular forces include hydrogen bonds, dipole-dipole.

SC.HSP.3.3.d **Evaluate a solution** to a complex, real-world problem based on prioritized criteria and tradeoffs that account for a range of constraints, including cost, safety, reliability, and aesthetics, as well as possible social, cultural, and environmental impacts. Examples could include the effects of concentration of solutions on the freezing/boiling point (melting of ice on roadways), aspartame and caffeine in beverages, fluoride in drinking water.

SC.HSP.3.3.e **Develop models** to illustrate the changes in the composition of the nucleus of the atom and the energy released during the processes of fission, fusion, and radioactive decay. **Assessment is limited to alpha, beta, and gamma radioactive decays.**

SC.HSP.3.3.f **Develop and use models** to describe and predict mechanisms of the quantum mechanical model of the atom. Examples of representation include Aufbau Diagram, Hund's Rule, Pauli Exclusion, and orbital shapes, Hybridization of orbitals, and electron configuration. (This is an upper-level course indicator. It is not recommended for all students.)

SC.HSP.3.3.g **Evaluate the evidence** supporting claims about how atoms absorb and emit energy in the form of electromagnetic radiation. Examples include using mathematical relationships to demonstrate the relationship between observed light spectrum, wavelength of light and emission spectrum. (This is an upper-level course indicator. It is not recommended for all students.)

SC.HSP.3.3.h **Use mathematical representations** to quantify matter through the analysis of patterns in chemical compounds at different scales. Emphasis is on the mole concept, empirical formula, molecular formula, percent composition, and law of constant composition. (This is an upper-level course indicator. It is not recommended for all students.)

SC.HSP.4 Energy: Chemistry

SC.HSP.4.2 Gather, analyze, and communicate evidence of the interactions of energy.

SC.HSP.4.2.a **Use statistical and mathematical techniques** to describe qualitative and quantitative thermodynamic relationships. Thermodynamic relationships may include: Enthalpy, Hess's Law, Heats of Formation. Examples of data displays or graphs could include energy diagrams to communicate bond energies of products or reactants. Lab investigations may include calorimetry. (This is an upper-level course indicator. It is not recommended for all students.)

SC.HSP.4.2.b **Plan and conduct an investigation** to gather evidence of how the Kinetic Molecular Theory and gas laws are related. Examples include Dalton's Law of particle pressures, Graham's Law of Diffusion and Effusion, and empirical gas laws. (This is an upper-level course indicator. It is not recommended for all students.)

SC.HSP.4.2.c **Analyze and interpret data** to explain changes in energy within a system and/or energy flows in and out of

a system. Emphasis is on the use of mathematical expressions to describe the change in energy within the system. Investigations could include electrochemistry (electrolysis). (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.4.2.d **Analyze a major global challenge** to specify qualitative and quantitative criteria and constraints for solutions that account for societal needs and wants. Examples could include alternative energies, carbon footprint, and crude oil refining process.

SC.HSP.5 Chemical Reactions

SC.HSP.5.3 Gather, analyze, and communicate evidence of chemical reactions.



SC.HSP.5.3.a **Plan and conduct an investigation** to generate evidence that answers scientific questions related to changes in solution chemistry. Examples include titrations, solubility, and Le Chatelier's Principle (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.b **Use a model** to identify electron transfer and balance a redox reaction. Emphasis would be on using half reaction method for balancing equations and understanding electron transfer. Examples include electrochemical cells and electroplating. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.c **Use mathematical and/or computational representations** to predict and explain relationships within chemical systems. Examples include stoichiometric calculations, gas stoichiometry, limiting reactant, empirical formula/molecular formula calculations, % comp % yield. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.d **Use mathematical representations** to analyze the proportion and quantity of particles in solution. Emphasis is on molarity and developing net ionic equations. (This is an upper-level course indicator. It is not recommended for all students.)



SC.HSP.5.3.e **Plan and conduct an investigation** to predict the outcome of a chemical reaction based on patterns of chemical properties. Examples of reaction types could include single replacement, double replacement, etc. Examples of patterns could include the use of solubility rules, activity series. (This is an upper-level course indicator. It is not recommended for all students.).



SC.HS.5.3.f **Construct and revise an explanation** for the outcome of a simple chemical reaction based on the outermost electron states of atoms, trends in the periodic table, and knowledge of the patterns of chemical properties.

BIOLOGY

SC.HSP.6 Structure and Function

SC.HSP.6.1 Gather, analyze, and communicate evidence of the relationship between structure and function in living things.



SC.HSP.6.1.a **Construct an explanation** based on evidence for how the sequence of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells.



SC.HSP.6.1.b **Develop and use a model** to illustrate the hierarchical organization of interacting systems that provide specific functions within multicellular organisms. Emphasis is on functions at the organism system level such as nutrient uptake, water delivery, and organism movement in response to neural stimuli. An example of an interacting system could be an artery depending on the proper function of elastic tissue and smooth muscle to regulate and deliver the proper amount of blood within the circulatory system. **Assessment does not include interactions and functions at the molecular level.**



SC.HSP.6.1.c **Plan and conduct an investigation** to provide evidence that feedback mechanisms maintain homeostasis. Examples of investigations could include heart rate response to exercise, stomate response to moisture and temperature, and root development in response to water levels.



SC.HSP.6.1.d **Use a model** to illustrate the role of cells in producing signals which maintain cellular function within organisms. Emphasis is on conceptual understanding of the types of cell signals, signal reception, signal transduction, and types of cellular responses.



SC.HSP.6.1.e **Construct an explanation** based on evidence that plants have structures that function to support survival, growth, behavior, and reproduction. Emphasis is on plant structure, growth, and development, nutrient uptake and transport, plant reproduction, and plant responses to internal and external stimuli.



SC.HSP.6.1.f **Construct an explanation** based on evidence that animals have structures that function to support survival, growth, behavior, and reproduction. Emphasis is on the basic principles of animal form and functions. Examples of basic principles could include animal nutrition, circulation, gas exchange, immunity, osmoregulation and excretion, hormonal and endocrine control, reproduction, development, neural control systems, and animal behavior.



SC.HSP.6.1.g **Use a model** to illustrate the role of cellular division (mitosis) and differentiation in producing and maintaining complex organisms.

SC.HSP.7 Interdependent Relationships in Ecosystems

SC.HSP.7.2 Gather, analyze, and communicate evidence of interdependent relationships in ecosystems.



SC.HSP.7.2.a **Use mathematical and/or computational representations** to support explanations of factors that affect carrying capacity of ecosystems at different scales. Emphasis is on quantitative analysis and comparison of the relationships among interdependent factors including boundaries, resources, climate and competition. Examples of mathematical comparisons could include graphs, charts, histograms, and population changes gathered from simulations or historical data sets. **Assessment does not include deriving mathematical equations to make comparisons.**



SC.HSP.7.2.b **Use mathematical representations** to support and revise explanations based on evidence about factors affecting biodiversity and populations in ecosystems of different scales. Examples of mathematical representations include finding the average, determining trends, and using graphical comparisons of multiple sets of data. Assessment is limited to provided data.



SC.HSP.7.2.c **Evaluate the claims, evidence, and reasoning** related to the principle that complex interactions in ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in a new ecosystem. Examples of changes in ecosystem conditions could include modest biological or physical changes, such as moderate hunting or a seasonal flood; and extreme changes, such as volcanic eruption or sea level rise.



SC.HSP.7.2.d **Design, evaluate, and refine a solution** for increasing the positive impacts of human activities on the

environment and biodiversity. Examples of human activities can include habitat development and restoration, supporting native pollinators, reducing consumption, rotating crops, using integrated pest management.

SC.HSP.7.2.e **Create or revise a solution** to mitigate the impacts of human activity on biodiversity. Emphasis is on testing solutions for a proposed problem related to threatened or endangered species, or to genetic variation of organisms for multiple species.

SC.HSP.7.2.f **Evaluate evidence** for the role of behavior on individual and species' chances to survive and reproduce. Emphasis is on: (1) distinguishing between group and individual behavior, (2) identifying evidence supporting the outcomes of group behavior, and (3) developing logical and reasonable arguments based on evidence. Examples of behaviors could include fixed action patterns, imprinting, kinesis, taxis, hibernation, estivation, habituation, spatial learning, associative learning, cognition, foraging behavior, agonistic behavior, altruism, social learning, flocking, schooling, herding, and cooperative behaviors such as hunting, migrating, and swarming.

SC.HSP.8 Matter and Energy in Organisms and Ecosystems

SC.HSP.8.3 Gather, analyze, and communicate evidence of the flow of energy and cycling of matter in organisms and ecosystems.

SC.HSP.8.3.a **Use a model** to illustrate how photosynthesis transforms light energy into stored chemical energy. Emphasis is on illustrating inputs and outputs of matter and the transfer and transformation of energy in photosynthesis by plants and other photosynthesizing organisms. Examples of models could include diagrams, chemical equations, and conceptual models.

SC.HSP.8.3.b **Construct and revise an explanation** based on evidence for how carbon, hydrogen, and oxygen from sugar molecules may combine with other molecules to form amino acids and/or other large carbon-based molecules. Emphasis is on using evidence from models and simulations to support explanations.

SC.HSP.8.3.c **Use a model** to illustrate that cellular respiration is a chemical process whereby the bonds of food molecules and oxygen molecules are broken and the bonds in new compounds are formed resulting in a net transfer of energy. Emphasis is on the conceptual understanding of the steps or specific processes involved in cellular respiration.

SC.HSP.8.3.d **Construct and revise an explanation** based on evidence for the cycling of matter and flow of energy in aerobic and anaerobic conditions. Emphasis is on conceptual understanding of the role of metabolism in different environments.

SC.HSP.8.3.e **Use mathematical representations** to support claims for the cycling of matter and flow of energy among organisms in an ecosystem. Emphasis is on using a mathematical model of stored energy in biomass to describe the transfer of energy from one trophic level to another and that matter and energy are conserved as matter cycles and energy flows through ecosystems. Emphasis is on atoms and molecules such as carbon, oxygen, hydrogen and nitrogen being conserved as they move through an ecosystem. **Assessment is limited to proportional reasoning to describe the cycling of matter and flow of energy.**

SC.HSP.8.3.f **Develop a model** to illustrate the role of photosynthesis and cellular respiration in the cycling of carbon among the biosphere, atmosphere, hydrosphere, and geosphere. Examples of models could include simulations and mathematical models.

SC.HSP.8.3.g **Use models** to illustrate how atomic structure and bonding impact the properties of water and their influence on biological systems. Emphasis is on atomic structure, types of chemical bonds, and properties of water and how those properties influence organisms and ecosystems.

SC.HSP.8.3.h **Construct an explanation** based on evidence for how ATP powers cellular work and for how enzymes affect the rate of and the amount of energy needed for metabolic reactions. Emphasis is on the structure of ATP and how ATP is used to power cellular work by coupling exergonic and endergonic reactions. Emphasis is on how enzymes speed up and/or lower the activation energy needed for metabolic reactions and how the regulation of enzyme activity helps control metabolism.

SC.HSP.9 Inheritance and Variation of Traits

SC.HSP.9.4 Gather, analyze, and communicate evidence of the inheritance and variation of traits.

SC.HSP.9.4.a **Ask questions** to clarify relationships about the role of DNA and chromosomes in coding the instructions for characteristic traits passed from parents to offspring.

SC.HSP.9.4.b **Make and defend a claim** based on evidence that inheritable genetic variations may result from: (1) new genetic combinations through meiosis, (2) viable errors occurring during replication, and/or (3) mutations caused by environmental factors. Emphasis is on using data to support arguments for the way variation occurs.

SC.HSP.9.4.c **Apply concepts of statistics and probability** to explain the variation and distribution of expressed traits in a population. Emphasis is on the use of mathematics to describe the probability of traits as it relates to genetic and environmental factors in the expression of traits (examples could include Hardy-Weinberg calculations and chi-square calculations.

SC.HSP.9.4.d **Evaluate evidence** supporting claims that gene regulation can explain the variation and distribution of expressed traits in a population. Emphasis is on the differences in gene expression of multi-cellular organisms, leading to different cell types within organisms and the distribution of traits in a population.

SC.HSP.9.4.e **Construct an explanation** based on evidence for the role of biotechnology in the research and understanding of biological systems. Emphasis is on the evolution of genomes, how biotechnology allows researchers to study the sequence, expression, and function of genes, and the practical applications of biotechnology.

SC.HSP.10 Biological Evolution

SC.HSP.10.5 Gather, analyze, and communicate evidence of biological evolution.

SC.HSP.10.5.a **Communicate scientific information** that common ancestry and biological evolution are supported by multiple lines of empirical evidence. Emphasis is on a conceptual understanding of the role each line of evidence has relating to common ancestry and biological evolution. Examples of evidence could include similarities in DNA sequences, anatomical structures, and order of appearance of structures in embryological development.

SC.HSP.10.5.b **Construct an explanation** based on evidence that the process of evolution primarily results from four factors: (1) the potential for a species to increase in number, (2) the heritable genetic variation of individuals in a species due to mutation and sexual reproduction, (3) competition for limited resources, and (4) the proliferation of those organisms that are better able to survive and reproduce in the environment. Emphasis is on using evidence to explain the influence each of the four factors has on number of organisms, behaviors, morphology, or physiology in terms of ability to compete for limited resources and subsequent survival of individuals and adaptation of species. Examples of evidence could include mathematical models such as simple distribution graphs and proportional reasoning.

SC.HSP.10.5.c **Apply concepts of statistics and probability** to support explanations that organisms with an advantageous heritable trait tend to increase in proportion to organisms lacking this trait. Emphasis is on analyzing shifts in numerical distribution of traits and using these shifts as evidence to support explanations. Examples of basic statistical and graphical analysis could include allele frequency calculations.

SC.HSP.10.5.d **Construct an explanation** based on evidence for how natural selection leads to adaptation of populations. Emphasis is on using data to provide evidence for how specific biotic and abiotic differences in ecosystems (such as ranges of seasonal temperature, long-term climate change, acidity, light, geographic barriers, or evolution of other organisms) contribute to a change in gene frequency over time, leading to adaptation of populations.

SC.HSP.10.5.e **Evaluate evidence** supporting claims that changes in environmental conditions may result in: (1) increases in the number of individuals of some species, (2) the emergence of new species over time, and (3) the extinction of other species. Emphasis is on determining cause and effect relationships for how changes to the environment such as deforestation, fishing, application of fertilizers, drought, flood, and the rate of change of the environment affect distribution or disappearance of traits in species.

SC.HSP.10.5.f **Develop and use models** to illustrate patterns in the evolutionary history of biological diversity. Emphasis is on how the structure and function of bacteria, archaea, protists, fungi, plants, and animals are used in are related in the tree of life.

ANATOMY AND PHYSIOLOGY

SC.HSP.6 Structure and Function: Anatomy & Physiology

SC.HSP.6.2 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *integumentary system*.


SC.HSP.6.2.a **Plan and conduct and investigation** to identify patterns of organization in the integumentary system. Information could be gathered from dissections, models, simulations, and scientific texts.


SC.HSP.6.2.b **Ask questions** to clarify the role of various structures in integumentary system function.


SC.HSP.6.2.c **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the integumentary system.


SC.HSP.6.2.d **Plan and conduct an investigation to gather evidence** that feedback mechanisms in the integumentary system help maintain homeostasis.


SC.HSP.6.2.e **Engage in arguments from evidence** for the role of cell division in integumentary system dysfunction.

SC.HSP.6.3 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *skeletal system*.


SC.HSP.6.3.a **Plan and conduct an investigation** to identify patterns of organization in the skeletal system. Information could be gathered from dissections, models, simulations, and scientific texts.


SC.HSP.6.3.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the skeletal system.


SC.HSP.6.3.c **Obtain, evaluate, and communicate evidence** that feedback mechanisms in the skeletal system help maintain homeostasis.


SC.HSP.6.3.d **Develop and use a model** to explain the order of events necessary for bone formation.


SC.HSP.6.3.e **Engage in arguments from evidence** to support claims about the causes of dysfunction in the skeletal system. Evidence could include data obtained from case studies.

SC.HSP.6.4 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *muscular system*.


SC.HSP.6.4.a **Plan and conduct an investigation** to identify patterns of organization in the muscular system. Information could be gathered from dissections, models, simulations, and scientific texts.


SC.HSP.6.4.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the muscular system.


SC.HSP.6.4.c **Engage in arguments from evidence** that muscle contraction is the result of biochemical reactions.


SC.HSP.6.4.d **Obtain, evaluate, and communicate evidence** that feedback mechanisms in the muscular system help maintain homeostasis.


SC.HSP.6.4.e **Engage in arguments from evidence** to support claims about the causes of dysfunction in the muscular system. Evidence could include data obtained from case studies.

SC.HSP.6.5 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *nervous system*.


SC.HSP.6.5.a **Plan and conduct an investigation** to identify patterns of organization in the nervous system. Information could be gathered from dissections, models, simulations, and scientific texts.


SC.HSP.6.5.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the nervous system.


SC.HSP.6.5.c **Engage in arguments from evidence** that production of a nerve impulse is the result of biochemical reactions.


SC.HSP.6.5.d **Obtain, evaluate, and communicate evidence** that feedback mechanisms in the nervous system help maintain homeostasis.


SC.HSP.6.5.e **Engage in arguments from evidence** to support claims about the causes of dysfunction in the nervous system. Evidence could include data obtained from case studies.

SC.HSP.6.6 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *cardiovascular/respiratory systems*.


SC.HSP.6.6.a **Plan and conduct an investigation** to identify patterns of organization in the cardiovascular/respiratory systems. Information could be gathered from dissections, models, simulations, and scientific texts.


SC.HSP.6.6.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the cardiovascular/respiratory systems.


SC.HSP.6.6.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the cardiovascular/respiratory systems help maintain homeostasis.


SC.HSP.6.6.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the cardiovascular/respiratory systems. Evidence could include data obtained from case studies.

SC.HSP.6.7 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *digestive system*.


SC.HSP.6.7.a **Plan and conduct an investigation** to identify patterns of organization in the digestive system. Information could be gathered from dissections, models, simulations, and scientific texts.


SC.HSP.6.7.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the digestive system.


SC.HSP.6.7.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the digestive system help maintain homeostasis.


SC.HSP.6.7.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the digestive system. Evidence could include data obtained from case studies.

SC.HSP.6.8 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *urinary system*.

SC.HSP.6.8.a **Plan and conduct an investigation** to identify patterns of organization in the urinary system. Information could be gathered from dissections, models, simulations, and scientific texts.

SC.HSP.6.8.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the urinary system.

SC.HSP.6.8.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the urinary system help maintain homeostasis.

SC.HSP.6.8.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the urinary system. Evidence could include data obtained from case studies.

SC.HSP.6.9 Gather, analyze, and communicate evidence of the relationship between the structures and physiological processes of the *reproductive system*.

SC.HSP.6.9.a **Plan and conduct an investigation** to identify patterns of organization in the reproductive system. Information could be gathered from dissections, models, simulations, and scientific texts.

SC.HSP.6.9.b **Develop and use a model** to identify and describe the relationship between the structures and physiological processes of the reproductive system. Include spermatogenesis, oogenesis, and menstruation.

SC.HSP.6.9.c **Obtain, evaluate and communicate evidence** that feedback mechanisms in the reproductive system help maintain homeostasis.

SC.HSP.6.9.d **Engage in arguments from evidence** to support claims about the causes of dysfunction in the reproductive system. Evidence could include data obtained from case studies.

SC.HSP.17 Engineering in Health Sciences

SC.HSP.17.1 Gather, analyze, and communicate evidence of the connection between health science careers and engineering.

SC.HSP.17.1.a **Obtain, evaluate, and communicate information** related to health science careers and the various roles they fulfill within the health care system. Examples include researcher, bio-medical engineer, medical professional, technician, manufacturer and distributor, administrator, and data storage and security professional.

SC.HSP.17.1.b **Design a solution** to a complex, real-world problem affecting body systems that can be solved through engineering. Solutions could include prosthetics, mobility enhancement, engineered body parts, treatment processes, and disease control.

SC.HSP.17.1.c **Evaluate a solution** to a complex, real-world human health problem based on prioritized criteria constraints that account for interactions within and between systems. Solutions could include the effects on the human body or solutions for environmental public health issues.

SC.HSP.18 Body Systems

SC.HSP.18.1 Gather, analyze, and communicate evidence of the connections between body systems.

SC.HSP.18.1.a **Construct and revise an explanation** based on evidence for the cycling of matter and flow of energy within and between body systems.

SC.HSP.18.1.b **Develop and use models** to explain the interactions between body systems. Emphasis should also include interactions with the endocrine system.

APPENDIX A: TOPIC PROGRESSION

TOPIC/GRADE	K	1	2	3	4	5	6	7	8	HS
1. Forces & Interactions	SC.K.1			SC.3.1					SC.8.1	SC.HS.1
2. Waves & Electro-magnetic Radiation		SC.1.2			SC.4.2				SC.8.2	SC.HS.2
3. Structure & Properties of Matter			SC.2.3			SC.5.3		SC.7.3		SC.HS.3
4. Energy					SC.4.4		SC.6.4		SC.8.4	SC.HS.4
5. Chemical Reactions								SC.7.5		SC.HS.5
6. Structure & Function		SC.1.6			SC.4.6		SC.6.6			SC.HS.6
7. Inter-dependent Relationships in Ecosystems	SC.K.7		SC.2.7	SC.3.7				SC.7.7		SC.HS.7
8. Matter & Energy in Organisms & Ecosystems						SC.5.8		SC.7.8		SC.HS.8
9. Heredity: Inheritance & Variation of Traits				SC.3.9			SC.6.9		SC.8.9	SC.HS.9
10. Biological Evolution									SC.8.10	SC.HS.10
11. Space Systems		SC.1.11				SC.5.11			SC.8.11	SC.HS.11
12. Weather & Climate	SC.K.12			SC.3.12			SC.6.12			SC.HS.12
13. Earth's Systems			SC.2.13		SC.4.13	SC.5.13	SC.6.13	SC.7.13		SC.HS.13
14. History of Earth								SC.7.14	SC.8.14	SC.HS.14
15. Sustainability										SC.HS.15

APPENDIX B: HS INTEGRATED SCIENCE COURSE MODEL

This appendix provides two examples of possible high school science course sequences. The first example outlines the NE Integrated Food, Energy, and Water Model, a series of interdisciplinary classes that blend Nebraska-specific contexts with global science issues. This example of standard bundles was developed in collaboration with University of Nebraska-Lincoln faculty. The second example presents course mapping of Disciplinary Core Ideas (DCIs) into a coherent sequence as outlined in A Framework for K-12 Science Education.

Course 1: Science Foundations seeks to lay a foundation for understanding the complexities of the biological and physical domains by deeply understanding the driving principles that allow matter to exist and function as it does in the universe. The topics in this course will be explored through the lens of the Nebraska Career Education Model.

Unit 1: Newtonian Forces	**Unit 2:** Gravity/ Electro-magnetism	**Unit 3:** Energy	**Unit 4:** Waves & Electromagnetic Radiation	**Unit 5:** Earth's Interior	**Unit 6:** Structure and Properties of Matter	**Unit 7:** Molecular Level Design	**Unit 8:** Space Exploration
HS.1.1.a **HS.1.1.b** **HS.1.1.c**	**HS.1.1.d** **HS.1.1.e** **HS.4.4.f**	**HS.4.4.a** **HS.4.4.b** **HS.4.4.c** **HS.15.4.b**	**HS.2.2.a** **HS.2.2.b** **HS.2.2.c** **HS.2.2.d** **HS.2.2.e**	**HS.13.3.b** **HS.13.3.c**	**HS.3.3.a** **HS.3.3.c**	**HS.3.3.b** **HS.3.3.d**	**HS.11.5.a** **HS.11.5.b** **HS.11.5.c** **HS.11.5.d**

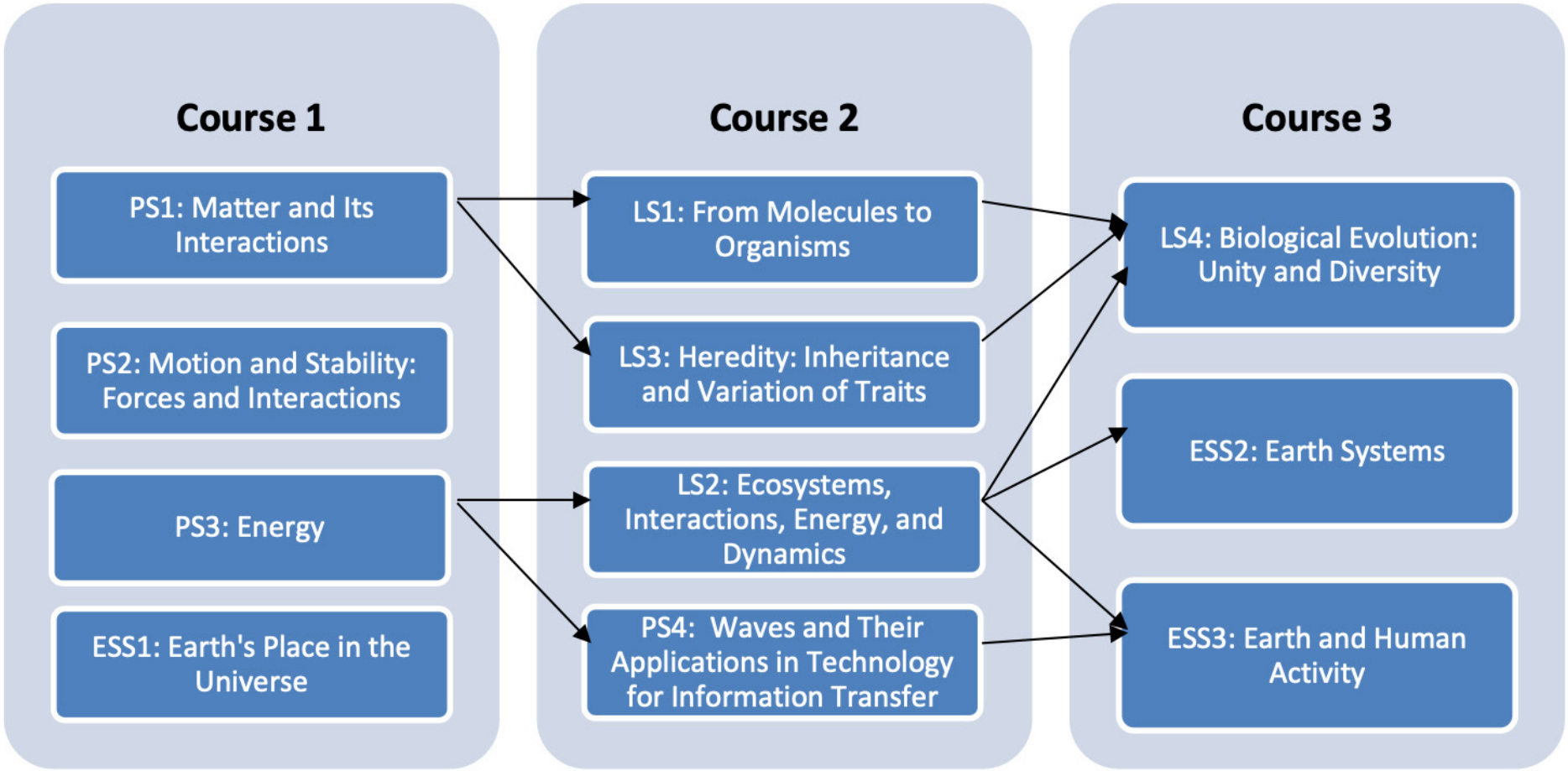
Course 2: Water in Society begins by expanding upon what was learned in Course 1 by taking a deeper look into matter and energy through the lens of water. It includes general chemistry concepts as they relate to water and life processes & systems. The course then focuses on how organisms and global systems maintain stability, transfer energy, and cycle matter. The final focus is on the sustainability of water.

Unit 1: Introduction to Water	**Unit 2:** Chemistry Between Life & Water	**Unit 3:** Small Systems Equilibrium	**Unit 4:** Systems: Energy in Balance	**Unit 5:** Movement of Matter in Global Systems	**Unit 6:** Sustainability of Water
SC.HS.13.3.d **SC.HS.5.5.a**	**SC.HS.8.3.a** **SC.HS.5.5.f** **SC.HS.8.3.b** **SC.HS.8.3.c** **SC.HS.5.5.b**	**SC.HS.8.3.e** **SC.HS.5.5.c** **SC.HS.5.5.d**	**SC.HS.6.1.c** **SC.HS.13.3.a** **SC.HS.4.4.e** **SC.HS.14.2.c** **SC.HS.12.1.b**	**SC.HS.13.3.e** **SC.HS.8.3.f**	**SC.HS.15.4.a** **SC.HS.12.1.c** **SC.HS.15.4.d**

Course 3: Land, Food, and People expands upon what was learned in both Course 1 and 2 taking a deeper dive into the coevolution of Earth systems and organisms. It is designed to introduce students to information, ideas, and concepts about the interactions of people, land and the demands for food. Students will investigate the history of the Earth, biological adaptation, heredity, and interdependent relationships in ecosystems. At the end of the course, students will be able to analyze, synthesize and communicate information about the dynamic relationships of land, food, and people from ethical, civic and stewardship perspectives and explain the impacts of human decisions on renewable and non-renewable resources.

Unit 1: Earth's History	**Unit 2:** Biological Evolution	**Unit 3:** Heredity: Inheritance & Variation	**Unit 4:** Structure & Function	**Unit 5:** Interdependent Relationships in Organisms	**Unit 6:** Sustainability
SC.HS.14.2.a **SC.HS.14.2.b** **HS.12.1.a** **HS.12.1.d** **SC.HS.14.2.d**	**SC.HS.10.5.a** **SC.HS.10.5.b** **SC.HS.10.5.c** **SC.HS.10.5.d** **SC.HS.10.5.e** **SC.HS.7.2.e**	**HS.9.4.a** **HS.9.4.b** **HS.9.4.c**	**HS.6.1.a** **HS.6.1.b** **HS.6.1.d**	**HS.7.2.a** **HS.7.2.b** **HS.7.2.c** **HS.8.3.d**	**HS.7.2.d** **HS.15.4.c** **HS.15.4.f** **HS.7.2.f**

NGSS Conceptual Progressions Model



NEBRASKA'S COLLEGE AND CAREER READY
STANDARDS FOR ENGLISH LANGUAGE ARTS



Approved by the Nebraska State Board of Education on September 2, 2021

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Table of Contents

Introduction……. **5**

Content Area Standards Overview…… **5**

Standards Design…… **6**

Kindergarten Standards…….**16**

Grade 1 Standards…….**25**

Grade 2 Standards…….**35**

Grade 3 Standards…….**44**

Grade 4 Standards…….**54**

Grade 5 Standards…….**64**

Grade 6 Standards…….**73**

Grade 7 Standards…….**81**

Grade 8 Standards…….**89**

Grades 9-10 Standards…… **98**

Grades 11-12 Standards…….**107**

Grades K-12 Vertical Progressions……**116**

Key Instructional Shifts for English Language Arts…….**157**

Introduction

The ability to use language for the pursuit of knowledge, for purposeful expression, and for active participation in civic life requires academic content standards that are clearly defined and increasingly rigorous across grade levels. The Nebraska English Language Arts standards encompass a wide range of essential skills in the areas of reading, writing, speaking, and listening. The standards, both individually and as an integrated whole, describe not only expectations for college, career, and civic readiness, but the 21st century literacies necessary for critical and innovative thinking and problem solving. The progression of skills within each strand are research and evidence-based and designed to prepare Nebraska's students for post-secondary and workforce demands.

Content Area Standards Overview

Nebraska Revised Statute 79-760.01 requires the State Board of Education to adopt measurable academic content standards for the areas of reading, writing, mathematics, science, and social studies. Standards describe grade-level expectations for given content areas and provide a framework upon which Nebraska districts develop, establish, and implement curriculum. For effective teaching and learning to occur, the content area standards should drive local decisions related to instructional materials, resources, and interim, formative, and summative assessments.

The Nebraska Department of Education has identified quality criteria in the development of content area standards. These criteria ensure that standards are grounded in a strong research base of human cognition, motivation, and teaching and learning and describe essential knowledge and skills for college, career, and civic readiness. The English Language Arts standards, written by teams of Nebraska educators and reviewed by literacy experts, were developed with the following of indicators of quality:

Measurable. Standards provide benchmarks against which student progress toward learning goals can be measured.
Appropriately challenging. Standards must build in complexity so that by the end of grade 12, students are prepared for postsecondary education and the workforce.
Connected. Student learning is most effective when it connects knowledge and skills to related topics and real-world applications.
Clearly worded. Content area standards must effectively communicate what students should know and be able to do.
Scaffolded. Indicators in the Nebraska content area standards scaffold student learning by sequencing connected knowledge and skills across grades so that students build and deepen understanding and ability over time.
Specific. Specificity assures that the language used in standards and indicators is sufficiently detailed to be accurately interpreted by educators.

English Language Arts Standards Design

Nebraska's English Language Arts Standards reflect the tiered structure common across all Nebraska content area standards. *Grade-level standards* include broad, overarching content-based statements that describe the basic cognitive or affective expectations of student learning. They also reflect, across all grade levels, the long-term goals for learning associated with college- and career-readiness. *Indicators* further describe what students must know and be able to do to meet the standard as well as provide guidance related to classroom instruction. In addition to standards and indicators, some of the Nebraska Standards for English Language Arts provide examples. The "e.g." statements, where appropriate, provide guidance relative to topics that may be included in a locally determined curriculum.

Nebraska's standards are organized with three levels of specificity:

- **K-12 Comprehensive Statements**—Identify broad, general statements that are not grade-level specific and cover big ideas in the English Language Arts (Foundations of Reading, Reading Prose and Poetry, Reading Informational Text, Vocabulary, Writing, and Speaking and Listening).
- **Grade-Level Expectations**—Statements that identify what students should know and be able to do by the end of each identified grade/band. These statements are found within the categories of each strand, for example, Reading Prose and Poetry and Reading Informational Text strands are organized into four categories: *Central Ideas and Details, Author's Craft, Knowledge and Ideas*, and *Range of Reading and Level of Text Complexity*. Each of these categories includes a statement that describes the expectations for proficiency and remain consistent through grade levels.
- **Curricular Indicators**—Specific information to distinguish expectations between grade levels. They are considered an integral part of the standard to be taught.

Coding

The standards are organized using a coding system that includes the content area, grade level, an abbreviation for the strand, the category within the strand, and the number within the strand. Lowercase letters represent indicators for some of the standards. *Note—not all standards include indicators*.

Example: LA.K.F.1.a

LA= Content Area
K= Kindergarten
F= Foundations of Reading
1= Concepts of Print
a= Indicator

K-12 Comprehensive English Language Arts Standards

Strand	Comprehensive Standard
Foundations of Reading (F)	Students will develop and apply decoding and language comprehension skills and strategies to comprehend and learn from increasingly complex texts.
Reading Prose and Poetry (RP)	Students will learn and apply reading skills and strategies to comprehend grade-level literary texts.
Reading Informational Text (RI)	Students will learn and apply reading skills and strategies to comprehend grade-level informational texts.
Vocabulary (V)	Student will build and use conversational, academic, and discipline-specific, grade-level vocabulary.
Writing (W) and Foundations of Writing (FW)	Students will learn and apply writing skills and strategies to communicate effectively for a variety of purposes.
Speaking and Listening (SL)	Students will learn and apply speaking and listening skills and strategies to communicate effectively for a variety of audiences and purposes.

Spiraled, Vertical Progressions. The revised 2021 Nebraska English Language Arts Standards are formatted to support educators in both grade-level and vertical instructional planning. In addition to organization by grade level, the standards and indicators are formatted into spiraled, vertical articulations. This design demonstrates the interrelated nature of skills in the English Language Arts and their progression through the grade levels. The purpose of presenting the standards into vertical charts is to provide educators with a practical tool for the development of a locally-determined, standards-aligned curriculum.

For each standard in the areas of Foundations of Reading, Reading Prose and Poetry, Reading Informational Text, Writing*, Vocabulary, and Speaking and Listening, the standards and indicators are listed in a table format from the 11-12 grade band and ending at Kindergarten.

.

Text at the Center

The graphic below illustrates an integrated model of literacy. Although the standards are organized into the essential components of Foundations of Reading, Reading Comprehension, Writing, Vocabulary, and Speaking and Listening for conceptual clarity, the strands are closely interrelated. For example, students should engage in meaningful writing tasks in response to the complex texts they are reading. Likewise, many of the skills associated with research are applicable to both writing and speaking tasks. The hallmark of effective ELA instruction is in the English Language Arts is to demonstrate this interrelatedness through thoughtful planning in daily lessons and in the scope and sequence of knowledge and skills over the course of a year.



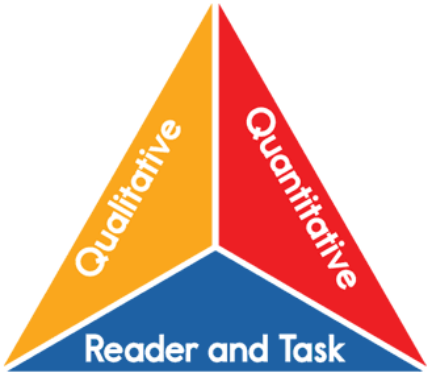
The 2021 revised College and Career Ready Standards for English Language Arts illustrate a text-centered approach to instruction. All students become proficient through deliberate practice. Practice means that students engage in an abundance of reading during the literacy block, both on- and off-grade-level, combined with thoughtful instruction so that all students have access to grade-level, complex texts. Students should have ample opportunity to express their understanding of meaning through discussion and writing. High-quality, grade-level complex texts can also provide the basis for instruction in other domains such as vocabulary acquisition and grammar, usage, and mechanics skills.

Students should spend significant time actively reading content-rich, complex text. Close reading of complex text is concentrated, demanding work that helps students discover how to learn from reading and grow their knowledge, vocabulary, and understanding of syntax.

Students should engage in a volume of reading to build knowledge and be exposed to academic language in all content areas. That volume of reading needs to be at a range of complexity levels so that every student can eventually read independently and proficiently. Much of this volume should be with information-rich text, either full-length books or conceptually connected shorter texts (groups of texts that cohere together to create a picture of a topic). A text-centered approach provides rich ELA/literacy classroom experiences and builds confident, joyful readers.

Why text complexity matters. Nearly half of American students graduating from high school will require some level of remediation to successfully read and understand the texts they will encounter as they enter college or the workforce. By the time many students complete their K-12 education, they are not able to meet the reading requirements they will face after graduation. An extensive body of research has emerged to explore the role of text complexity as it relates to students' ability to independently and proficiently comprehend the kinds of texts required in postsecondary work or their chosen career fields. A 2006 ACT study *Reading Between the Lines* examined student performance on reading comprehension measures to understand why some students performed below benchmark. The report indicated that the skills differentiating students who met the benchmark for reading proficiency from those who did not was their ability to answer correctly questions about more complex text.

The role of standards. The revised standards emphasize the range and complexity of texts that move students to proficiency as they progress through the grades. Below is the 3-part model for measuring the complexity of texts.



Qualitative measures. These include dimensions of text such as its purpose, levels of meaning, structure, conventions of language, and the knowledge demands they place upon the reader.

Quantitative measures. These measures refer to aspects of text complexity that can be objectively measured, for example, word length and frequency, sentence length, and text cohesion.

Reader and Task considerations. While quantitative and qualitative elements of complexity focus on the text itself, the *Reader and Task* dimension considers individual readers and variables such as their motivation, background knowledge, and the purpose and difficulty of the task associated with a given text. Assessments in this dimension rely on professional judgment and expertise of classroom teachers as they consider their students and the subject matter at hand.

Lexile ranges. Measures of text complexity must be aligned with college and career readiness expectations for all students. Qualitative scales of text complexity should be anchored at one end by descriptions of texts representative of those required in typical first-year, credit-bearing college courses and in workforce training programs. Similarly, quantitative measures should identify the college- and career-ready reading level as one endpoint of the scale. *Please see Appendix A for associated Lexile ranges by grade band.*

Distribution of literary and informational text types. The 2009 reading framework for the National Assessment of Educational Progress (NAEP) requires a high and increasing proportion of informational text on its assessments as students advance through the grades. The revised standards for English Language Arts are aligned to this framework so that all students are equipped to meet the text complexity demands of college and career readiness.

Grade	Literary	Informational
4	50%	50%
8	45%	55%
12	30%	70%

Source: National Assessment Governing Board. 2008.
Reading Framework for the 2009 National Assessment of Educational Progress.

Distribution of communicative purposes by grade in the 2011 NAEP Writing Framework. NAEP likewise outlines a distribution across the grades of the core purposes and types of student writing. The Framework recognizes these modes as mutually reinforcing writing capacities—writing to persuade, to explain, and to convey real or imagined experiences. A body of evidence related to the demands of college and career readiness requires shifting emphasis so that in grades 9-12, the overwhelming focus of writing is on arguments and informative/explanatory text types.

Grade	To Persuade	To Explain	To Convey Experience
4	30%	35%	35%
8	35%	35%	30%
12	40%	40%	20%

Source: National Assessment Governing Board. 2007.
Writing framework for the 2011 National Assessment of Educational Progress, pre-publication edition. Iowa City, IA: ACT, Inc.

Shared responsibility for literacy development. ELA teachers have a unique and specialized role in developing students' literacy skills, including systematic instruction of the foundations of reading and writing. But the comprehensive nature of the standards—reading, writing, language development, vocabulary acquisition, speaking and listening—and their applicability to student success in other content areas, requires that they be a shared responsibility within the school. An interdisciplinary approach to literacy assures students receive explicit instruction in reading and writing with a wide range of discipline-specific texts and tasks.

The Nebraska Instructional Materials Collaborative

Every Nebraska student deserves the opportunity to learn from high-quality, standards-aligned instructional materials to prepare for success in college, career, and civic life. While the revised standards lay out a roadmap for the acquisition of 21st century literacy skills, high-quality instructional materials, along with a well-crafted, locally determined curriculum, are essential to assuring students meet grade-level benchmarks.



The Nebraska Instructional Materials Collaborative promotes and advances equity by providing tools and resources so that all Nebraska students have access to high-quality materials. This includes learning the content outlined in Nebraska's college- and career-ready standards but also includes opportunities for students to discover and explore their passions within the context of postsecondary interests. Research demonstrates that English language learners, students with disabilities, low-income, and students of color are less likely to have access to high quality content or textbooks in the classroom. This inequity, in part, accounts for the significant achievement gap between these students and their peers. The NIMC is committed to help address this gap.

Developing a vision. As districts consider instructional materials, a key first step is establishing a district-wide vision for excellent literacy instruction in which all students have access to grade-appropriate assignments, strong instruction, deep engagement, and teachers with high expectations.

The implementation of high-quality instructional materials is a critical to assuring students have access to the grade-level texts, tasks, and instruction that will prepare them for future success. The Nebraska Instructional Materials Collaborative provides reviews of ELA materials based upon:

- the text quality and complexity and their alignment to standards with tasks grounded in evidence;
- the knowledge-building of texts, vocabulary, and tasks;
- and instructional supports and usability measures.

In addition to review tools, the NIMC provides an abundance of resources such as subject-specific guidance for navigating the selection and implementation process, supporting research, professional development resources, communication tools, archived webinars, upcoming events, FAQs, and a statewide map of HQIMs in use by Nebraska districts, To learn more please visit the Nebraska Instructional Materials Collaborative website.

Social Emotional Learning

Social and emotional learning (SEL) is the process through which children and adults understand and manage emotions, set and achieve positive goals, feel and show empathy for others, establish and maintain positive relationships, and make responsible decisions. Because SEL plays a critical role in learning and human development, the revised standards for English Language Arts recognize it as an integral part of rigorous and meaningful curriculum and instruction.

The CASEL Framework. The Collaborative for Academic, Social, and Emotional Learning (CASEL) is a widely used framework that identifies five core competencies:



Self-awareness: The ability to accurately recognize one's emotions and thoughts and their influence on behavior. This includes accurately assessing one's strengths and limitations and possessing a well-grounded sense of confidence and optimism.

Self-management: The ability to regulate one's emotions, thoughts, and behaviors effectively in different situations. This includes managing stress, controlling impulses, motivating oneself, and setting and working toward achieving personal and academic goals.

Social awareness: The ability to take the perspective of and empathize with others from diverse backgrounds and cultures, to understand social and ethical norms for behavior, and to recognize family, school, and community resources and supports.

Relationship skills: The ability to establish and maintain healthy and rewarding relationships with diverse individuals and groups. This includes communicating clearly, listening actively, cooperating, resisting inappropriate social pressure, negotiating conflict constructively, and seeking and offering help when needed.

Responsible decision-making: The ability to make constructive and respectful choices about personal behavior and social interactions based on consideration of ethical standards, safety concerns, social norms, the realistic evaluation of consequences of various actions, and the well-being of self and others.

Foundations of Reading

A sequence of explicit, systematic phonics instruction provides the foundation for literacy. Nebraska's 2021 College and Career Ready *Foundations of Reading* standards align with the body of research known as the science of reading. A systematic approach to the foundational skills—*Concepts of Print, Phonological Awareness*, *Phonics and Word Analysis*, and *Fluency*—supports emergent readers as they develop proficiency during the early years.

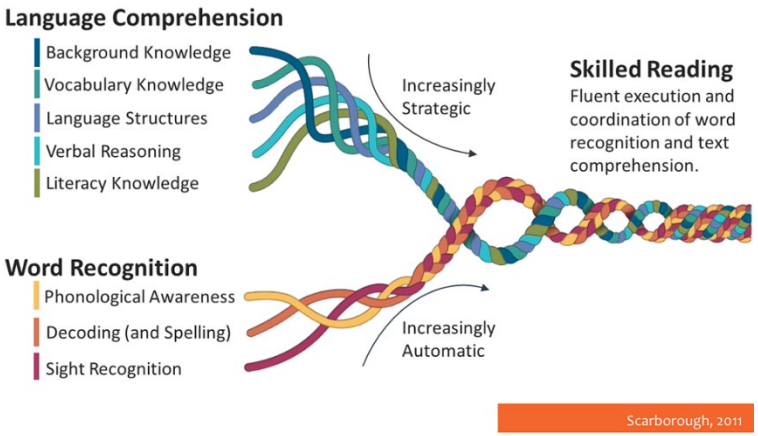
Concepts of print. Print concepts refers to the awareness of *how print works*. Examples include that print reads from left to right, that words are separated by spaces, and basic knowledge of the parts of a book.

Phonological awareness. Phonological or phonemic awareness is the ability to recognize and manipulate the sounds in spoken language. Young children begin developing phonological awareness by enjoying and reciting rhyming words and alliterative phrases from familiar stories, songs, or nursery rhymes.

Phonics and word analysis. The ability to match the sounds of spoken language with individual letters or groups of letters is known as *phonics*. Instruction focuses on common letter-sound correspondences, strategies for sounding out letters, and blending sounds into words. Word analysis instruction focuses on recognizing base words, prefixes, and suffixes in increasingly complex words.

Fluency. Fluency is the ability to read with speed, accuracy, and appropriate expression. As the ability to decode, or master letter-sound relationships, improves, so does a student's ability to read smoothly and clearly. Fluency is considered the "bridge" to reading comprehension; a student is considered a proficient reader when both fluency and reading comprehension are at grade level.

The graphic below, known as Scarborough's Rope, represents the complexities involved in learning to read and illustrates the interconnectedness of foundational reading skills. The Reading Rope is comprised of upper and lower "strands" related to language comprehension and word recognition. The elements of word recognition work together as a young reader develops automaticity with decoding and fluency with reading aloud. Language comprehension skills that include background knowledge, vocabulary, and knowledge of language structures, complement development in the lower strand. Over time, increasingly strategic instruction and opportunities for practice assure students grow into proficient readers.



The extent to which students master foundational skills determines their later ability to understand complex, grade-level texts in a variety of subject areas. While many students progress through learning targets naturally and with ease, as literacy expert and author Dr. Louisa Moats explains, "Teaching reading to a student who does not learn easily or naturally is a complex and challenging professional enterprise that requires deep knowledge of content of the cognitive and language factors that shape student learning, and of pedagogical detail."

The Nebraska State Board of Education supports and encourages systemic efforts to improve early literacy for all students, working to ensure that all students become successful readers and writers prepared for college, career, and civic life. To learn more about instructional resources, including for readers who struggle, please visit https://www.education.ne.gov/nebraskareads/.

Key Features of the Standards

Reading: Text complexity and the growth of comprehension. The Reading standards place equal emphasis on the sophistication of what students read and the skill with which they read. The standards are designed to demonstrate a grade-by-grade "staircase" of increasing text complexity that rises from beginning reading to the college and career readiness level. Whatever they are reading, students must also show a steadily growing ability to discern more from and make fuller use of text, including making an increasing number of connections among ideas and between texts, considering a wider range of textual evidence, and becoming more sensitive to inconsistencies, ambiguities, and poor reasoning in texts.

Writing: Text types, responding to reading, and research. The revised standards acknowledge the fact that whereas some writing skills, such as the ability to plan, revise, edit, and publish, are applicable to many types of writing, other skills are more properly defined in terms of specific writing types: arguments, informative/explanatory texts, and literary forms. The *Modes of Writing* standards and indicators convey the importance of the writing-reading connection by requiring students to draw upon and write about evidence from literary and informational texts. Because of the centrality of writing to most forms of inquiry, research standards are prominently included in this strand, though skills important to research are infused throughout this document.

Production of writing: Conventions, effective use, and vocabulary. The *Production of Writing* strand includes the many skills that comprise essential "rules" of standard written and spoken English, but they also approach language as a matter of craft and informed choice among alternatives. These standards and indicators also recognize the sentence as the building block of writing and build in sophistication as they progress through the grades. The V*ocabulary* standards complement the sequence of grammar, usage, and mechanics with their focus on understanding words and phrases, their relationships, and their nuances and on acquiring new vocabulary, particularly general academic and domain-specific words and phrases.

Speaking and Listening: Flexible communication and collaboration Including but not limited to skills necessary for formal presentations. The *Speaking and Listening* standards require students to develop a range of broadly useful oral communication and interpersonal skills. Students must learn to work together, express and listen carefully to ideas, integrate information from oral, visual, quantitative, and media sources, evaluate what they hear, use media and visual displays strategically to help achieve communicative purposes, and adapt speech to context and task.

Kindergarten Standards

Approved by the Nebraska State Board of Education on September 2, 2021

FOUNDATIONS OF READING

Concepts of Print | Demonstrate knowledge of the organization and basic concepts of print.
LA.K.F.1 Demonstrate knowledge of the organization and basic concepts of print.

a. Identify all upper and lowercase letters of the alphabet in isolation and in connected text.
b. Recognize that spoken words are represented in written language by specific sequences of letters, and that print carries meaning.
c. Demonstrate understanding that words are separated by spaces in print; demonstrate understanding of one-to-one correspondence between voice and print.
d. Demonstrate knowledge that print reads from left to right, top to bottom, and page by page.

Phonological Awareness | Demonstrate phonological awareness through oral activities.
LA.K.F.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).

a. Segment and count spoken sentences into words.
b. Recognize and begin to produce oral rhymes.
c. Count, produce, and segment spoken words into syllables and identify syllable parts.
d. Blend onsets and rimes to form simple words (e.g., v-an, gr-ab).
e. Delete part of a syllable within a spoken word including compound words (e.g., "Say 'parsnip.' Say it again but don't say 'par;' e.g., "Say 'cowboy.' Say it again but don't say 'cow'").
f. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in two- and three-phoneme (VC or CVC) words, excluding CVC words ending with /l/, /r/, or /x/.

Phonics and Word Analysis | Demonstrate phonetic and word analysis knowledge and apply decoding skills to isolated words and in connected text.
LA.K.F.3 Know and apply phonics and word analysis skills in decoding and encoding (spelling) words.

a. Demonstrate basic knowledge of one-to-one sound to letter correspondences by producing the primary or many of the most frequent sounds for each consonant.
b. Demonstrate the long and short sounds with common spellings (graphemes) for the five major vowels.
c. Decode consonant-vowel-consonant (CVC) words.
d. Encode consonant-vowel-consonant (CVC) words.
e. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

Fluency | Read grade-level texts with sufficient accuracy and fluency to support comprehension.
LA.K.F.3 Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level texts to support comprehension.

a. Recognize upper and lowercase letters automatically and accurately.
b. Read decodable consonant-vowel-consonant (CVC) words with automaticity and accuracy.
c. Read grade level high-frequency words with automaticity and accuracy (e.g. Fry or Dolch words or those included in instructional materials).

Instructional Considerations

- In recognizing and producing oral rhymes, students should indicate the location of the rhyme, i.e. at the end of a line of print.
- Students can demonstrate understanding of one-to-one correspondence between voice and print by pointing to each word in a sentence as it is read aloud.
- *Phonological awareness* refers to oral skills and to the syllable, onset-rime, and phoneme levels and does not involve print or letter knowledge.
- Many high-frequency words at the primary grade levels are either irregularly spelled or temporarily irregular, thus students have not yet learned the phonics rule that would enable them to decode the word. Those words that are decodable should be introduced to students using appropriate phonics rules. High-frequency words should be introduced utilizing the regular sound-spelling patterns found within the word, not only as words to be memorized.
- *Reading fluency* refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text. "Fluency is manifested in accurate, rapid, expressive oral reading and is applied during, and makes possible, silent reading comprehension," (Pikulski & Chard, 2005).

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary texts.
LA.K.RP.1 With prompting and support, orally retell familiar stories, including key details, and demonstrate understanding of their central message or lesson.
LA.K.RP.2 With prompting and support, identify main character(s), setting, and important events in a literary text.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.K.RP.3 With prompting and support, define the role of author and illustrator in a literary text.
LA.K.RP.4 With prompting and support, identify the basic characteristics of literary text.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.K.RP.5 With prompting and support, compare and contrast the experiences of characters in familiar stories.
LA.K.RP.6 With prompting and support, ask and answer questions about key details in a literary text.
LA.K.RP.7 With prompting and support, make connections between own experiences and other cultures in literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary texts independently and proficiently.
LA.K.RP.8 Actively engage in group reading activities with purpose and understanding.

Instructional Considerations

- Making predictions and drawing conclusions, known as *forward inferencing*, occur when readers draw from textual information provided up to that point in the text; confirming predictions using textual evidence is a necessary step after making predictions about a topic or events.
- At this grade level, descriptions should be both oral and written as students respond to questions or engage in discussion.
- In describing settings or characters, students should explain what in the text the descriptions are based upon.
- Students should be made aware that not all narratives contain a central message or lesson.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.

Approved by the Nebraska State Board of Education on September 2, 2021

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational texts.
LA.K.RI.1 With prompting and support, identify the main topic and key details in an informational text.
LA.K.RI.2 With prompting and support, identify key individuals, events, or pieces of information in an informational text.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational texts.
LA.K.RI.3 With prompting and support, define the role of author and illustrator in presenting the ideas or information in a text.
LA.K.RI.4 With prompting and support, use text features (titles, headings, visuals) to predict or confirm the topic of a text.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational texts.
LA.K.RI.5 With prompting and support, identify basic similarities and differences between two informational texts on the same topic.
LA.K.RI.6 With prompting and support, explain the difference between facts and opinions about a topic.
LA.K.RI.7 With prompting and support, make connections between own experiences and other cultures in informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational texts independently and proficiently.
LA.K.RI.8 Actively engage in group reading activities with purpose and understanding.

Instructional Considerations

- A text's topic is its general subject, which is typically a word or short phrase describing what the text is about, for example, "zoo animals."
- Making predictions and drawing conclusions, known as *forward inferencing*, occur when readers draw from textual information provided up to that point in the text; confirming predictions using textual evidence is a necessary step after making predictions about a topic or events.
- At this grade level, students may explain orally statements of fact or opinion either in response to questions or while engaging in discussion of text.

V O C A B U L A R Y

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.
LA.K.V.1 Recognize and use conversational and grade-level academic vocabulary.

a. With prompting and support, identify new meanings of familiar words (e.g., park, ring, fly).
b. With prompting and support, use commonly occurring inflections and affixes to determine the meaning of unknown words.
c. With prompting and support, determine the meanings of key words and phrases using provided reference materials and classroom resources.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies.
LA.K.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. With prompting and support, sort common words and phrases into conceptual categories to develop an understanding of word relationships.
b. With prompting and support, deepen understanding of words by identifying and relating them to their opposites.
c. With prompting and support, ask and answer questions about key words and phrases to determine their meaning.
d. With prompting and support, identify and explain descriptive words and phrases that suggest feelings or appeal to the senses.

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Foundations of Writing | Apply handwriting skills to communicate ideas and information.
LA.K.FW.1 Demonstrate basic handwriting skills.

a. Identify and match upper and lowercase manuscript letters.
b. Print many upper and lowercase manuscript letters using reference materials and classroom resources.
c. Write left to right and use appropriate spacing between letters and words.

LA.K.FW.2 Demonstrate sound-letter concepts when writing.

a. Segment phonemes orally in single-syllable words.
b. Demonstrate understanding that syllables are organized around vowel sounds.

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.
LA.K.W.1 With prompting and support, form and use complete simple sentences in shared language activities.

a. Capitalize the first word in a sentence and the pronoun *I*.
b. Recognize and name end punctuation.
c. Identify nouns (e.g., singular and plural) and simple verbs (e.g., action).
d. Form regular plural nouns by adding /s/ or /es/.
e. Use interrogatives to ask questions.
f. Use subject-verb agreement in simple sentences.

LA.K.W.2 With prompting and support, use a recursive writing process to develop, strengthen, and produce writing appropriate to the discipline, audience, and/or context.

a. Use prewriting activities and resources to generate ideas.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Use feedback from others to improve writing and/or add details.
d. Use or decipher multiple formats of print and digital text (e.g., manuscript, font, graphics, symbols).
e. Use appropriate digital/multimedia tools to produce, enhance, and/or publish writing individually or with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.
LA.K.W.3 With prompting and support, narrate personal or fictional events in a sequential order using a combination of drawing, dictating, and/or writing.

LA.K.W.4 With prompting and support, express an opinion about a topic or text with one supporting reason using a combination of drawing, dictating, and/or writing.

LA.K.W.5 With prompting and support, write informative/explanatory pieces about a topic or text with one supporting fact using a combination of drawing, dictating, and/or writing.

LA.K.W.6 With prompting and support, identify information from provided sources to answer a question using a combination of drawing, dictating, and/or writing.

Instructional Considerations

- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.
- At this grade level, written pieces may be a combination of words, pictures, and dictated text.
- At this grade level, some personal opinion may be included in informational pieces.
- *The improvement of writing* refers to the editing of both drawing and writing.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.
LA.K.SL.1 With prompting and support, participate with peers and adults in structured discussions and routines about Kindergarten topics and texts.

a. Ask pertinent questions to acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Develop attentive listening skills (e.g., eye contact, nonverbal cues, recalling).
e. Complete a task following one/two-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.
LA.K.SL.2 With prompting and support, describe familiar people, places, things, and events, and provide additional detail.

a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations.
b. Convey a personal perspective with clear reasons.
c. Explain the purpose of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., helpful/hurtful words).
e. Use appropriate visual and/or digital tools to support verbal communication.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grade 1 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

FOUNDATIONS OF READING

Concepts of Print | Demonstrate knowledge of the organization and basic concepts of print.
LA.1.F.1 Demonstrate knowledge of the organization and basic concepts of print.

a. Recognize the distinguishing features of a sentence.

Phonological Awareness |Demonstrate phonological awareness through oral activities.
understanding of spoken words, syllables, and sounds (phonemes).
LA.1.F.2 Demonstrate understanding of spoken words, syllables, and sounds (phonemes).

a. Identify, segment and blend phonemes in single syllable spoken three and four phoneme words including words with blends.
b. Delete initial and final phonemes in words.
c. Substitute phonemes in spoken words to build new words in single-syllable words with no blends.
d. Add or substitute individual sounds (phonemes in simple, one-syllable words to make new words), (e.g., "Say 'map.' Say it again and instead of /p/ say /t/. What is the new word? 'Mat'").

Phonics and Word Analysis | Demonstrate phonetic and word analysis knowledge and apply decoding skills to isolated words and in connected text.
LA.1.F.3 Know and apply phonics and word analysis skills in decoding and encoding (spelling) words.

a. Decode and encode words using knowledge of sound-spelling correspondence for common consonant digraphs, tri-graphs, and blends.
b. Decode and encode simple words with r-controlled vowels.
c. Decode and encode regularly spelled one-syllable words.
d. Decode and encode final -e and common vowel team conventions for representing long vowel sounds.
e. Decode and encode two-syllable words with regular patterns by breaking the words into syllables.
f. Decode and encode words with inflectional endings.
g. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word.
h. Recognize and read grade-appropriate, irregularly spelled words.

Fluency | Read grade-level texts with sufficient accuracy and fluency to support comprehension.
LA.1.F.3 Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level texts to support comprehension.

a. Read decodable text accurately with appropriate rate, intonation, and expression/prosody to reflect meaning.
b. Read grade level high-frequency words with automaticity and accuracy (e.g., Fry or Dolch words or those included in instructional materials).

Instructional Considerations

- *Phonological awareness* refers to oral skills and to the syllable, onset-rime, and phoneme levels and does not involve print or letter knowledge.
- *Phonics* refers to the relationship between graphemes (letters or letter combinations) and phonemes (speech sounds).
- Many high-frequency words at the primary grade levels are either irregularly spelled or temporarily irregular, thus students have not yet learned the phonics rule that would enable them to decode the word. Those words that are decodable should be introduced to students using appropriate phonics rules. High-frequency words should be introduced utilizing the regular sound-spelling patterns found within the word, not only as words to be memorized.
- *Reading fluency* refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text. "Fluency is manifested in accurate, rapid, expressive oral reading and is applied during, and makes possible, silent reading comprehension," (Pikulski & Chard, 2005).
- Students at this grade level should practice reading fluently with texts within the grade band for quantitative complexity measures and appropriate in content and qualitative measures.

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary texts.
LA.1.RP.1 Retell familiar stories, including key details, and demonstrate understanding of their central message or lesson from a literary text.
LA.1.RP.2 Identify the main character(s), setting, and important events, drawing on key details in a literary text.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary texts.
LA.1.RP.3 Explain the difference between the roles of author and narrator or speaker in a literary text.
LA.1.RP.4 Identify the basic characteristics of literary text, drawing on a wide range of text types.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary texts.
LA.1.RP.5 Compare and contrast the experiences of characters in familiar stories.
LA.1.RP.6 Ask and answer questions about key details in a literary text.
LA.1.RP.7 Make connections between own experiences and other cultures in literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary texts independently and proficiently.
LA.1.RP.8 With prompting and support, read and comprehend a wide range of literary texts of appropriate complexity for Grade 1.

Instructional Considerations

- Making predictions and drawing conclusions, known as *forward inferencing*, occur when readers draw from textual information provided up to that point in the text; confirming predictions using textual evidence is a necessary step after making predictions about a topic or events.
- At this grade level, descriptions should be both oral and written as students respond to questions or engage in discussion.
- In describing settings or characters, students should explain what in the text the descriptions are based upon.
- Students should be made aware that not all narratives contain a central message or lesson.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational texts.
LA.1.RI.1 Identify the main topic and key details in an informational text.
LA.1.RI.2 Identify key individuals, events, or pieces of information in an informational text.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational texts.
LA.1.RI.3 Define the role of the author and illustrator in presenting the ideas or information in a text.
LA.1.RI.4 Use text features (titles, headings, visuals) to predict or confirm the topic of a text.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational texts.
LA.1.RI.5 Identify basic similarities and differences between two informational texts on the same topic.
LA.1.RI.6 Identify an author's opinion(s) about a text.
LA.1.RI.7 Make connections between own experiences and other cultures in informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational texts independently and proficiently.
LA.1.RI.8 With prompting and support, read and comprehend a wide range of informational texts of appropriate complexity for Grade 1.

Instructional Considerations

- A text's topic is its general subject, which is typically a word or short phrase describing what the text is about, for example, "zoo animals."
- Making predictions and drawing conclusions, known as *forward inferencing*, occur when readers draw from textual information provided up to that point in the text; confirming predictions using textual evidence is a necessary step after making predictions about a topic or events.
- At this grade level, students should explain both orally and in writing statements of fact or opinion, either in response to questions or while engaging in discussion of text.
- Simple graphic organizers (Venn diagrams, t-charts) will support students in understanding similarities and differences.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.1.V.1 Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary.

a. Use sentence-level context clues to determine the meaning of a word or phrase.
b. Use commonly occurring affixes to determine the meaning of unknown words.
c. Identify commonly occurring root words and their inflectional forms.
d. Determine the meanings of key words and phrases using provided reference materials and classroom resources.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies.

LA.1.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Sort common words and phrases into conceptual categories to develop an understanding of word relationships.
b. Define words by their category and simple attributes (e.g., a duck is a bird that swims).
c. Ask and answer questions about key words and phrases to determine their meaning.
d. Distinguish nuances of meaning between common verbs (e.g., glance, stare) and adjectives differing in intensity (e.g., large, gigantic).

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Foundations of Writing | Apply handwriting skills to legibly communicate ideas and information.

LA.1.FW.1 Demonstrate and apply handwriting skills.

a. Print all upper and lowercase manuscript letters using correct formation.
b. Write the common grapheme (letter or letter group) for each phoneme.
c. Use appropriate spacing between letters and words.

LA.1.FW.2 Demonstrate sound-letter concepts when writing.

a. Segment phonemes in two- and three-phoneme syllables.
b. Write letters used to represent vowel phonemes and those used to represent consonants; demonstrate understanding that every syllable has a vowel.

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.1.W.1 Write and expand grammatically correct simple sentences and paragraphs.

a. Capitalize proper nouns (e.g., days of the week, names of people).
b. Use end punctuation, commas in dates, and commas to separate single words in a series.
c. Identify and use nouns (e.g., common, proper), pronouns (e.g., personal and possessive), verbs (e.g., past, present), and descriptive adjectives.
d. Form and use regular and frequently occurring irregular plural nouns.
e. Use subject-verb agreement in simple and compound sentences.

LA.1.W.2 Develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Use prewriting activities and resources to generate and organize ideas.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Use feedback from others to improve writing and/or add details.
d. Use or decipher multiple formats of print and digital text (e.g., manuscript, font, graphics, symbols).
e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.1.W.3 With prompting and support, write personal or fictional creative and/or expressive pieces that retell two or more appropriately sequenced events.

a. Include some relevant details.
b. Use time order words to signal sequence of events.
c. Provide a sense of closure.

LA.1.W.4 With prompting and support, express an opinion about a topic or text and provide a supporting reason.

a. Introduce a topic or text.
b. State an opinion and provide a reason to support the opinion.
c. Provide a sense of closure.

LA.1.W.5 With prompting and support, write informative/explanatory pieces about a topic or text with supporting facts and details.

a. Introduce a topic.
b. Develop a topic using supporting facts and details.
c. Use words and phrases related to the topic.
d. Provide a sense of closure.

LA.1.W.6 With prompting and support, identify information from provided sources to answer a question.

a. Retell or recall information from provided sources.
b. Use provided print and/or digital tools to gather information and ideas to answer questions.
c. Sort evidence and information into categories.
d. Use provided print and/or digital tools to gather information and ideas and to answer questions.
e. Practice safe behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.
LA.1.SL.1 Participate with peers and adults in structured discussions and routines about 1st grade topics and texts.

a. Ask pertinent questions to acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Develop attentive listening skills (e.g., eye contact, nonverbal cues, recalling).
e. Complete a task following one/two-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.
LA.1.SL.2 Tell a story or recount experiences with appropriate facts and pertinent descriptive details.

a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 1st grade texts.
b. Convey a personal perspective with clear reasons.
c. With prompting and support, explain the purpose of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., helpful/hurtful words).
e. Use appropriate visual and/or digital tools to support verbal communication.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Approved by the Nebraska State Board of Education on September 2, 2021

Grade 2 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

FOUNDATIONS OF READING

Concepts of Print | Demonstrate knowledge of the organization and basic concepts of print.
LA.2.F.1 Demonstrate knowledge of the organization and basic concepts of print.

a. Recognize the distinguishing features of a paragraph including that multiple sentences may be used to form a paragraph and the author may indent or skip a line to signal a new paragraph.

Phonological Awareness |Demonstrate phonological awareness through oral activities.
LA.2.F.2 Demonstrate understanding of advanced phonemic awareness skills in spoken words, syllables, and sounds (phonemes).

a. Identify, segment, and blend phonemes in single syllable spoken five and six phoneme words including words with blends, digraphs, and trigraphs.
b. Substitute sounds in words with five or more phonemes.
c. Delete initial and final phonemes in words including words with blends.

Phonics and Word Analysis | Demonstrate phonetic and word analysis knowledge and apply decoding skills to isolated words and in connected text.
LA.2.F.3 Know and apply phonics and word analysis skills in decoding and encoding (spelling) words.

a. Decode words with variable vowel teams and vowel diphthongs.
b. Decode regularly spelled two-syllable words with long vowels.
c. Decode words with open and closed syllables and consonant -le.
d. Decode words with common Anglo roots and suffixes.
e. Decode words with silent letter combinations.

Fluency | Read grade-level texts with sufficient accuracy and fluency to support comprehension.
LA.2.F.4 Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level texts to support comprehension.

a. Read a variety of texts accurately using appropriate rate, expression, and intonation to reflect meaning.
b. Read grade level high-frequency words with automaticity and accuracy (e.g., Fry or Dolch words or those included in instructional materials).

Instructional Considerations

- *Phonological awareness* refers to oral skills and to the syllable, onset-rime, and phoneme levels and does not involve print or letter knowledge.
- *Phonics* refers to the relationship between graphemes (letters or letter combinations) and phonemes (speech sounds).
- Many high-frequency words at the primary grade levels are either irregularly spelled or temporarily irregular, thus students have not yet learned the phonics rule that would enable them to decode the word. Those words that are decodable should be introduced to students using appropriate phonics rules. High-frequency words should be introduced utilizing the regular sound-spelling patterns found within the word, not only as words to be memorized.
- *Reading fluency* refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text. "Fluency is manifested in accurate, rapid, expressive oral reading and is applied during, and makes possible, silent reading comprehension," (Pikulski & Chard, 2005).
- Students at this grade level should practice reading fluently with texts within the grade band for quantitative complexity measures and appropriate in content and qualitative measures.

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.
LA.2.RP.1 Recount narratives and determine their central message, lesson, or moral.
LA.2.RP.2 Describe characters and how they interact with one another.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.2.RP.3 Determine and explain who is telling a story within and across literary texts.
LA.2.RP.4 Describe the basic structure of a literary text, including how literary elements are introduced and developed and conflicts are resolved.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.2.RP.5 Compare and contrast two or more versions of the same literary text by different authors or from different cultures.
LA.2.RP.6 Ask and answer literal (e.g., recall/details) and simple inferential (e.g., why or how) questions about key details in a literary text.
LA.2.RP.7 Compare and contrast topics in a variety of literary texts to build knowledge of cultures (e.g., history, values, beliefs, and behaviors).

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.
LA.2.RP.8 With scaffolding as needed, read and comprehend a wide range of literary texts of appropriate complexity for Grade 2.

Instructional Considerations

- Making predictions and drawing conclusions, known as *forward inferencing*, occur when readers draw from textual information provided up to that point in the text; confirming predictions using text evidence is a necessary step.
- In describing settings or characters, students should explain what in the text the descriptions are based upon.
- Students should be made aware that not all narratives contain a central message or lesson.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.
LA.2.RI.1 Identify the main topic and key details in a multi-paragraph text.
LA.2.RI.2 Describe the connections between individuals, historical events, scientific ideas, or steps in a process.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.2.RI.3 Determine and explain the author's purpose in an informational text, including what the author wants to answer, explain, or describe.
LA.2.RI.4 Explain how text features (titles, headings, table of contents, glossaries, captions, graphs, maps, and/or other visuals) contribute to the meaning of texts.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.
LA.2.RI.5 Compare and contrast the two most important ideas presented by two informational texts on the same topic.
LA.2.RI.6 Explain an author's opinion(s) and supporting evidence from the text.
LA.2.RI.7 Compare and contrast topics in a variety of informational texts to build knowledge of cultures (e.g., history, values, beliefs, and behaviors).

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.
LA.2.RI.8 With scaffolding as needed, read and comprehend a wide range of informational texts of appropriate complexity for Grade 2.

Instructional Considerations

- Making predictions and drawing conclusions, known as *forward inferencing*, occur when readers draw from textual information provided up to that point in the text; confirming predictions using textual evidence is a necessary step after making predictions about a topic or events.
- At this grade level, students should explain both orally and in writing statements of fact or opinion, either in response to questions or while engaging in discussion of text.
- Simple graphic organizers (Venn diagrams, t-charts) will support students in understanding similarities and differences.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.2.V.1 Recognize and use conversational and grade-level academic vocabulary.

a. Use sentence-level context clues to determine the meaning of a word or phrase.
b. Use commonly occurring prefixes and suffixes to determine the meaning of unknown words (e.g., happy/unhappy).
c. Use known root words to determine the meaning of unknown words (e.g., addition, additional).
d. Determine the meaning of compound words by using knowledge of individual words (e.g., birdhouse).
e. Determine the meanings of key words and phrases using provided reference materials and classroom resources.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies.

LA.2.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Ask and answer questions about key words and phrases to determine their meaning.
b. Distinguish nuances of meaning between closely related verbs (e.g., toss, throw) and closely related adjectives (e.g., thin, slender).

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Foundations of Writing | Apply handwriting skills to communicate ideas and information.

LA.2.FW.1 Demonstrate and apply handwriting skills.

a. Write legibly using correct formation of letters with automaticity and proper spacing between words.

LA.2.FW.2 Demonstrate sound-letter concepts when writing.

a. Write common graphemes (letters or letter groups) for each phoneme.

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.2.W.1 Write and expand grammatically correct sentences (e.g. declarative, imperative, interrogative, exclamatory).

a. Capitalize proper nouns (e.g., holidays, countries, product names).
b. Use commas in greetings and closings of letters; use apostrophes to form contractions and frequently occurring possessives.
c. Identify and explain the use of nouns (e.g., collective and irregular plural), pronouns (e.g., demonstrative), verbs (e.g., past tense irregular), simple prepositions, and frequently occurring conjunctions.
d. Maintain consistent verb tense across sentences or paragraphs.

LA.2.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Use prewriting activities and resources to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
e. Use or decipher multiple formats of print and digital text (e.g., manuscript, font, graphics, symbols).
f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.2.W.3 Write personal or fictional narratives that retell two or more appropriately sequenced events.

a. Include relevant details about characters and settings.
b. Use time order words to signal a sequence of events.
c. Provide a sense of closure.

LA.2.W.4 Express an opinion and provide supporting reasons.

a. Introduce a topic or text.
b. State an opinion and provide reasons to support the opinion.
c. Provide a concluding statement or section.

LA.2.W.5 Write informative/explanatory pieces about a topic or text with supporting facts and details.

a. Introduce a topic or text.
b. Develop a topic with facts, details, and definitions.
c. Use words and phrases related to the topic.
d. Provide a concluding statement or section.

LA.2.W.6 Locate information from provided sources to answer questions about a topic.

a. Retell information from provided sources to support ideas while avoiding plagiarism.
b. Identify print and digital tools to gather information and ideas and answer questions.
c. Sort evidence and information into categories.
d. Demonstrate academic integrity by referencing sources in writing and speaking.
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.2.SL.1 Participate with peers and adults in structured discussions and routines about 2nd grade topics and texts.

a. Ask pertinent questions to acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Develop active and attentive listening skills (e.g., eye contact, nonverbal cues, recalling).
e. Complete a task following multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.2.SL.2 Tell a story or recount an experience with appropriate facts and pertinent descriptive details.

a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 2nd grade texts.
b. Convey a personal perspective with clear reasons.
c. Explain the purpose and credibility of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., helpful/hurtful words).
e. Use appropriate visual and/or digital tools to support verbal communication.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grade 3 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

FOUNDATIONS OF READING

Concepts of Print | Demonstrate knowledge of the organization and basic concepts of print.

Mastered at Grade 2 and blended with other skills at this grade level.

Phonological Awareness |Demonstrate phonological awareness through oral activities.

Mastered at Grade 2 and blended with other skills at this grade level.

Phonics and Word Analysis | Demonstrate phonetic and word analysis knowledge and apply decoding skills to isolated words and in connected text.

LA.3.F.3 Know and apply phonics and word analysis skills in decoding and encoding (spelling) words.

a. Decode words with common Latin suffixes.
b. Decode words with common derivational suffixes and describe how they turn words into different parts of speech.
c. Decode multisyllabic words.

Fluency | Read grade-level texts with sufficient accuracy and fluency to support comprehension.

LA.3.F.4 Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level text to support comprehension.

a. Read a variety of text accurately using appropriate rate, expression/prosody and intonation to reflect the meaning of text.
b. Adjust pace and prosody based on the purpose, complexity, form, and/or style of a text.
c. Read grade level high-frequency words with automaticity and accuracy (e.g., Fry or Dolch words or those included in instructional materials).

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Instructional Considerations

- *Phonics* refers to the relationship between graphemes (letters or letter combinations) and phonemes (speech sounds).
- Many high-frequency words at the primary grade levels are either irregularly spelled or temporarily irregular, thus students have not yet learned the phonics rule that would enable them to decode the word. Those words that are decodable should be introduced to students using appropriate phonics rules. High-frequency words should be introduced utilizing the regular sound-spelling patterns found within the word, not only as words to be memorized.
- *Reading fluency* refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text. "Fluency is manifested in accurate, rapid, expressive oral reading and is applied during, and makes possible, silent reading comprehension," (Pikulski & Chard, 2005).
- Students at this grade level should practice reading fluently with texts within the grade band for quantitative complexity measures and appropriate in content and qualitative measures.
- *Prosody* refers to the patterns of pausing to reflect the meaning of text while reading aloud.

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary texts.
LA.3.RP.1 Identify the central message or lesson in a literary text and explain how key details support that idea.
LA.3.RP.2 Explain how characters respond to major events and challenges in a literary text.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary and informational text.
LA.3.RP.3 Determine and explain the point of view in a literary text.
LA.3.RP.4 Explain how sections of a literary text (e.g., chapters, scenes, stanzas) build on one another and contribute to meaning.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.3.RP.5 Compare and contrast the themes, settings, and plots of literary texts written by the same author about the same or similar characters (e.g., books from a series).
LA.3.RP.6 Explain what the text says explicitly and draw inferences when asking and answering questions.
LA.3.RP.7 Compare and contrast themes, topics, and/or patterns of events in a range of literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.
LA.3.RP.8 Read and comprehend a wide range of literary texts of appropriate complexity for Grade 3 independently and proficiently.

Instructional Considerations

- In describing settings or characters, students should explain what in the text the descriptions are based upon.
- Students should be made aware that not all narratives contain a central message or lesson.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Point of view* refers to the vantage point from which a narrative is told.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.
LA.3.RI.1 Identify the central idea and explain how key details support that idea.
LA.3.RI.2 Explain the relationship between individuals, historical events, scientific ideas or concepts, or steps in a process.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.3.RI.3 Determine and explain the author's purpose in an informational text.
LA.3.RI.4 Explain how text features (titles, headings, table of contents, glossaries, captions, graphs, maps, and/or other visuals) contribute to meaning.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.
LA.3.RI.5 Compare and contrast the two most important ideas and key details presented by multiple informational texts on the same topic.
LA.3.RI.6 Identify an author's claim(s) and explain how the author supports the claim(s) in the text.
LA.3.RI.7 Compare and contrast topics and/or patterns of events in a range of informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.
LA.3.RI.8 Read and comprehend a wide range of informational texts of appropriate complexity for Grade 3 independently and proficiently.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.3.V.1 Acquire and use grade-level academic vocabulary appropriately.

a. Use sentence-level context clues to determine the meaning of a word or phrase.
b. Use affixes to determine the meaning of unknown words (e.g., comfortable, uncomfortable).
c. Use known root words to determine the meaning of unknown words (e.g., company, companion).
d. Determine the meanings of key words and phrases using reference materials and classroom resources.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies.

LA.3.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Distinguish between literal and nonliteral meanings of words and phrases in context (e.g., take steps).
b. Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful).
c. Distinguish nuances of meaning between related words that describe states of mind or degrees of certainty (e.g., believed, suspected).

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.3.W.1 Write paragraphs using a variety of sentence types.

a. Capitalize proper nouns (e.g., historic periods, nationalities, languages), proper adjectives (e.g., South American), and appropriate words in titles.
b. Use commas in addresses and commas and quotation marks in dialogue; use an apostrophe to form and use possessives.
c. Use frequently occurring nouns (e.g., concrete and abstract), verbs (regular and irregular), and simple verb tenses.
d. Distinguish between and use coordinating and subordinating conjunctions and independent and dependent clauses.
e. Explain the function of adjectives and adverbs in simple, compound, and complex sentences.
f. Use correct subject-verb and pronoun-antecedent agreement in speaking and writing.
g. Use frequently occurring prepositions and prepositional phrases.

LA.3.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Use prewriting activities and resources to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
e. Use or decipher multiple formats of print and digital text (e.g., manuscript, cursive, font, graphics, symbols).
f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.3.W.3 Write creative and/or expressive pieces that describe a well-developed event or experience.

a. Engage and orient the ready by establishing a situation and introducing a narrator and/or character(s).
b. Include descriptive details about characters, events, or settings.
c. Use words and phrases to signal a sequence of events.
d. Provide a closure related to the creative or expressive event or experience.

LA.3.W.4 Write opinion pieces with supporting reasons and/or evidence.

a. Introduce a topic or text, state an opinion, and develop a structure that includes reasons and/or evidence.
b. Use linking words and phrases to connect opinions and reasons.
c. Provide a concluding statement or section related to the opinion.

LA.3.W.5 Write informative/explanatory pieces to examine a topic or text and convey ideas and information.

a. Introduce a topic and group related information together, including illustrations when useful to provide clarity.
b. Develop the topic with information (e.g., facts, definitions, details) clearly related to the topic.
c. Use linking words and phrases and key vocabulary to connect ideas and categories of information.
d. Provide a concluding statement or section related to the topic.

LA.3.W.6 Locate evidence from literary and/or informational text sources to answer questions about a topic.

a. Paraphrase information from sources to support ideas while avoiding plagiarism.
b. Identify print and digital tools to gather information and ideas to answer questions.
c. Sort evidence into categories using an appropriate note-taking format to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources.
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.3.SL.1 Prepare for and participate in structured discussions and collaborations about 3rd grade topics and texts.

a. Ask relevant questions to build on ideas and acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a discussion or collaboration.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, recalling, questioning).
e. Complete a task following multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.3.SL.2 Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details.

a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 3rd grade texts.
b. Convey a perspective with clear reasoning and support.
c. Identify the purpose and credibility of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words).
e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grade 4 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

FOUNDATIONS OF READING

Concepts of Print | Demonstrate knowledge of the organization and basic concepts of print.

Mastered at Grade 2 and blended with other skills at this grade level.

Phonological Awareness |Demonstrate phonological awareness through oral activities.

Mastered at Grade 2 and blended with other skills at this grade level.

Phonics and Word Analysis | Demonstrate phonetic and word analysis knowledge and apply decoding skills to isolated words and in connected text.

LA.4.F.3 Know and apply phonics and word analysis skills in decoding and encoding (spelling) words.

a. Decode words with common Latin derived words.
b. Use combined knowledge of letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in and out of context.

Fluency | Read grade-level texts with sufficient accuracy and fluency to support comprehension.

LA.4.F.4 Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level text to support comprehension.

a. Read a variety of text accurately using appropriate rate, expression/prosody and intonation to reflect the meaning of text.
b. Adjust pace and prosody based on the purpose, complexity, form, and/or style of a text.

Instructional Considerations

- *Phonics* refers to the relationship between graphemes (letters or letter combinations) and phonemes (speech sounds).
- Many high-frequency words at the primary grade levels are either irregularly spelled or temporarily irregular, thus students have not yet learned the phonics rule that would enable them to decode the word. Those words that are decodable should be introduced to students using appropriate phonics rules. High-frequency words should be introduced utilizing the regular sound-spelling patterns found within the word, not only as words to be memorized.
- *Reading fluency* refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text. "Fluency is manifested in accurate, rapid, expressive oral reading and is applied during, and makes possible, silent reading comprehension," (Pikulski & Chard, 2005).
- Students at this grade level should practice reading fluently with texts within the grade band for quantitative complexity measures and appropriate in content and qualitative measures.
- *Prosody* refers to the patterns of pausing to reflect the meaning of text while reading aloud.

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.
LA.4.RP.1 Determine a theme in a literary text and how it is conveyed through key details.
LA.4.RP.2 Analyze a character, setting, or event in a literary text, drawing on specific details such as a character's thoughts, words, or actions.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.4.RP.3 Distinguish reader perspective from the perspective and point of view of the narrator or the characters in a literary text.
LA.4.RP.4 Compare and contrast the structural elements of literary texts (e.g., dramas, narratives, and poems).

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.4.RP.5 Compare and contrast the treatment of similar themes and topics and patterns of events in literary texts by different authors or from different cultures.
LA.4.RP.6 Explain what the text says explicitly and draw inferences when asking or answering questions, quoting or paraphrasing specific evidence from the text as appropriate.
LA.4.RP.7 Explain an author or narrator/speaker's treatment of similar themes and/or patterns of events in a wide range of literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.
LA.4.RP.8 Read and comprehend a wide range of literary texts of appropriate complexity for Grade 4 independently and proficiently.

Instructional Considerations

- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based largely on personal knowledge and experience.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Author's craft* refers to the techniques an author uses to develop and support a theme.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.
LA.4.RI.1 Determine the central idea of an informational text and how it is conveyed through key details.
LA.4.RI.2 Analyze an individual, event, scientific idea or concept, or steps in a process.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.4.RI.3 Compare and contrast authors' perspectives in multiple informational texts of the same topic.
LA.4.RI.4 Describe the overall structure of an informational text and how it contributes to meaning.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.
LA.4.RI.5 Integrate information from multiple informational texts on the same topic in order to demonstrate knowledge of the topic.
LA.4.RI.6 Identify an author's claim(s) and explain how the author supports the claim in the text.
LA.4.RI.7 Explain an author or speaker's treatment of similar topics and/or patterns of events in a wide range of informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.
LA.4.RI.8 Read and comprehend a wide range of informational texts of appropriate complexity for Grade 4 independently and proficiently.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.
- *Text structure* refers to the primary way an author organizes information in a text. Student should be made aware that authors sometimes use different structures for different sections within a larger piece.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.4.V.1 Acquire and use grade-level academic vocabulary appropriately.

a. Use context clues (e.g., definitions, examples, or restatements) to determine the meanings of words and phrases.
b. Use commonly occurring Latin affixes and roots to determine the meanings of words and phrases (e.g., photograph, autograph).
c. Determine or clarify the meanings or pronunciations of words using reference materials and classroom resources.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies.

LA.4.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Explain the meaning of commonly occurring similes and metaphors (e.g., light as a feather) in grade-level text.
b. Recognize and explain the meaning of commonly occurring idioms and adages.
c. Use knowledge of words by relating them to their antonyms and synonyms.

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.4.W.1 Create grammatically correct sentences and paragraphs using a variety of sentence types and phrasing.

a. Capitalize proper nouns (e.g., organizations, geographic regions, monuments and landmarks).
b. Use commas and quotation marks to indicate direct speech and quotations from a text; use a comma before a coordinating conjunction in a compound sentence and with dependent clauses.
c. Identify and use simple appositive phrases.
d. Identify and use frequently occurring pronouns (e.g., subject, object), adverbs (e.g., relative), and verbs (e.g., helping and linking).
e. Distinguish between frequently confused words (e.g., to, too, two; there, their, they're).
f. Identify and revise fragment and run-on sentences in speaking and writing.

LA.4.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Use prewriting activities and resources to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
e. Use or decipher multiple formats of print and digital text (e.g., manuscript, cursive, font, graphics, symbols).
f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.4.W.3 Write creative and/or expressive pieces that describe a well-developed event or experience.

a. Establish a situation and introduce a narrator and/or character(s).
b. Use precise words and phrases, descriptive/sensory details, and dialogue to develop characters, events, and settings.
c. Use transitional words and phrases to organize a sequence of events that unfolds naturally.
d. Provide a conclusion related to the creative or expressive event or experience.

LA.4.W.4 Write opinion pieces that explain a perspective with supporting reasons and/or evidence.

a. Introduce a topic or text clearly, state an opinion, and develop a structure that includes reasons and/or evidence.
b. Use facts and details to support reasons and/or evidence.
c. Use linking words and phrases to connect ideas.
d. Provide a concluding statement or section related to the opinion.

LA.4.W.5 Write informative/explanatory pieces to examine a topic or text and convey ideas and information.

a. Introduce a topic clearly and group related information into paragraphs and sections including text features, illustrations, and/or multimedia elements.
b. Develop the topic with information (e.g., facts, definitions, details, quotations) related to the topic.
c. Use linking words and phrases and key vocabulary to connect ideas and categories of information.
d. Provide a concluding statement or section related to the information or explanation(s).

LA.4.W.6 Locate and summarize relevant evidence from literary and/or informational text sources to answer questions about a topic.

a. Paraphrase information and evidence to support ideas while avoiding plagiarism.
b. Identify print and digital tools to gather information and evidence.
c. Sort evidence into categories using an appropriate note-taking format to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources.
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g. safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.4.SL.1 Prepare for and participate in structured discussions and collaborations about 4th grade topics and texts.

a. Ask relevant questions to build on ideas or acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, recalling, questioning).
e. Complete a task following multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.4.SL.2 Report on a topic or text, tell a story, or recount an experience in an organized manner with appropriate facts and relevant, descriptive details to support themes or central ideas.

a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 4th grade texts.
b. Convey a perspective with clear reasoning and support.
c. Identify the purpose and credibility of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words).
e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grade 5 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

FOUNDATIONS OF READING

Concepts of Print | Demonstrate knowledge of the organization and basic concepts of print.

Mastered at Grade 2 and blended with other skills at this grade level.

Phonological Awareness |Demonstrate phonological awareness through oral activities.

Mastered at Grade 2 and blended with other skills at this grade level.

Phonics and Word Analysis | Demonstrate phonetic and word analysis knowledge and apply decoding skills to isolated words and in connected text.

LA.5.F.3 Know and apply phonics and word analysis skills in decoding and encoding (spelling) words.

a. Decode words with common Greek derived words.
b. Use combined knowledge of letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to decode unfamiliar multisyllabic words in and out of context.

Fluency | Read grade-level texts with sufficient accuracy and fluency to support comprehension.

LA.5.F.4 Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level texts to support comprehension.

a. Read a variety of texts accurately using appropriate rate, expression/prosody, and intonation to reflect meaning.
b. Adjust pace and prosody based on the purpose, complexity, form, and/or style of a text.

Instructional Considerations

- *Phonics* refers to the relationship between graphemes (letters or letter combinations) and phonemes (speech sounds).
- Many high-frequency words at the primary grade levels are either irregularly spelled or temporarily irregular, thus students have not yet learned the phonics rule that would enable them to decode the word. Those words that are decodable should be introduced to students using appropriate phonics rules. High-frequency words should be introduced utilizing the regular sound-spelling patterns found within the word, not only as words to be memorized.
- *Reading fluency* refers to efficient, effective word recognition skills that permit a reader to construct the meaning of text. "Fluency is manifested in accurate, rapid, expressive oral reading and is applied during, and makes possible, silent reading comprehension," (Pikulski & Chard, 2005).
- Students at this grade level should practice reading fluently with texts within the grade band for quantitative complexity measures and appropriate in content and qualitative measures.
- *Prosody* refers to the patterns of pausing to reflect the meaning of text while reading aloud.

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.
LA.5.RP.1 Explain the theme in a literary text and how it is conveyed through key details.
LA.5.RP.2 Compare and contrast two or more characters, settings, or events in a literary text or texts.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.5.RP.3 Describe how a narrator or speaker's point of view influences the meaning of a literary text.
LA.5.RP.4 Explain how a sequence of chapters, scenes, or stanzas fit together to provide the overall structure of literary texts.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.5.RP.5 Compare and contrast the treatment of themes and topics in literary texts of the same genre.
LA.5.RP.6 Analyze a literary text to answer and develop inferential questions to enhance the comprehension of self and others, quoting or paraphrasing specific evidence from the text.
LA.5.RP.7 Explain the relationships between two or more characters, events, or ideas in a range of literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.
LA.5.RP.8 Read and comprehend a wide range of literary texts of appropriate complexity for Grade 5 independently and proficiently.

Instructional Considerations

- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based largely on personal knowledge and experience.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Author's craft* refers to the techniques an author uses to develop and support a theme.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary and informational texts.
LA.5.RI.1 Explain the central idea in an informational text and how it is conveyed through key details.
LA.5.RI.2 Compare and contrast two or more individuals, events, scientific ideas or concepts, or steps in a process, drawing on supporting details from an informational text or texts.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.5.RI.3 Determine the author's purpose(s) and describe how the author's perspective (e.g., beliefs, assumptions, biases) influences the meaning of an informational text.
LA.5.RI.4 Explain how text features (titles, headings, table of contents, glossaries, captions, graphs, maps, and/or other visuals) contribute to the meaning of texts.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary and informational text.
LA.5.RI.5 Integrate information from multiple texts on the same topic in order to demonstrate knowledge of the topic.
LA.5.RI.6 Analyze the development of an author's claim(s) and how supporting evidence is used to support the claim(s).
LA.5.RI.7 Explain the relationships between two or more individuals, events, ideas, or concepts in a range of informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.
LA.5.RI.8 Read and comprehend a wide range of informational text of appropriate complexity for Grade 5 independently and proficiently.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.

- *Text structure* refers to the primary way an author organizes information in a text. Student should be made aware that authors sometimes use different structures for different sections within a larger piece.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.5.V.1 Acquire and use grade-level academic vocabulary appropriately.

a. Use context clues (e.g., cause/effect relationships and comparisons in text) to determine the meanings of words and phrases.
b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words.
c. Determine or clarify the precise meanings or pronunciations of words and phrases using reference materials and classroom resources.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies.

LA.5.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Interpret figurative language, including similes and metaphors, in context.
b. Recognize and explain the meaning of commonly occurring idioms, adages, and proverbs.
c. Demonstrate knowledge of relationships between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.5.W.1 Create grammatically correct multi-paragraph compositions with varied sentence structures.

a. Apply knowledge of rules for capitalization; use underlining, quotation marks, or italics to indicate titles of works.
b. Use a comma to separate an introductory element from the rest of a sentence, to separate clauses, to set off a question, and to indicate direct address.
c. Explain the function of and use frequently occurring interjections, verb tenses (e.g., perfect), and correlative conjunctions.
d. Distinguish between and use types of adjectives (e.g., comparative, superlative).
e. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tenses.

LA.5.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Use prewriting activities and resources to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
e. Use or decipher multiple formats of print and digital text (e.g., manuscript, cursive, font, graphics, symbols).
f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.5.W.3 Write creative and/or expressive pieces that describe a well-developed event or experience.

a. Establish a situation and introduce a narrator and/or characters.
b. Use precise words and phrases, descriptive/sensory details, dialogue, and sensory language to convey thoughts, feelings, experiences, and events.
c. Use a variety of transitional words and phrases to organize a sequence of events that unfolds naturally.
d. Provide a conclusion related to the creative or expressive event or experience.

LA.5.W.4 Write opinion pieces that explain a perspective with supporting reasons and evidence.

a. Introduce a topic or text clearly, state an opinion or perspective, and develop a structure in which ideas are grouped logically.
b. Use facts and details to support reasons and/or evidence.
c. Use words, phrases, and key vocabulary to connect ideas.
d. Provide a concluding statement or section related to the perspective.

LA.5.W.5 Write informative/explanatory pieces to examine a topic or text and clearly convey ideas and information.

a. Introduce a topic clearly and provide a general focus, grouping information logically and including text features, illustrations, and/or multimedia elements.
b. Develop the topic with information (e.g., facts, definitions, details, quotations) related to the topic.
c. Use linking words and phrases and key vocabulary to connect ideas and categories of information.
d. Provide a concluding statement or section related to the information or explanation(s).

LA.5.W.6 Locate and summarize relevant information and evidence from literary and informational text sources to answer questions about a topic.

a. Paraphrase information and evidence to support ideas while avoiding plagiarism.
b. Locate and evaluate credibility of evidence (e.g., motivation and/or potential bias of an information product) from print and digital sources to generate and answer questions and create new understandings.
c. Sort evidence into categories using an appropriate note-taking format to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources using a standard format.
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.5.SL.1 Prepare for and participate in structured discussions and collaborations about 5th grade topics and texts.

a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, recalling, questioning).
e. Complete a task following multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.5.SL.2 Report on a topic or text, or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support themes or central ideas.

a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 5th grade texts.
b. Convey a perspective with clear reasoning and support.
c. Identify the purpose and credibility of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words).
e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grade 6 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.
LA.6.RP.1 Determine the implied or explicit theme of a literary text and how it develops over the course of a text.
LA.6.RP.2 Explain how a plot unfolds as well as how the characters respond to events or changes as the plot moves toward a resolution.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.6.RP.3 Explain how an author establishes and conveys the point(s) of view of a narrator or speaker in a literary text.
LA.6.RP.4 Analyze how a sequence of chapters, scenes, or stanzas contribute to the development of literary elements (e.g. theme, setting, or plot).

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary and informational text.
LA.6.RP.5 Compare and contrast texts in different forms or genres (e.g., stories and poems, historical novels, fantasy stories) and their treatment of similar themes and topics.
LA.6.RP.6 Analyze a literary text to answer and develop inferential and evaluative questions to enhance the comprehension of self and others, quoting or paraphrasing specific evidence from the text.
LA.6.RP.7 Compare and contrast regional, national, and/or multicultural perspectives within and across literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary and informational texts independently and proficiently.
LA.6.RP.8 Read and comprehend a wide range of literary text of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.

Instructional Considerations

- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based largely on personal knowledge and experience.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Author's craft* refers to the techniques an author uses to develop and support a theme.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.
LA.6.RI.1 Determine the implied or explicit central idea of an informational text and how it develops over the course of a text.
LA.6.RI.2 Explain how a key individual, event, or idea or concept is introduced and developed, drawing on specific supporting details in an informational text.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.6.RI.3 Explain how an author establishes and conveys a perspective or purpose in an informational text.
LA.6.RI.4 Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.
LA.6.RI.5 Compare and contrast one author's presentation of information with that of another.
LA.6.RI.6 Analyze the development of an argument and identify the type(s) of reasoning used to support the argument.
LA.6.RI.7 Compare and contrast regional, national, and/or multicultural perspectives within and across informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.
LA.6.RI.8 Read and comprehend a wide range of informational texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.
- *Text structure* refers to the primary way an author organizes information in a text. Students at this grade level should be able to identify different structures for different sections within a larger piece.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.6.V.1 Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes.

a. Use context clues (e.g. the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases.
b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words (e.g., audience, audible).
c. Consult reference materials to determine or clarify the precise meanings, pronunciations, or parts of speech of words.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, choosing flexibly from a range of strategies.

LA.6.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Interpret figures of speech (e.g., literary, biblical, or mythological allusions) in context.
b. Determine the relationship between words (e.g., cause/effect, part/whole, item/category).
c. Distinguish between the connotations of words with similar denotations (e.g., economical, thrifty).

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.6.W.1 Create grammatically correct multi-paragraph compositions with varied sentence structures.

a. Apply knowledge of rules for capitalization.
b. Use punctuation (e.g., commas, parentheses, dashes) to set off non-restrictive clauses.
c. Use a colon to introduce items in a series; use a semicolon to combine independent clauses.
d. Explain the function of articles (e.g., definite and indefinite) and apply knowledge to writing.
e. Identify and use verb tenses (e.g., progressive).
f. Distinguish between and use different types of phrases (e.g., prepositional and appositive).
g. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tenses.

LA.6.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Use prewriting activities and inquiry tools to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.6.W.3 Write in a variety of literary forms to convey real or imagined experiences or events in which the development and structure are appropriate to the task, purpose, and audience.

a. Engage and orient the reader by establishing a context and introducing a narrator and/or character(s) and point of view; organize an event sequence that unfolds naturally and logically.
b. Use literary techniques (e.g. dialogue, pacing, description) to develop characters, events, settings, and conflicts.
c. Use a variety of transitional words and phrases to signal shifts from one character, time frame, or setting to another.

d. Use precise words and phrases, descriptive/sensory details, and figurative language to express personal or narrative voice.
e. Provide a conclusion that is clearly related to and appropriately reflects on the literary experiences or events.

LA.6.W.4 Write arguments that explain a perspective with supporting reasons and evidence.
a. Introduce a claim clearly and develop a structure in which the ideas are grouped logically.
b. Use relevant evidence from two or more credible sources.
c. Use words, phrases, and key vocabulary to clarify the relationship between claim(s) and supporting evidence.
d. Provide a concluding statement or section that follows from the argument presented.

LA.6.W.5 Write informative/explanatory pieces to examine a topic or text and clearly convey ideas and information.
a. Introduce a topic clearly and provide a general focus, grouping information logically and including text features, illustrations, and/or multimedia elements.
b. Develop a topic with information (e.g., facts, definitions, concrete details, quotations, examples) related to the topic.
c. Use appropriate transitions and key vocabulary to clarify relationships among ideas and concepts.
d. Provide a concluding statement or section that follows from the information or explanation(s).

LA.6.W.6 Gather and use credible evidence from trustworthy sources and assess its relevance in answering a research question.
a. Paraphrase and quote evidence to support ideas while avoiding plagiarism.
b. Locate and evaluate credibility of evidence (e.g., motivation and/or potential bias of an information product) from print and digital sources to generate and answer questions and create new understandings.
c. Select and use appropriate note-taking formats to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources using a standard format.
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.6.SL.1 Prepare for and participate in structured discussions and collaborations about 6th grade topics and texts.

a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with diverse individuals in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning).
e. Complete a task following multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.6.SL.2 Present claims and findings, sequencing ideas logically and using relevant descriptions, facts, and details to clarify themes or central ideas.

a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 6th grade texts.
b. Convey a perspective with clear reasoning and support.
c. Analyze the purpose and credibility of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, connotations, subtleties of language).
e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grade 7 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.

LA.7.RP.1 Determine two or more implied or explicit themes in a literary text and how they are supported with key details.

LA.7.RP.2 Analyze how particular events, lines of dialogue, or descriptive details develop the plot, reveal aspects of characters, or create meaning.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.

LA.7.RP.3 Analyze how an author establishes, conveys, and contrasts the points of view of different characters or narrators in a literary text.

LA.7.RP.4 Analyze the structure of a literary text, and how the structure contributes to its theme(s) and meaning.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.

LA.7.RP.5 Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period.

LA.7.RP.6 Synthesize the implied or stated theme(s) in a literary text to draw conclusions and deepen understanding of self and others.

LA.7.RP.7 Compare and contrast regional, national, and/or multicultural perspectives by explaining how an author or narrator/speaker introduces, illustrates, or describes characters or individuals, events, and ideas within and across literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.

LA.7.RP.8 Read and comprehend a wide range of literary texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.

Instructional Considerations

- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based largely on personal knowledge and experience.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Author's craft* refers to the techniques an author uses to develop and support a theme.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.

LA.7.RI.1 Determine two or more implied or explicit central ideas of an informational text and how they are supported with key details.

LA.7.RI.2 Analyze the relationships and interactions between individuals, events, and/or ideas or concepts, drawing on specific supporting details in an informational text.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.

LA.7.RI.3 Analyze how an author establishes or conveys a perspective or purpose and distinguishes it from that of others.

LA.7.RI.4 Analyze how the major sections of text contribute to the development of ideas in an informational text.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.

LA.7.RI.5 Analyze how the major sections of text contribute to the development of ideas in an informational text.

LA.7.RI.6 Analyze the development of an argument and identify the type(s) of reasoning used to support the argument.

LA.7.RI.7 Compare and contrast regional, national, and/or multicultural perspectives by explaining how an author or narrator/speaker introduces, illustrates, or describes characters or individuals, events, and ideas within and across informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.

LA.7.RI.8 Read and comprehend a wide range of informational texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.
- *Text structure* refers to the primary way an author organizes information in a text. Students at this grade level should be able to identify different structures for different sections within a larger piece.

V O C A B U L A R Y

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.7.V.1 Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes.

a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases.
b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words (e.g., audience, audible).
c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, or parts of speech of words.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, closing flexibly from a range of strategies.

LA.7.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Interpret figures of speech (e.g., literary, biblical, or mythological allusions) in context.
b. Determine the relationship between words (e.g., cause/effect, part/whole, item/category).
c. Distinguish between the connotations of words with similar denotations (e.g., polite, diplomatic).

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.7.W.1 Create grammatically correct multi-paragraph compositions with varied sentence structures.

a. Apply knowledge of rules for capitalization.
b. Use a comma to separate coordinate adjectives.
c. Distinguish between and use types of clauses (e.g., noun, relative, adverbial), modifiers (e.g., misplaced and dangling), and adjectives (coordinate and cumulative).
d. Use a variety of prepositional and appositive phrases in sentences and paragraphs.
e. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tenses.

LA.7.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Use prewriting activities and inquiry tools to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.7.W.3 Write in a variety of literary forms to convey real or imagined experiences or events in which the development and structure are appropriate to the task, purpose, and audience.

a. Engage and orient the reader by establishing a context and introducing a narrator and/or character(s), establishing and maintaining a point of view, and organizing an event sequence that unfolds naturally and logically.
b. Use literary techniques (e.g., dialogue, pacing, description) to develop characters, events, settings, and conflicts.
c. Use a variety of transitional words and phrases to signal shifts from one character, time frame, or setting to another.

d. Use precise words and phrases, descriptive/sensory details, and figurative language to express personal or narrative voice.
e. Provide a conclusion that is clearly related to and appropriately reflects on the literary experiences or events.

LA.7.W.4 Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience.

a. Develop a structure to sequence ideas appropriately; introduce a clear claim where appropriate.
b. Explain and cite relevant evidence from multiple credible sources.
c. Use words, phrases, and key vocabulary to create cohesion and clarify the relationship between claim(s) and supporting evidence.
d. Provide a concluding statement or section that follows from and supports the argument(s) presented.

LA.7.W.5 Write informative/explanatory pieces to examine a topic or text and clearly convey ideas and information.

a. Introduce a topic clearly and provide a specific focus, grouping information logically and including text features, illustrations, and/or multimedia elements.
b. Develop a topic with information (e.g., facts, definitions, concrete details, quotations, examples) related to the topic.
c. Use appropriate transitions and key vocabulary to clarify relationships among ideas and concepts.
d. Provide a concluding statement or section that follows from the information or explanation(s).

LA.7.W.6 Gather and use credible evidence from multiple trustworthy sources and assess its relevance in answering the research question.

a. Integrate evidence into writing by quoting or paraphrasing data and conclusions while avoiding plagiarism.
b. Locate and evaluate the credibility of evidence (e.g., motivation and/or potential bias of an information product) from print and digital sources to generate and answer questions and create new understandings.
c. Select and use appropriate note-taking formats to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source and citing sources within text (e.g., parenthetical and numerical); provide a list of sources using a standard format.
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.7.SL.1 Prepare for and participate in structured discussions and collaborations about 7th grade topics and texts.

a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning).
e. Complete a task following multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.7.SL.2 Present claims and findings, emphasizing key ideas in a focused, coherent manner with relevant descriptions, facts, details, and examples to clarify themes or central ideas.

a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 7th grade texts.
b. Convey a perspective with clear reasoning and valid evidence.
c. Analyze the purpose and credibility of information being presented.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words).
e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grade 8 Standards

Approved by the Nebraska State Board of Education on September 2, 2021

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.
LA.8.RP.1 Determine two or more implied or explicit themes of a text and how they develop over the course of a literary text, including their relationship to supporting ideas.
LA.8.RP.2 Analyze how particular events, lines of dialogue, or descriptive details develop the plot, reveal aspects of characters, or create meaning.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.8.RP.3 Analyze how an author establishes, conveys, and contrasts the points of view of the audience and the characters to create effects such as suspense, humor, or dramatic irony in a literary text.
LA.8.RP.4 Compare and contrast the structure of two or more literary texts and how their structures contribute to style and meaning.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.8.RP.5 Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works.
LA.8.RP.6 Synthesize the implied or stated theme(s) in a literary text to draw conclusions and deepen understanding of self and others.
LA.8.RP.7 Analyze regional, national, international, and/or multicultural perspectives to make connections among and distinctions between characters or ideas within and across a range of literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.
LA.8.RP.8 Read and comprehend a wide range of literary texts of appropriate complexity at the high end of the 6-8 grade band independently and proficiently.

Instructional Considerations

- Students at this grade level should understand distinctions between *universal*, *implied*, and *explicit* themes.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based largely on personal knowledge and experience.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Author's craft* refers to the techniques an author uses to develop and support a theme.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.
LA.8.RI.1 Determine two or more implied or explicit central ideas and how they develop over the course of an informational text, including their relationship to supporting ideas.
LA.8.RI.2 Analyze how particular events, interactions between individuals, or key facts and details contribute to meaning.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.8.RI.3 Analyze how an author establishes, conveys, and contrasts perspective or purpose in a text and how the author acknowledges and responds to conflicting evidence or viewpoints.
LA.8.RI.4 Compare and contrast the structure of a specific paragraph in an informational text, including the role of particular sentences in developing and refining a key concept.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.
LA.8.RI.5 Analyze how two or more texts provide conflicting information on the same topic, including where the texts disagree on matters of evidence or interpretation.
LA.8.RI.6 Analyze the development of an argument and evaluate the effectiveness of the type(s) of reasoning used to support the argument.
LA.8.RI.7 Analyze regional, national, international, and/or multicultural perspectives to make connections among and distinctions between individuals or ideas within and across a range of informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.

LA.8.RI.8 Read and comprehend a wide range of informational texts of appropriate complexity at the high end of the 6-8 grade band independently and proficiently.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.
- *Text structure* refers to the primary way an author organizes information in a text. Students at this grade level should be able to identify different structures for different sections within a larger piece.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.8.V.1 Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes.

a. Use context clues (e.g. the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases.
b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words (e.g., recede, precede).
c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, or parts of speech of words.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, closing flexibly from a range of strategies.

LA.8.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Interpret figures of speech (e.g., verbal irony, puns) in context.
b. Determine the relationship between particular words to better understand each of the words.
c. Distinguish between the connotations of words with similar denotations (e.g., willful, resolute).

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.8.W.1 Create grammatically correct multi-paragraph compositions with varied sentence structures.

a. Apply knowledge of rules for capitalization.
b. Use punctuation (comma, ellipsis, dashes) to indicate a pause or break and an ellipsis to indicate an omission.
c. Explain the function of and use different types of verbals in sentences (e.g., gerunds, participles, infinitives).
d. Distinguish between and use active and passive voice, formal and informal tone, and types of grammatical mood (e.g. indicative, subjunctive, conditional, imperative).
e. Use appropriate parallel structure in words, phrases, and clauses.
f. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tense, number, voice, and mood.

LA.8.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Identify and use resources and inquiry tools to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers.
d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.
e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.8.W.3 Write in a variety of literary forms to convey real or imagined experiences or events in which the development and structure are appropriate to the task, purpose, and audience.

a. Engage and orient the reader by establishing a conflict, situation, or observation, introducing a narrator and/or character(s), and establishing and maintaining point(s) of view; organize an event sequence that unfolds naturally and logically.

b. Use literary techniques (e.g., dialogue, pacing, description, multiple plot lines) to develop experiences, events, characters, and settings.
c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.
d. Use precise words and phrases, descriptive/sensory details, and figurative language to establish mood and tone and convey a vivid picture.
e. Provide a conclusion that is clearly related to and reflects upon what is experienced, observed, or left unresolved over the course of the piece.

LA.8.W.4 Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience.

a. Develop a structure to sequence ideas appropriately; introduce a clear claim where appropriate.
b. Introduce claim(s), acknowledge and distinguish the claim(s) from alternate or supporting claims, and develop a structure in which ideas are grouped logically.
c. Explain and cite relevant evidence from multiple credible sources.
d. Use words, phrases, and key vocabulary to create cohesion and clarify the relationship between the claim(s) and supporting evidence.
e. Adapt style and tone appropriate to the norms and conventions of the task and discipline.
f. Provide a conclusion that follows from and supports the argument(s) presented.

LA.8.W.5 Write informative/explanatory pieces to clearly convey ideas and information in which the development and structure are appropriate to the task, purpose, and audience.

a. Introduce a topic clearly and provide a specific focus; organize ideas, concepts, and information into broader categories or sections including text features, illustrations, and/or multimedia elements.
b. Develop the topic with relevant facts, definitions, concrete details, quotations, and/or other information and examples.
c. Use appropriate transitions and domain-specific vocabulary to clarify relationships among ideas and concepts.
d. Provide a concluding statement or section that follows from the information or explanation(s).

LA.8.W.6 Gather and use credible evidence from multiple trustworthy sources and assess its relevance in answering the research question(s).

a. Integrate evidence into writing by quoting or paraphrasing data and conclusions while avoiding plagiarism.

b. Locate and evaluate the credibility of evidence (e.g., the expertise or motivation of the creator of an information product, potential bias and/or deception) from print and digital sources to generate and answer questions and create new understandings.
c. Select and use appropriate note-taking formats to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source and citing sources within text (e.g., parenthetical and numerical); provide a list of sources using a standard format.
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.8.SL.1 Initiate and participate in structured discussions and collaborations about 8th grade topics and texts.

a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning).
e. Complete a task following complex, multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.8.SL.2 Present claims and findings, emphasizing key ideas in a focused, coherent manner with relevant descriptions, facts, details, and examples to clarify themes or central ideas.

a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 8th grade texts.
b. Convey a perspective with clear reasoning and valid evidence.
c. Analyze the purpose of information being presented and evaluate its motives (e.g., social, commercial, political).
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words).
e. Select and use appropriate visual and/or digital tools to enhance verbal communication and add interest.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- At this grade level, students should be encouraged to reply to questions both orally and in writing using complete sentences.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grades 9-10 Standards

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.
LA.10.RP.1 Analyze the development of two or more implied or explicit themes over the course of a literary text or texts.
LA.10.RP.2 Analyze how the development of characters, settings, and important events contribute to the meaning of the work as a whole.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.10.RP.3 Analyze how the author's choices related to perspective or point of view contribute to the meaning, significance, or aesthetic of a literary text.
LA.10.RP.4 Analyze how an author uses text structure, including the manipulation of time (e.g., foreshadowing, flashbacks) to create literary effects such as mystery, tension, and suspense.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.10.RP.5 Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from the Bible).
LA.10.RP.6 Analyze the implied or stated theme(s) in a literary text to draw conclusions, deepen understanding of self and others, and generate questions for further inquiry.
LA.10.RP.7 Analyze multiple perspectives within and across a wide range of literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.
LA.10.RP.8 Read and comprehend a wide range of literary texts of appropriate complexity at the high end of the 9-10 grade band proficiently, with scaffolding as needed at the high end of the range.

Instructional Considerations

- Students at this grade level should understand distinctions between *universal*, *implied*, and *explicit* themes.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based largely on personal knowledge and experience.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Author's craft* refers to the techniques an author uses to develop and support a theme.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.
LA.10.RI.1 Analyze the development of two or more implied or explicit central ideas over the course of an informational text or texts.
LA.10.RI.2 Analyze how the interaction of individuals, important events, and key ideas contribute to the meaning of the work as a whole.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.10.RI.3 Analyze an author's perspective or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.
LA.10.RI.4 Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.
LA.10.RI.5 Analyze informational texts of historical and/or cultural significance, including their treatment of related topics and concepts.
LA.10.RI.6 Compare and contrast the development of different arguments on the same topic, evaluating the effectiveness and validity of the claims.
LA.10.RI.7 Analyze how an author or speaker unfolds a series of events, ideas, or perspectives within and across a wide range of informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.

LA.10.RI.8 Read and comprehend a wide range of informational texts of appropriate complexity at the high end of the 9-10 grade band proficiently, with scaffolding as needed at the high end of the range.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.
- *Text structure* refers to the primary way an author organizes information in a text. Students at this grade level should be able to identify different structures for different sections within a larger piece.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.10.V.1 Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes.

a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases.
b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis).
c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, parts of speech, or etymology of words.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, closing flexibly from a range of strategies.

LA.10.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in text.
b. Analyze nuances in the meanings of words with similar denotations.

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.10.W.1 Compose grammatically correct multi-paragraph compositions to convey meaning and add variety, interest, and fluency to written and spoken language.

a. Apply knowledge of rules for capitalization.
b. Use a colon to introduce a quotation, definition, or to expand on information in a sentence; use a semicolon with a conjunctive adverb.
c. Apply knowledge of function and usage to revise personal writing while resolving issues of complex or contested usage, consulting appropriate and reliable reference materials.
d. Select and use verbs with appropriate voice and mood.
e. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tense, number, voice, mood, and parallel structure.

LA.10.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Identify and use resources and inquiry tools to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify writing by revising, considering feedback from adults and peers to address the needs of a particular audience and enhance the purpose and structure.
d. Improve and clarify writing by editing and proofreading to enhance style appropriate to audience, purpose, and task.
e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.

LA.10.W.3 Write in a variety of literary forms to convey real or imagined experiences or events, themes, and perspectives in which the development, structure, and style are appropriate to the task, purpose, and audience.

a. Engage and orient the reader by setting out a problem, situation, or observation, establishing multiple points of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.
b. Use literary techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, settings, and/or characters.
c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.
d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters and to establish mood and tone.
e. Provide a conclusion that follows from and reflects upon what is experienced, observed, resolved or left unresolved, and what new implications or questions are raised over the course of the piece.

LA.10.W.4 Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience.

a. Develop a structure to sequence ideas logically; introduce a clear claim where appropriate, and/or distinguish the claim(s) from alternate or supporting claims.
b. Demonstrate understanding and engagement with multiple viewpoints and sources to create and support nuanced claims as a recursive process of inquiry and exploration.
c. Use words, phrases, key vocabulary, and varied syntax to clarify relationships between claim(s), counterclaim(s), and supporting evidence.
d. Adapt style and tone appropriate to the norms and conventions of the task and discipline.
e. Provide a conclusion that follows from and supports the argument(s) presented.

LA.10.W.5 Write informative/explanatory pieces to clearly convey ideas, information, and concepts in which the development and structure are appropriate to the task, discipline, purpose, and audience.

a. Introduce a topic clearly and provide a specific focus; organize complex ideas, concepts, and information to make clear connections and distinctions including text features, illustrations, and/or multimedia elements.
b. Develop the topic with relevant, sufficient facts, extended definitions, concrete details, quotations, and/or other information and examples.
c. Use appropriate and varied transitions, domain-specific vocabulary, and varied syntax to manage the complexity of the topic.
d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline.

e. Provide a conclusion that follows from and supports the information or explanations and articulates the implications and/or significance of the topic.

LA.10.W.6 Gather and use credible evidence from multiple authoritative sources and assess its relevance in answering the research question(s).

a. Integrate information and evidence into writing selectively, accurately quoting or paraphrasing data and conclusions to maintain the flow of ideas while avoiding plagiarism.
b. Locate and evaluate the credibility of evidence (e.g., the expertise or motivation of the creator of an information product, potential bias and/or deception, and social, political, and/or historical perspectives) from print and digital sources to generate and answer questions and create new understandings.
c. Select and use appropriate note-taking formats to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source; cite sources using a variety of in-text citations to enhance fluency; develop a list of sources that conforms to a style guide appropriate to the discipline (e.g. MLA, APA, Chicago).
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g. safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.10.SL.1 Initiate and participate in structured discussions and collaborations about grade-level topics and texts.

a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning).
e. Complete a task following complex, multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence and in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.10.SL.2 Present information, findings, and supporting evidence clearly and concisely and in which the organization, development, and style are appropriate to a variety of tasks, purposes, and audiences.

a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, intonation) for a variety of purposes and situations, including interpreting grade-level texts.
b. Convey a perspective with clear reasoning and valid evidence.
c. Analyze the purpose of information being presented, evaluate its motives (e.g., social, commercial, political), and determine its credibility.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words).
e. Select and use appropriate visual and/or digital tools to enhance verbal communication and add interest.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grades 11-12 Standards

READING PROSE AND POETRY

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary text.
LA.12.RP.1 Evaluate the development of two or more implied or explicit themes over the course of a literary text or texts.
LA.12.RP.2 Analyze the development and interaction of literary elements such as characterization, setting, and plot, and how they contribute to the meaning of the work as a whole.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary text.
LA.12.RP.3 Evaluate an author's use of point of view and how it contributes to the meaning, significance, or aesthetic of a literary text.
LA.12.RP.4 Evaluate how an author develops structure in a literary text to contribute to its overall meaning and aesthetic impact.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary text.
LA.12.RP.5 Apply knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of literature, including how two or more texts from the same period treat similar themes or topics.
LA.12.RP.6 Evaluate themes within and across literary texts to draw conclusions, deepen understanding of self and others, and generate questions for further inquiry.
LA.12.RP.7 Analyze and evaluate multiple perspectives within and across a wide range of literary texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary text independently and proficiently.
LA.12.RP.8 Read and comprehend a wide range of literary texts in the 12-CCR grade band independently and proficiently.

Instructional Considerations

- Students at this grade level should understand distinctions between *universal*, *implied*, and *explicit* themes.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based largely on personal knowledge and experience.
- At all grade levels, students should read paired, conceptually-related (by topic, theme, and/or genre) literary and informational texts.
- *Author's craft* refers to the techniques an author uses to develop and support a theme.

READING INFORMATIONAL TEXT

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level informational text.
LA.12.RI.1 Evaluate the development of central ideas over the course of an informational text or texts.
LA.12.RI.2 Synthesize and evaluate how the interaction of individuals, important events, and key ideas contribute to the meaning of the work as a whole.

Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level informational text.
LA.12.RI.3 Evaluate an author's perspective or purpose and how it contributes to the meaning, significance, or aesthetic of an informational text.
LA.12.RI.4 Evaluate the effectiveness of the structure an author uses in an exposition or argument, including whether the structure makes the points clear, convincing, and engaging.

Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level informational text.
LA.12.RI.5 Analyze seventeenth-, eighteenth-, and nineteenth-century works of historical and literary significance for their central ideas, purposes, and rhetorical style.
LA.12.RI.6 Compare and contrast the development of multiple arguments in texts of related topics, evaluating the effectiveness and validity of the claims.
LA.12.RI.7 Analyze and evaluate multiple perspectives within and across a wide range of informational texts.

Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level informational text independently and proficiently.

LA.12.RI.8 Read and comprehend a wide range of informational texts in the 12-CCR grade band independently and proficiently.

Instructional Considerations

- A *claim* refers to an author's primary argument and is supported by textual evidence.
- *Author's craft* refers to the techniques an author uses to develop and support a claim.
- *Point of view* refers to the vantage point from which a story is told, while *perspective* is an author's attitude or belief that is based on personal knowledge and/or experience.
- *Text structure* refers to the primary way an author organizes information in a text. Students at this grade level should be able to identify different structures for different sections within a larger piece.

VOCABULARY

Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.

LA.12.V.1 Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes.

a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases.
b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable).
c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, parts of speech, etymology, or standard usage of words.

Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, closing flexibly from a range of strategies.

LA.12.V.2 Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text.

a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in text.
b. Analyze nuances in the meanings of words with similar denotations.

Instructional Considerations

- *Academic vocabulary* refers to words likely to appear in a variety of content area texts, at or above grade-level, and typically requires explicit instruction. Students should be encouraged to use newly acquired terms frequently in speaking and writing.
- The vast majority of academic vocabulary taught should derive from complex texts—a careful review of texts for challenging words that are central to understanding the meaning of the text, including figurative language, should determine which vocabulary is taught explicitly (sometimes in advance of reading).
- Include a word study component that includes prefixes, root words, and suffixes to accompany text-based methods of vocabulary development.
- Reading aloud to students using texts that are two grade levels higher than their reading level is an evidence-based practice for activating prior knowledge and building vocabulary.

WRITING

Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.

LA.12.W.1 Compose grammatically correct multi-paragraph compositions to convey meaning and to add variety, interest, and fluency to written and spoken language.

a. Demonstrate understanding that usage is a matter of convention, can evolve, and is sometimes contested.
b. Apply knowledge of function and usage to revise personal and peer writing while resolving issues of complex or contested usage, consulting appropriate and reliable reference materials.

LA.12.W.2 Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline.

a. Identify and use resources and inquiry tools to plan, organize, and draft writing.
b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity.
c. Improve and clarify writing by revising, considering feedback from adults and peers to address the needs of a particular audience and enhance the purpose and structure.
d. Improve and clarify writing by editing and proofreading to enhance style appropriate to audience, purpose, and task.
e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.

Modes of Writing | Write in a variety of modes for multiple purposes and audiences across disciplines.

LA.12.W.3 Write in a variety of literary forms to convey real or imagined experiences or events, themes, and perspectives in which the development, structure, and style are appropriate to the task, purpose, and discipline.

a. Engage and orient the reader by setting out a problem, situation, or observation, establishing multiple points of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events.
b. Use literary techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, settings, and/or characters.
c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole.
d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters and to set mood and tone.

e. Provide a conclusion that follows from and reflects upon what is experienced, observed, resolved or left unresolved, and what new implications or questions are raised over the course of the piece.

LA.12.W.4 Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience.

a. Develop a structure to sequence ideas logically; introduce a clear claim where appropriate, and/or distinguish the claim(s) from alternate or supporting claims.
b. Demonstrate understanding and engagement with multiple viewpoints and sources to create and support nuanced claims as a recursive process of inquiry and exploration.
c. Use words, phrases, key vocabulary, and varied syntax to clarify relationships between claim(s), counterclaim(s), and supporting evidence.
d. Adapt style and tone appropriate to the norms and conventions of the task and discipline.
e. Provide a conclusion that follows from and supports the argument(s) presented.

LA.12.W.5 Write informative/explanatory pieces to clearly convey ideas, information, and concepts in which the development and structure are appropriate to the task, discipline, purpose, and audience.

a. Introduce a topic clearly and provide a specific focus; organize complex ideas, concepts, and information to make clear connections and distinctions including text features, illustrations, and/or multimedia elements.
b. Develop the topic thoroughly with relevant, sufficient facts, extended definitions, concrete details, quotations, and/or other information and examples.
c. Use appropriate and varied transitions, domain-specific vocabulary, and varied syntax to manage the complexity of the topic.
d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline.
e. Provide a conclusion that follows from and supports the information or explanations and articulates the implications and/or significance of the topic.

LA.12.W.6 Gather and use credible evidence from multiple authoritative sources, evaluate the strengths and limitations of sources in terms of the task, purpose, and audience, and assess their relevance in answering the research question(s).

a. Integrate information and evidence into writing selectively, accurately quoting or paraphrasing data and conclusions to maintain the flow of ideas while avoiding plagiarism.

b. Locate and evaluate the credibility of evidence (e.g., the expertise or motivation of the creator of an information product, potential bias and/or deception, and social, political, and/or historical perspectives) from print and digital sources to generate and answer questions and create new understandings.
c. Select and use appropriate note-taking formats to collect and organize information.
d. Demonstrate academic integrity by avoiding overreliance on any one source; cite sources using a variety of in-text citations to enhance fluency; develop a list of sources that conforms to a style guide appropriate to the discipline (e.g., MLA, APA, Chicago).
e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g. safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

Instructional Considerations

- *Grammar*, or the rules by which sentences are constructed, is contrasted from *usage*, which is the way words and phrases are commonly used. All dialects of language are grammatical and follow rules; exceptions to the uses of language that do not conform to standard English should be given instructional consideration. *Mechanics* refers to the norms of written language only and includes spelling, punctuation, and capitalization. Mechanics may change according to time, place, and purpose.
- The standards contain four broad modes of writing—**Narrative**, **Opinion (K-5)**, **Informative/Explanatory**, and **Research**.
- *Narrative* forms include but are not limited to: short stories, personal narratives, fables, myths, tall tales, fairy tales, plays, poetry, autobiography, biography, essays, screenplays, narrative nonfiction, realistic fiction, historical accounts, memoirs, nonlinear narratives, legends, epics, and ballads.
- *Opinion*, or argumentative, forms include but are not limited to: personal opinion pieces, appeals, editorials, proposals, personal essays, speeches, letters, literary analyses, and persuasive and op-ed pieces.
- *Informative/explanatory* forms include, but are not limited to: descriptive essays, comparative analyses, historical reports, manuals, process pieces, journal, magazine, and newspaper articles, memorandums, scientific reports, compare/contrast, problem/solution, and cause/effect essays.

SPEAKING AND LISTENING

Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

LA.12.SL.1 Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.

a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information.
b. Demonstrate interpretation of verbal and non-verbal messages in a conversation.
c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives.
d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning).
e. Complete a task following complex, multi-step directions.

Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence and in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

LA.12.SL.2 Present information, findings, and supporting evidence effectively and in which the organization, development, and style are appropriate to a variety of tasks, purposes, and audiences.

a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, intonation) for a variety of purposes and situations, including interpreting grade-level texts.
b. Convey a perspective with clear reasoning and valid evidence.
c. Evaluate the purpose of information being presented, its motives (e.g., social, commercial, political), and determine its credibility.
d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words).
e. Make strategic use of appropriate visual and/or digital tools to enhance understanding of findings, reasoning, and evidence for specific audiences.

Instructional Considerations

- Instruction of speaking and listening skills should be purposeful, directed, and specific as well as integrated throughout structured classroom activities and routines.
- Appropriate visual and/or digital tools include, but are not limited to: graphic images, drawings, artwork, photographs, audio and video pieces, charts, tables, sound effects, animation, and infographics.

Grades K-12 Vertical Progressions

K-5 Foundations of Reading Concepts of Print: Standard 1	
Concepts of Print | Demonstrate knowledge of the organization and basic concepts of print.	
Grade	**Indicator(s)**
5	*Mastered at Grade 2 and blended with other skills at this grade level.*
4	*Mastered at Grade 2 and blended with other skills at this grade level.*
3	*Mastered at Grade 2 and blended with other skills at this grade level.*
2	**LA.2.F.1** Demonstrate knowledge of the organization and basic concepts of print. a. Recognize the distinguishing features of a paragraph including that multiple sentences may be used to form a paragraph and the author may indent or skip a line to signal a new paragraph.
1	**LA.1.F.1** Demonstrate knowledge of the organization and basic concepts of print. a. Recognize the distinguishing features of a sentence.
K	**LA.K.F.1** Demonstrate knowledge of the organization and basic concepts of print. a. Identify all upper and lowercase letters of the alphabet in isolation and in connected text. b. Recognize that spoken words are represented in written language by specific sequences of letters, and that print carries meaning. c. Demonstrate understanding that words are separated by spaces in print; demonstrate understanding of one-to-one correspondence between voice and print. d. Demonstrate knowledge that print reads from left to right, top to bottom, and page by page.

K-5 Foundations of Reading Phonological Awareness: Standard 2	
Phonological Awareness | Demonstrate phonological awareness through oral activities.	
Grade	**Indicator(s)**
5	*Mastered at Grade 2 and blended with other skills at this grade level.*
4	*Mastered at Grade 2 and blended with other skills at this grade level.*
3	*Mastered at Grade 2 and blended with other skills at this grade level.*
2	**LA.2.F.2** Demonstrate understanding of advanced phonemic awareness skills in spoken words, syllables, and sounds (phonemes). a. Identify, segment, and blend phonemes in single-syllable, spoken five- and six-phoneme words including words with blends, digraphs, and trigraphs. b. Substitute sounds in words with five or more phonemes. c. Delete initial and final phonemes in words including words with blends.
1	**LA.1.F.2** Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Identify, segment and blend phonemes in single syllable spoken three- and four-phoneme words including words with blends. b. Delete initial and final phonemes in words. c. Substitute phonemes in spoken words to build new words in single-syllable words with no blends. d. Add or substitute individual sounds (phonemes in simple, one-syllable words) to make new words (e.g., "Say 'map.' Say it again and instead of /p/ say /t/. What is the new word? 'Mat'").
K	**LA.K.F.2** Demonstrate understanding of spoken words, syllables, and sounds (phonemes). a. Segment and count spoken sentences into words. b. Recognize and begin to produce oral rhymes. c. Count, produce, and segment spoken words into syllables and identify syllable parts. d. Blend onsets and rimes to form simple words (e.g., v-an, gr-ab). e. Delete part of a syllable within a spoken word including compound words (e.g., "Say 'parsnip.' Say it again but don't say 'par;' e.g., "Say 'cowboy.' Say it again but don't say 'cow'"). f. Isolate and pronounce the initial, medial vowel, and final sounds (phonemes) in two- and three-phoneme (VC or CVC) words, excluding CVC words ending with /l/, /r/, or /x/.

K-5 Foundations of Reading
Phonics and Word Analysis: Standard 3

Phonics and Word Analysis | Demonstrate phonetic and word analysis knowledge and apply decoding skills to isolated words and in connected text.

Grade	Indicators
5	**LA.5.F.3** Know and apply phonics and word analysis skills in decoding and encoding (spelling) words. a. Decode words with common Greek derived words. b. Use combined knowledge of letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to decode accurately unfamiliar multisyllabic words in and out of context.
4	**LA.4.F.3** Know and apply phonics and word analysis skills in decoding and encoding (spelling) words. a. Decode words with common Latin derived words including Latin plurals. b. Use combined knowledge of letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in and out of context.
3	**LA.3.F.3** Know and apply phonics and word analysis skills in decoding and encoding (spelling) words. a. Decode words with common Latin suffixes. b. Decode words with common derivational suffixes and describe how they turn words into different parts of speech. c. Decode multisyllabic words.
2	**LA.2.F.3** Know and apply phonics and word analysis skills in decoding and encoding (spelling) words. a. Decode words with variable vowel teams and vowel diphthongs. b. Decode regularly spelled two-syllable words with long vowels. c. Decode words with open and closed syllables and consonant -le. d. Decode words with common Anglo roots and affixes. e. Decode words with silent letter combinations.
1	**LA.1.F.3** Know and apply phonics and word analysis skills in decoding and encoding (spelling) words. a. Decode and encode words using knowledge of sound-spelling correspondence for common consonant digraphs, tri-graphs, and blends. b. Decode and encode simple words with r-controlled vowels. c. Decode and encode regularly spelled one-syllable words. d. Decode and encode final -e and common vowel team conventions for representing long vowel sounds. e. Decode and encode two-syllable words with regular patterns by breaking the words into syllables. f. Decode and encode words with inflectional endings. g. Use knowledge that every syllable must have a vowel sound to determine the number of syllables in a printed word. h. Recognize and read grade-appropriate, irregularly spelled words.
K	**LA.K.F.3** Know and apply phonics and word analysis skills in decoding and encoding (spelling) words. a. Demonstrate basic knowledge of one-to-one sound-to-letter correspondences by producing the primary or many of the most frequent sounds for each consonant. b. Demonstrate the long and short sounds with common spellings (graphemes) for the five major vowels.

	c. Decode consonant-vowel-consonant (CVC) words. d. Encode consonant-vowel-consonant (CVC) words. e. Distinguish between similarly spelled words by identifying the sounds of the letters that differ.

K-5 Foundations of Reading Fluency: Standard 4	
Fluency | Read grade-level texts with sufficient accuracy and fluency to support comprehension.	
Grade	**Indicators**
5	**LA.5.F.4** Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level texts to support comprehension. a. Read a variety of texts accurately using appropriate rate, expression/prosody, and intonation to reflect meaning. b. Adjust pace and prosody based on the purpose, complexity, form, and/or style of a text.
4	**LA.4.F.4** Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level texts to support comprehension. a. Read a variety of texts accurately using appropriate rate, expression/prosody, and intonation to reflect meaning. b. Adjust pace and prosody based on the purpose, complexity, form, and/or style of text.
3	**LA.3.F.4** Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level texts to support comprehension. a. Read a variety of texts accurately using appropriate rate, expression/prosody, and intonation to reflect the meaning of text. b. Adjust pace and prosody based on the purpose, complexity, form, and/or style of text. c. Read grade level high-frequency words with automaticity and accuracy (e.g., Fry or Dolch words or those included in instructional materials).
2	**LA.2.F.4** Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level text to support comprehension. a. Read a variety of texts accurately using appropriate rate, expression, and intonation to reflect meaning. b. Read grade level high-frequency words with automaticity and accuracy (e.g., Fry or Dolch words or those included in instructional materials).
1	**LA.1.F.4** Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level text to support comprehension. a. Read decodable text accurately with appropriate rate, intonation, and expression/prosody to reflect meaning. b. Read grade level high-frequency words with automaticity and accuracy (e.g., Fry or Dolch words or those included in instructional materials).
K	**LA.K.F.4** Develop accuracy, phrasing, and expression/prosody while reading a variety of grade-level text to support comprehension. a. Recognize upper and lowercase letters automatically and accurately. b. Read decodable consonant-vowel-consonant (CVC) words with automaticity and accuracy. c. Read grade level high-frequency words with automaticity and accuracy (e.g., Fry or Dolch words or those included in instructional materials).

K-12 Reading Comprehension
Central Ideas and Details: Standard 1

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary and informational texts.

Grade	Prose and Poetry	Informational Text
11-12	**LA.12.RP.1** Evaluate the development of two or more implied or explicit themes over the course of a literary text or texts.	**LA.12.RI.1** Evaluate the development of central ideas over the course of an informational text or texts.
9-10	**LA.10.RP.1** Analyze the development of two or more implied or explicit themes over the course of a literary text or texts.	**LA.10.RI.1** Analyze the development of two or more implied or explicit central ideas over the course of an informational text or texts.
8	**LA.8.RP.1** Determine two or more implied or explicit themes of a text and how they develop over the course of a literary text, including their relationship to supporting ideas.	**LA.8.RI.1** Determine two or more implied or explicit central ideas of a text and how they develop over the course of an informational text, including their relationship to supporting ideas.
7	**LA.7.RP.1** Determine two or more implied or explicit themes in a literary text and how they are supported with key details.	**LA.7.RI.1** Determine two or more implied or explicit central ideas of an informational text and how they are supported with key details.
6	**LA.6.RP.1** Determine the implied or explicit theme and how it develops over the course of a literary text.	**LA.6.RI.1** Determine the implied or explicit central idea and how it develops over the course of an informational text.
5	**LA.5.RP.1** Explain the theme in a literary text and how it is conveyed through key details.	**LA.5.RI.1** Explain the central idea in an informational text and how it is conveyed through key details.
4	**LA.4.RP.1** Determine a theme in a literary text and how it is conveyed through key details.	**LA.4.RI.1** Determine the central idea of an informational text and how it is conveyed through key details.
3	**LA.3.RP.1** Identify the central message or lesson in a literary text and explain how key details support that idea.	**LA.3.RI.3** Determine and explain the author's purpose in an informational text.
2	**LA.2.RP.1** Recount narratives and determine their central message, lesson, or moral.	**LA.2.RI.1** Identify the main topic and key details in a multi-paragraph text.
1	**LA.1.RP.1** Retell familiar stories, including key details, and demonstrate understanding of their central message or lesson from a literary text.	**LA.1.RI.1** Identify the main topic and key details in an informational text.
K	**LA.K.RP.1** With prompting and support, orally retell familiar stories, including key details, and demonstrate understanding of their central message or lesson.	**LA.K.RI.1** With prompting and support, identify the main topic and key details in an informational text.

K-12 Reading Comprehension
Central Ideas and Details: Standard 2

Central Ideas and Details | Citing relevant and thorough textual evidence to support ideas, evaluate the development of themes or central ideas in grade-level literary and informational texts.

Grade	Prose and Poetry	Informational Text
11-12	**LA.12.RP.2** Analyze the development and interaction of literary elements such as characterization, setting, and plot, and how they contribute to the meaning of the work as a whole.	**LA.12.RI.2** Synthesize and evaluate how the interaction of individuals, important events, and key ideas contribute to the meaning of the work as a whole.
9-10	**LA.10.RP.2** Analyze how the development of characters, settings, and important events contribute to the meaning of the work as a whole.	**LA.10.RI.2** Analyze how the interaction of individuals, important events, and key ideas contribute to the meaning of the work as a whole.
8	**LA.8.RP.2** Analyze how particular events, lines of dialogue, or descriptive details develop the plot, reveal aspects of characters, or create meaning.	**LA.8.RI.2** Analyze how particular events, interactions between individuals, or key facts and details contribute to meaning.
7	**LA.7.RP.2** Analyze how particular events, lines of dialogue, or descriptive details develop the plot, reveal aspects of characters, or create meaning.	**LA.7.RI.2** Analyze the relationships and interactions between individuals, events, and/or ideas or concepts, drawing on specific supporting details in an informational text.
6	**LA.6.RP.2** Explain how a plot unfolds in a literary text as well as how the characters respond to events or changes as the plot moves toward a resolution.	**LA.6.RI.2** Explain how a key individual, event, or idea or concept is introduced and developed, drawing on specific supporting details in an informational text.
5	**LA.5.RP.2** Compare and contrast two or more characters, settings, or events in a literary text or texts.	**LA.5.RI.2** Compare and contrast two or more individuals, events, scientific ideas or concepts, or steps in a process, drawing on supporting details from a text or texts.
4	**LA.4.RP.2** Analyze a character, setting, or event in a literary text, drawing on specific details such as a character's thoughts, words, or actions.	**LA.4.RI.2** Analyze an individual, event, scientific idea or concept, or steps in a process.
3	**LA.3.RP.2** Explain how characters respond to major events and challenges in a literary text.	**LA.3.RI.2** Explain the relationship between individuals, historical events, scientific ideas or concepts, or steps in a process.
2	**LA.2.RP.2** Describe characters and how they interact with one another.	**LA.2.RI.2** Describe the connections between individuals, historical events, scientific ideas, or steps in a process.
1	**LA.1.RP.2** Identify the main character(s), setting, and important events, drawing on key details in a literary text.	**LA.1.RI.2** Identify key individuals, events, or pieces of information in an informational text.
K	**LA.K.RP.2** With prompting and support, identify main character(s), setting, and important events in a literary text.	**LA.K.RI.1** With prompting and support, identify the main topic and key details in an informational text.

K-12 Reading Comprehension Author's Craft: Standard 3		
Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary and informational text.		
Grade	**Prose and Poetry**	**Informational Text**
11-12	**LA.12.RP.3** Evaluate an author's use of point of view and how it contributes to the meaning, significance, or aesthetic of a literary text.	**LA.12.RI.3** Evaluate an author's perspective or purpose and how it contributes to the meaning, significance, or aesthetic of an informational text.
9-10	**LA.10.RP.3** Analyze how the author's choices related to perspective or point of view contribute to the meaning, significance, or aesthetic of a literary text.	**LA.10.RI.3** Analyze an author's perspective or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.
8	**LA.8.RP.3** Analyze how an author establishes, conveys, and contrasts the points of view of the audience and the characters to create effects such as suspense, humor, or dramatic irony in a literary text.	**LA.8.RI.3** Analyze how an author establishes, conveys, and contrasts perspective or purpose in a text and how the author acknowledges and responds to conflicting evidence or viewpoints.
7	**LA.7.RP.3** Analyze how an author establishes, conveys, and contrasts the points of view of different characters or narrators in a literary text.	**LA.7.RI.3** Analyze how an author establishes or conveys a perspective or purpose and distinguishes it from that of others.
6	**LA.6.RP.3** Explain how an author establishes and conveys the point(s) of view of a narrator or speaker in a literary text.	**LA.6.RI.3** Explain how an author establishes and conveys a perspective or purpose in an informational text.
5	**LA.5.RP.3** Describe how a narrator or speaker's point of view influences the meaning of a literary text.	**LA.5.RI.3** Determine the author's purpose(s) and describe how the author's perspective (e.g., beliefs, assumptions, biases) influences the meaning of an informational text.
4	**LA.4.RP.3** Distinguish reader perspective from the perspective and point of view of the narrator or the characters in a literary text.	**LA.4.RI.3** Compare and contrast authors' perspectives in multiple informational texts of the same topic.
3	**LA.3.RP.3** Determine and explain the point of view in a literary text.	**LA.3.RI.3** Determine and explain the author's purpose in an informational text.
2	**LA.2.RP.3** Determine and explain who is telling a story within and across literary texts.	**LA.2.RI.3** Determine and explain the author's purpose in an informational text, including what the author wants to answer, explain, or describe.
1	**LA.1.RP.3** Explain the difference between the roles of author and narrator or speaker in a literary text.	**LA.1.RI.3** Define the role of the author and illustrator in presenting the ideas or information in a text.
K	**LA.K.RP.3** With prompting and support, define the role of author and illustrator in a literary text.	**LA.K.RI.3** With prompting and support, define the role of author and illustrator in presenting the ideas or information in a text.

K-12 Reading Comprehension Author's Craft: Standard 4		
Author's Craft | Citing relevant and thorough evidence to support ideas, evaluate the development and interaction of individuals, ideas, and events in grade-level literary and informational text.		
Grade	**Prose and Poetry**	**Informational Text**
11-12	**LA.12.RP.4** Evaluate how an author develops structure in a literary text to contribute to its overall meaning and aesthetic impact.	**LA.12.RI.4** Evaluate the effectiveness of the structure an author uses in an exposition or argument, including whether the structure makes the points clear, convincing, and engaging.
9-10	**LA.10.RP.4** Analyze how an author uses text structure, including the manipulation of time (e.g., foreshadowing, flashbacks) to create literary effects such as mystery, tension, and suspense.	**LA.10.RI.4** Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).
8	**LA.8.RP.4** Compare and contrast the structure of two or more literary texts and how their structures contribute to style and meaning.	**LA.8.RI.4** Compare and contrast the structure of a specific paragraph in an informational text, including the role of particular sentences in developing and refining a key concept.
7	**LA.7.RP.4** Analyze the structure of a literary text, and how the structure contributes to its theme(s) and meaning.	**LA.7.RI.4** Analyze how the major sections of text contribute to the development of ideas in an informational text.
6	**LA.6.RP.4** Analyze how a sequence of chapters, scenes, or stanzas contribute to the development of literary elements (e.g., theme, setting, or plot).	**LA.6.RI.4** Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
5	**LA.5.RP.4** Explain how a sequence of chapters, scenes, or stanzas fit together to provide the overall structure of literary texts.	**LA.5.RI.4** Explain how text features (titles, headings, table of contents, glossaries, captions, graphs, maps, and/or other visuals) contribute to the meaning of texts.
4	**LA.4.RP.4** Compare and contrast the structural elements of literary texts (e.g., dramas, narratives, and poems).	**LA.4.RI.4** Describe the overall structure of an informational text and how it contributes to meaning.
3	**LA.3.RP.4** Explain how sections of a literary text (e.g., chapters, scenes, stanzas) build on one another and contribute to meaning.	**LA.3.RI.4** Explain how text features (titles, headings, table of contents, glossaries, captions, graphs, maps, and/or other visuals) contribute to meaning.
2	**LA.2.RP.4** Describe the basic structure of a literary text, including how literary elements are introduced and developed and conflicts are resolved.	**LA.2.RI.4** Explain how text features (titles, headings, table of contents, glossaries, captions, graphs, maps, and/or other visuals) contribute to the meaning of texts.
1	**LA.1.RP.4** Identify the basic characteristics of literary text, drawing on a wide range of text types.	**LA.1.RI.4** Use text features (titles, headings, visuals) to predict or confirm the topic of a text.
K	**LA.K.RP.4** With prompting and support, identify the basic characteristics of literary text.	**LA.K.RI.4** With prompting and support, use text features (titles, headings, visuals) to predict or confirm the topic of a text.

K-12 Reading Comprehension Knowledge and Ideas: Standard 5		
Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary and informational text.		
Grade	**Prose and Poetry**	**Informational Text**
11-12	**LA.12.RP.5** Apply knowledge of eighteenth-, nineteenth- and early-twentieth-century foundational works of literature, including how two or more texts from the same period treat similar themes or topics.	**LA.12.RI.5** Analyze seventeenth-, eighteenth-, and nineteenth-century works of historical and literary significance for their central ideas, purposes, and rhetorical style.
9-10	**LA.10.RP.5** Analyze how an author draws on and transforms source material in a specific work (e.g., how Shakespeare treats a theme or topic from the Bible).	**LA.10.RI.5** Analyze informational texts of historical and/or cultural significance, including their treatment of related topics and concepts.
8	**LA.8.RP.5** Analyze how a modern work of fiction draws on themes, patterns of events, or character types from myths, traditional stories, or religious works.	**LA.8.RI.5** Analyze how two or more texts provide conflicting information on the same topic, including where the texts disagree on matters of evidence or interpretation.
7	**LA.7.RP.5** Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period.	**LA.7.RI.5** Analyze how the major sections of text contribute to the development of ideas in an informational text.
6	**LA.6.RP.5** Compare and contrast texts in different forms or genres (e.g., stories and poems, historical novels, fantasy stories) and their treatment of similar themes and topics.	**LA.6.RI.5** Compare and contrast one author's presentation of information with that of another.
5	**LA.5.RP.5** Compare and contrast the treatment of themes and topics in literary texts of the same genre.	**LA.5.RI.5** Integrate information from multiple texts on the same topic in order to demonstrate knowledge of the topic.
4	**LA.4.RP.5** Compare and contrast the treatment of similar themes and topics and patterns of events in literary texts by different authors or from different cultures.	**LA.4.RI.5** Integrate information from multiple informational texts on the same topic in order to demonstrate knowledge of the topic.
3	**LA.3.RP.5** Compare and contrast the themes, settings, and plots of literary texts written by the same author about the same or similar characters (e.g. books from a series).	**LA.3.RI.5** Compare and contrast the two most important ideas and key details presented by multiple informational texts on the same topic.
2	**LA.2.RP.** Compare and contrast two or more versions of the same literary text by different authors or from different cultures.	**LA.2.RI.5** Compare and contrast the two most important ideas presented by two informational texts on the same topic.
1	**LA.1.RP.5** Compare and contrast the experiences of characters in familiar stories.	**LA.1.RI.5** Identify basic similarities and differences between two informational texts on the same topic.
K	**LA.K.RP.5** With prompting and support, compare and contrast the experiences of characters in familiar stories.	**LA.K.RI.5** With prompting and support, identify basic similarities and differences between two informational texts on the same topic.

K-12 Reading Comprehension Knowledge and Ideas: Standard 6		
Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary and informational text.		
Grade	**Prose and Poetry**	**Informational Text**
11-12	**LA.12.RP.6** Evaluate themes within and across literary texts to draw conclusions, deepen understanding of self and others, and generate questions for further inquiry.	**LA.12.RI.6** Compare and contrast the development of multiple arguments in texts of related topics, evaluating the effectiveness and validity of the claims.
9-10	**LA.10.RP.6** Analyze the implied or stated theme(s) in a literary text to draw conclusions, deepen understanding of self and others, and generate questions for further inquiry.	**LA.10.RI.6** Compare and contrast the development of different arguments on the same topic, evaluating the effectiveness and validity of the claims.
8	**LA.8.RP.6** Synthesize the implied or stated theme(s) in a literary text to draw conclusions and deepen understanding of self and others.	**LA.8.RI.6** Analyze the development of an argument and evaluate the effectiveness of the type(s) of reasoning used to support the argument.
7	**LA.7.RP.6** Synthesize the implied or stated theme(s) in a literary text to draw conclusions and deepen understanding of self and others.	**LA.7.RI.6** Analyze the development of an argument and identify the type(s) of reasoning used to support the argument.
6	**LA.6.RP.6** Analyze a literary text to answer and develop inferential and evaluative questions to enhance the comprehension of self and others, quoting or paraphrasing specific evidence from the text.	**LA.6.RI.6** Analyze the development of an argument and identify the type(s) of reasoning used to support the argument.
5	**LA.5.RP.6** Analyze a literary text to answer and develop inferential questions to enhance the comprehension of self and others, quoting or paraphrasing specific evidence from the text.	**LA.5.RI.6** Analyze the development of an author's claim(s) and how supporting evidence is used to support the claim(s).
4	**LA.4.RP.6** Explain what the text says explicitly and draw inferences when asking or answering questions, quoting or paraphrasing specific evidence from the text as appropriate.	**LA.4.RI.6** Identify an author's claim(s) and explain how the author supports the claim in the text.
3	**LA.3.RP.6** Explain what the text says explicitly and draw inferences when asking and answering questions.	**LA.3.RI.6** Identify an author's claim(s) and explain how the author supports the claim in the text.
2	**LA.2.RP.6** Ask and answer literal (e.g., recall/details) and simple inferential (e.g., why or how) questions about key details in a literary text.	**LA.2.RI.6** Explain an author's opinion(s) and supporting evidence from the text.
1	**LA.1.RP.6** Ask and answer questions about key details in a literary text.	**LA.1.RI.6** Identify an author's opinion(s) about a text.
K	**LA.K.RP.6** With prompting and support, ask and answer questions about key details in a literary text.	**LA.K.RI.6** With prompting and support, explain the difference between facts and opinions about a topic.

K-12 Reading Comprehension Knowledge and Ideas: Standard 7		
Knowledge and Ideas | Citing relevant and thorough textual evidence to support ideas, evaluate how an author's perspective or use of point of view shapes the style and meaning of grade-level literary and informational text.		
Grade	**Prose and Poetry**	**Informational Text**
11-12	**LA.12.RP.7** Analyze and evaluate multiple perspectives within and across a wide range of literary texts.	**LA.12.RI.7** Analyze and evaluate multiple perspectives within and across a wide range of informational texts.
9-10	**LA.10.RP.7** Analyze multiple perspectives within and across a wide range of literary texts.	**LA.10.RI.7** Analyze how an author or speaker unfolds a series of events, ideas, or perspectives within and across a wide range of informational texts.
8	**LA.8.RP.7** Analyze regional, national, international, and/or multicultural perspectives to make connections among and distinctions between characters or ideas within and across a range of literary texts.	**LA.8.RI.7** Analyze regional, national, international, and/or multicultural perspectives to make connections among and distinctions between individuals or ideas within and across a range of informational texts.
7	**LA.7.RP.7** Compare and contrast regional, national, and/or multicultural perspectives by explaining how an author or narrator/speaker introduces, illustrates, or describes characters or individuals, events, and ideas within and across literary texts.	**LA.7.RI.7** Compare and contrast regional, national, and/or multicultural perspectives by explaining how an author or narrator/speaker introduces, illustrates, or describes characters or individuals, events, and ideas within and across informational texts.
6	**LA.6.RP.7** Compare and contrast regional, national, and/or multicultural perspectives within and across literary texts.	**LA.6.RI.7** Compare and contrast regional, national, and/or multicultural perspectives within and across informational texts.
5	**LA.5.RP.7** Explain the relationships between two or more characters, events, or ideas in a range of literary texts.	**LA.5.RI.7** Explain the relationships between two or more individuals, events, ideas, or concepts in a range of informational texts.
4	**LA.4.RP.7** Explain an author or narrator/speaker's treatment of similar themes and/or patterns of events in a wide range of literary texts.	**LA.4.RI.7** Explain an author or speaker's treatment of similar topics, and/or patterns of events in a wide range of informational texts.
3	**LA.3.RP.7** Compare and contrast themes, topics, and/or patterns of events in a range of literary texts.	**LA.3.RI.7** Compare and contrast topics and/or patterns of events in a range of informational texts.
2	**LA.2.RP.7** Compare and contrast topics in a variety of literary texts to build knowledge of cultures (e.g., history, values, beliefs, and behaviors).	**LA.2.RI.7** Compare and contrast topics in a variety of informational texts to build knowledge of cultures (e.g., history, values, beliefs, and behaviors).
1	**LA.1.RP.7** With prompting and support, make connections between own experiences and other cultures in literary texts.	**LA.1.RI.7** With prompting and support, make connections between own experiences and other cultures in informational texts.
K	**LA.K.RP.7** With prompting and support, make connections between own experiences and other cultures in literary texts.	**LA.K.RI.7** With prompting and support, make connections between own experiences and other cultures in informational texts.

K-12 Reading Comprehension Range of Reading and Level of Text Complexity		
Range of Reading and Level of Text Complexity | Read and comprehend complex, grade-level literary and informational texts independently and proficiently.		
Grade	**Prose and Poetry**	**Informational Text**
11-12	**LA.12.RP.8** Read and comprehend a wide range of literary texts in the 12-CCR grade band independently and proficiently.	**LA.12.RI.8** Read and comprehend a wide range of informational texts in the 12-CCR grade band independently and proficiently.
9-10	**LA.10.RP.8** Read and comprehend a wide range of literary texts of appropriate complexity at the high end of the 9-10 grade band proficiently, with scaffolding as needed at the high end of the range.	**LA.10.RI.8** Read and comprehend a wide range of informational texts of appropriate complexity at the high end of the 9-10 grade band proficiently, with scaffolding as needed at the high end of the range.
8	**LA.8.RP.8** Read and comprehend a wide range of literary texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.	**LA.8.RI.8** Read and comprehend a wide range of informational texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.
7	**LA.7.RP.8** Read and comprehend a wide range of literary texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.	**LA.7.RI.8** Read and comprehend a wide range of informational texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.
6	**LA.6.RP.8** Read and comprehend a wide range of literary and informational texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.	**LA.6.RI.8** Read and comprehend a wide range of informational texts of appropriate complexity for the 6-8 grade band proficiently, with scaffolding as needed at the high end of the range.
5	**LA.5.RP.8** Read and comprehend a wide range of literary texts of appropriate complexity for Grade 5 independently and proficiently.	**LA.5.RI.8** Read and comprehend a wide range of informational texts of appropriate complexity for Grade 5 independently and proficiently.
4	**LA.4.RP.8** Read and comprehend a wide range of literary texts of appropriate complexity for Grade 4 independently and proficiently.	**LA.4.RI.8** Read and comprehend a wide range of informational texts of appropriate complexity for Grade 4 independently and proficiently.
3	**LA.3.RP.8** Read and comprehend a wide range of literary texts of appropriate complexity for Grade 3 independently and proficiently.	**LA.3.RI.8** Read and comprehend a wide range of informational texts of appropriate complexity for Grade 3 independently and proficiently.
2	**LA.2.RP.8** With scaffolding as needed, read and comprehend a wide range of literary texts of appropriate complexity for Grade 2.	**LA.2.RI.8** With scaffolding as needed, read and comprehend a wide range of informational texts of appropriate complexity for Grade 2.
1	**LA.1.RP.8** With prompting and support, read and comprehend a wide range of literary texts of appropriate complexity for Grade 1.	**LA.1.RI.8** With prompting and support, read and comprehend a wide range of informational texts of appropriate complexity for Grade 1.
K	**LA.K.RP.8** Actively engage in group reading activities with purpose and understanding.	**LA.K.RI.8** Actively engage in group reading activities with purpose and understanding.

K-12 Vocabulary Acquisition and Use: Standard 1	
Acquisition and Use | Build and use a range of conversational, academic, and discipline-specific grade-level vocabulary and apply to reading, writing, speaking, and listening.	
Grade	**Indicators**
11-12	**LA.12.V.1** Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes. a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases. b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., conceive, conception, conceivable). c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, parts of speech, etymology, or standard usage of words.
9-10	**LA.10.V.1** Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes. a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases. b. Identify and correctly use patterns of word changes that indicate different meanings or parts of speech (e.g., analyze, analysis). c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, parts of speech, or etymology of words.
8	**LA.8.V.1** Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes. a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases. b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words (e.g., recede, precede). c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, or parts of speech of words.
7	**LA.7.V.1** Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes. a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases. b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words (e.g., audience, audible). c. Consult general and specialized reference materials to determine or clarify the precise meanings, pronunciations, or parts of speech of words.
6	**LA.6.V.1** Integrate grade-level academic vocabulary appropriately for a variety of tasks and purposes. a. Use context clues (e.g., the overall meaning of a sentence or paragraph; a word's position or function in a sentence) to determine the meanings of words and phrases. b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words (e.g., audience, audible). c. Consult reference materials to determine or clarify the precise meanings, pronunciations, or parts of speech of words.

5	**LA.5.V.1** Acquire and use grade-level academic vocabulary appropriately. a. Use context clues (e.g., cause/effect relationships and comparisons in text) to determine the meanings of words and phrases. b. Use commonly occurring Greek and Latin affixes and roots to determine the meanings of words. c. Determine or clarify the precise meanings or pronunciations of words and phrases using reference materials and classroom resources.
4	**LA.4.V.1** Acquire and use grade-level academic vocabulary appropriately. a. Use context clues (e.g., definitions, examples, or restatements) in text to determine the meanings of words and phrases. b. Use commonly occurring Latin affixes and roots to determine the meanings of words and phrases (e.g., photograph, autograph). c. Determine or clarify the meanings or pronunciations of words using reference materials and classroom resources.
3	**LA.3.V.1** Acquire and use grade-level academic vocabulary appropriately. a. Use sentence-level context clues to determine the meaning of a word or phrase. b. Use affixes to determine the meaning of unknown words (e.g., comfortable, uncomfortable). c. Use known root words to determine the meaning of unknown words (e.g., company, companion). d. Determine the meanings of key words and phrases using reference materials and classroom resources.
2	**LA.2.V.1** Recognize and use conversational and grade-level academic vocabulary. a. Use sentence-level context clues to determine the meaning of a word or phrase. b. Use commonly occurring prefixes and suffixes to determine the meaning of unknown words (e.g., happy/unhappy). c. Use known root words to determine the meaning of unknown words (e.g., addition, additional). d. Determine the meaning of compound words by using knowledge of individual words (e.g., birdhouse). e. Determine the meanings of key words and phrases using provided reference materials and classroom resources.
1	**LA.1.V.1** Recognize and use conversational and grade-level academic vocabulary. a. Use sentence-level context clues to determine the meaning of a word or phrase. b. Use commonly occurring affixes to determine the meaning of unknown words. c. Identify commonly occurring root words and their inflectional forms. d. Determine the meanings of key words and phrases using provided reference materials and classroom resources.
K	**LA.K.V.1** Recognize and use conversational and grade-level academic vocabulary. a. With prompting and support, identify new meanings of familiar words (e.g., park, ring, fly). b. With prompting and support, use commonly occurring inflections and affixes to determine the meaning of unknown words. c. With prompting and support, determine the meanings of key words and phrases using provided reference materials and classroom resources.

K-12 Vocabulary Connotation and Context: Standard 2	
Context and Connotation | Determine or clarify the meaning of unknown and multiple-meaning words and phrases, closing flexibly from a range of strategies.	
Grade	**Indicators**
11-12	**LA.12.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Interpret figures of speech (e.g., hyperbole, paradox) in context and analyze their role in text. b. Analyze nuances in the meanings of words with similar denotations.
9-10	**LA.10.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Interpret figures of speech (e.g., euphemism, oxymoron) in context and analyze their role in text. b. Analyze nuances in the meanings of words with similar denotations.
8	**LA.8.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Interpret figures of speech (e.g., verbal irony, puns) in context. b. Determine the relationship between particular words to better understand each of the words. c. Distinguish between the connotations of words with similar denotations (e.g., willful, resolute).
7	**LA.7.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Interpret figures of speech (e.g., literary, biblical, or mythological allusions) in context. b. Determine the relationship between words (e.g., cause/effect, part/whole, item/category). c. Distinguish between the connotations of words with similar denotations (e.g., polite, diplomatic).
6	**LA.6.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Interpret figures of speech (e.g., literary, biblical, or mythological allusions) in context. b. Determine the relationship between words (e.g., cause/effect, part/whole, item/category). c. Distinguish between the connotations of words with similar denotations (e.g., economical, thrifty).

5	**LA.5.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Interpret figurative language, including similes and metaphors, in context. b. Recognize and explain the meaning of commonly occurring idioms, adages, and proverbs. c. Demonstrate knowledge of relationships between particular words (e.g., synonyms, antonyms, homographs) to better understand each of the words.
4	**LA.4.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Explain the meaning of commonly occurring similes and metaphors (e.g., light as a feather) in grade-level text. b. Recognize and explain the meaning of commonly occurring idioms and adages. c. Use knowledge of words by relating them to their antonyms and synonyms.
3	**LA.3.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Distinguish between literal and nonliteral meanings of words and phrases in context (e.g., take steps). b. Identify real-life connections between words and their use (e.g., describe people who are friendly or helpful). c. Distinguish nuances of meaning between related words that describe states of mind or degrees of certainty (e.g., believed, suspected).
2	**LA.2.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Ask and answer questions about key words and phrases to determine their meaning. b. Distinguish nuances of meaning between closely related verbs (e.g., toss, throw) and closely related adjectives (e.g., thin, slender).
1	**LA.1.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. Sort common words and phrases into conceptual categories to develop an understanding of word relationships. b. Define words by their category and simple attributes (i.e., a duck is a bird that swims). c. Ask and answer questions about key words and phrases to determine their meaning. d. Distinguish nuances of meaning between common verbs (e.g., glance, stare) and adjectives differing in intensity (e.g., large, gigantic).
K	**LA.K.V.2** Interpret an author's use of figurative, connotative, and technical language in grade-level literary and informational text. a. With prompting and support, sort common words and phrases into conceptual categories to develop an understanding of word relationships. b. With prompting and support, deepen understanding of words by identifying and relating them to their opposites. c. With prompting and support, ask and answer questions about key words and phrases to determine their meaning. d. With prompting and support, identify and explain descriptive words and phrases that suggest feelings or appeal to the senses.

K-5 Foundations of Writing Standard 1	
Foundations of Writing | Apply handwriting skills to communicate ideas and information.	
Grade	**Indicators**
5	*Mastered at Grade 2 and blended with other skills at this grade level.*
4	*Mastered at Grade 2 and blended with other skills at this grade level.*
3	*Mastered at Grade 2 and blended with other skills at this grade level.*
2	**LA.2.FW.1** Demonstrate and apply handwriting skills. a. Write legibly using correct formation of letters with automaticity and proper spacing between words.
1	**LA.1.FW.1** Demonstrate and apply handwriting skills. a. Print all upper and lowercase manuscript letters using correct formation. b. Write the common grapheme (letter or letter group) for each phoneme. c. Use appropriate spacing between letters and words.
K	**LA.K.FW.1** Demonstrate basic handwriting skills. a. Identify and match upper and lowercase manuscript letters. b. Print many upper and lowercase manuscript letters using reference materials and classroom resources. c. Write left to right and use appropriate spacing between letters and words.

K-5 Foundations of Writing Standard 2	
Foundations of Writing | Apply handwriting skills to communicate ideas and information.	
Grade	**Indicators**
5	*Mastered at Grade 2 and blended with other skills at this grade level.*
4	*Mastered at Grade 2 and blended with other skills at this grade level.*
3	*Mastered at Grade 2 and blended with other skills at this grade level.*
2	**LA.2.FW.2** Demonstrate sound-letter concepts when writing. a. Write common graphemes (letters or letter groups) for each phoneme.
1	**LA.1.FW.2** Demonstrate sound-letter concepts when writing. a. Segment phonemes in two- and three-phoneme syllables. b. Write letters used to represent vowel phonemes and those used to represent consonants; demonstrate understanding that every syllable has a vowel.
K	**LA.K.FW.2** Demonstrate sound-letter concepts when writing. a. Segment phonemes orally in single-syllable words. b. Demonstrate understanding that syllables are organized around vowel sounds.

K-12 Writing Production of Writing: Standard 1	
Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.	
Grade	**Indicators**
11-12	**LA.12.W.1** Compose grammatically correct multi-paragraph compositions to convey meaning and to add variety, interest, and fluency to written and spoken language. a. Demonstrate understanding that usage is a matter of convention, can evolve, and is sometimes contested. b. Apply knowledge of function and usage to revise personal and peer writing while resolving issues of complex or contested usage, consulting appropriate and reliable reference materials.
9-10	**LA.10.W.1** Compose grammatically correct multi-paragraph compositions to convey meaning and add variety, interest, and fluency to written and spoken language. a. Apply knowledge of rules for capitalization. b. Use a colon to introduce a quotation, definition, or to expand on information in a sentence; use a semicolon with a conjunctive adverb. c. Apply knowledge of function and usage to revise personal writing while resolving issues of complex or contested usage, consulting appropriate and reliable reference materials. d. Select and use verbs with appropriate voice and mood. e. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tense, number, voice, mood, and parallel structure.
8	**LA.8.W.1** Create grammatically correct multi-paragraph compositions with varied sentence structures. a. Apply knowledge of rules for capitalization. b. Use punctuation (comma, ellipsis, dashes) to indicate a pause or break and an ellipsis to indicate an omission. c. Explain the function of and use different types of verbals in sentences (e.g., gerunds, participles, infinitives). d. Distinguish between and use active and passive voice, formal and informal tone, and types of grammatical mood (e.g., indicative, subjunctive, conditional, imperative). e. Use appropriate parallel structure in words, phrases, and clauses. f. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tense, number, voice, and mood.
7	**LA.7.W.1** Create grammatically correct multi-paragraph compositions with varied sentence structures. a. Apply knowledge of rules for capitalization. b. Use a comma to separate coordinate adjectives. c. Distinguish between and use types of clauses (e.g., noun, relative, adverbial), modifiers (e.g., misplaced and dangling), and adjectives (coordinate and cumulative). d. Use a variety of prepositional and appositive phrases in sentences and paragraphs. e. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tenses.
6	**LA.6.W.1** Create grammatically correct multi-paragraph compositions with varied sentence structures. a. Apply knowledge of rules for capitalization.

	b. Use punctuation (e.g., commas, parentheses, dashes) to set off non-restrictive clauses. c. Use a colon to introduce items in a series; use a semicolon to combine independent clauses. d. Explain the function of articles (e.g., definite and indefinite) and apply knowledge to writing. e. Identify and use verb tenses (e.g., progressive). f. Distinguish between and use different types of phrases (e.g., prepositional and appositive). g. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tenses.
5	**LA.5.W.1** Create grammatically correct multi-paragraph compositions with varied sentence structures. a. Apply knowledge of rules for capitalization; use underlining, quotation marks, or italics to indicate titles of works. b. Use a comma to separate an introductory element from the rest of a sentence, to separate clauses, to set off a question tag, and to indicate direct address. c. Explain the function of and use frequently occurring interjections, verb tenses (e.g., perfect), and correlative conjunctions. d. Distinguish between and use types of adjectives (e.g., comparative, superlative). e. Identify and revise fragment and run-on sentences and inappropriate shifts in verb tenses.
4	**LA.4.W.1** Create grammatically correct sentences and paragraphs using a variety of sentence types and phrasing. a. Capitalize proper nouns (e.g., organizations, geographic regions, monuments and landmarks). b. Use commas and quotation marks to indicate direct speech and quotations from a text; use a comma before a coordinating conjunction in a compound sentence and with dependent clauses. c. Identify and use simple appositive phrases. d. Identify and use frequently occurring pronouns (e.g., subject, object), adverbs (e.g., relative), and verbs (e.g., helping and linking). e. Distinguish between frequently confused words (e.g., to, too, two; there, their, they're). f. Identify and revise fragment and run-on sentences in speaking and writing.
3	**LA.3.W.1** Write paragraphs using a variety of sentence types. a. Capitalize proper nouns (e.g., historic periods, nationalities, languages), proper adjectives (e.g., South American), and appropriate words in titles. b. Use commas in addresses and commas and quotation marks in dialogue; use an apostrophe to form and use possessives. c. Use frequently occurring nouns (e.g., concrete and abstract), verbs (regular and irregular), and simple verb tenses. d. Distinguish between and use coordinating and subordinating conjunctions and independent and dependent clauses. e. Explain the function of adjectives and adverbs in simple, compound, and complex sentences. f. Use correct subject-verb and pronoun-antecedent agreement in speaking and writing. g. Use frequently occurring prepositions and prepositional phrases.
2	**LA.2.W.1** Write and expand grammatically correct sentences (e.g. declarative, imperative, interrogative, exclamatory). d. Capitalize proper nouns (e.g., holidays, countries, product names).

	e. Use commas in greetings and closings of letters; use apostrophes to form contractions and frequently occurring possessives. f. Identify and explain the use of nouns (e.g., collective and irregular plural), pronouns (e.g., demonstrative), verbs (e.g., past tense irregular), simple prepositions, and frequently occurring conjunctions. g. Maintain consistent verb tense across sentences or paragraphs.
1	**LA.1.W.1** Write and expand grammatically correct simple sentences and paragraphs. a. Capitalize proper nouns (e.g., days of the week, names of people). b. Use end punctuation, commas in dates, and commas to separate single words in a series. c. Identify and use nouns (e.g., common, proper), pronouns (e.g., personal and possessive), verbs (e.g., past, present), and descriptive adjectives. d. Form and use regular and frequently occurring irregular plural nouns. e. Use subject-verb agreement in simple and compound sentences.
K	**LA.K.W.1** With prompting and support, form and use complete simple sentences in shared language activities. a. Capitalize the first word in a sentence and the pronoun I. b. Recognize and name end punctuation. c. Identify nouns (e.g., singular and plural) and simple verbs (e.g., action). d. Form regular plural nouns by adding /s/ or /es/. e. Use interrogatives to ask questions. f. Use subject-verb agreement in simple sentences.

K-12 Writing Production of Writing: Standard 2	
Production of Writing | Use a recursive writing process to produce clear and coherent writing appropriate to the discipline, audience, and/or context.	
Grade	**Indicators**
11-12	**LA.12.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Identify and use resources and inquiry tools to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify writing by revising, considering feedback from adults and peers to address the needs of a particular audience and enhance the purpose and structure. d. Improve and clarify writing by editing and proofreading to enhance style appropriate to audience, purpose, and task. e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.
9-10	**LA.10.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Identify and use resources and inquiry tools to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify writing by revising, considering feedback from adults and peers to address the needs of a particular audience and enhance the purpose and structure. d. Improve and clarify writing by editing and proofreading to enhance style appropriate to audience, purpose, and task. e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.
8	**LA.8.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Identify and use resources and inquiry tools to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers. d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers. e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers. Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.
7	**LA.7.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Use prewriting activities and inquiry tools to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers. d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers.

	e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.
6	**LA.6.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Use prewriting activities and inquiry tools to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers. d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers. e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.
5	**LA.5.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Use prewriting activities and resources to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers. d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers. e. Use or decipher multiple formats of print and digital text (e.g., manuscript, cursive, font, graphics, symbols). f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.
4	**LA.4.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Use prewriting activities and resources to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers. d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers. e. Use or decipher multiple formats of print and digital text (e.g., manuscript, cursive, font, graphics, symbols). f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers. Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.
3	**LA.3.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Use prewriting activities and resources to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers. d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers. e. Use or decipher multiple formats of print and digital text (e.g., manuscript, cursive, font, graphics, symbols).

	f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers. Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.
2	**LA.2.W.2** Use a recursive writing process to develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Use prewriting activities and resources to plan, organize, and draft writing. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Improve and clarify the content, structure, and organization of writing by revising, considering feedback from adults and peers. d. Improve and clarify writing by editing and proofreading, considering feedback from adults and peers. e. Use or decipher multiple formats of print and digital text (e.g., manuscript, font, graphics, symbols). f. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.
1	**LA.1.W.2** Develop, strengthen, and produce writing appropriate to the audience, purpose, and discipline. a. Use prewriting activities and resources to generate and organize ideas. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Use feedback from others to improve writing and/or add details. d. Use or decipher multiple formats of print and digital text (e.g., manuscript, font, graphics, symbols). e. Use appropriate print and digital/multimedia tools to produce, enhance, and/or publish writing individually or in collaboration with peers.
K	**LA.K.W.2** With prompting and support, use a recursive writing process to develop, strengthen, and produce writing appropriate to the discipline, audience, and/or context. a. Use prewriting activities and resources to generate ideas. b. Adapt writing processes to sustain engagement in short and long-term writing tasks of increasing length and complexity. c. Use feedback from others to improve writing and/or add details. d. Use or decipher multiple formats of print and digital text (e.g., manuscript, font, graphics, symbols). e. Use appropriate digital/multimedia tools to produce, enhance, and/or publish writing individually or with peers.

K-12 Writing Modes of Writing: Standard 3	
Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.	
Grade	**Indicators**
11-12	**LA.12.W.3** Write in a variety of literary forms to convey real or imagined experiences or events, themes, and perspectives in which the development, structure, and style are appropriate to the task, purpose, and discipline. a. Engage and orient the reader by setting out a problem, situation, or observation, establishing multiple points of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use literary techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, settings, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters and to set mood and tone. e. Provide a conclusion that follows from and reflects upon what is experienced, observed, resolved or left unresolved, and what new implications or questions are raised over the course of the piece.
9-10	**LA.10.W.3** Write in a variety of literary forms to convey real or imagined experiences or events, themes, and perspectives in which the development, structure, and style are appropriate to the task, purpose, and audience. a. Engage and orient the reader by setting out a problem, situation, or observation, establishing multiple points of view, and introducing a narrator and/or characters; create a smooth progression of experiences or events. b. Use literary techniques, such as dialogue, pacing, description, reflection, and multiple plot lines, to develop experiences, events, settings, and/or characters. c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. d. Use precise words and phrases, telling details, and sensory language to convey a vivid picture of the experiences, events, setting, and/or characters and to establish mood and tone. e. Provide a conclusion that follows from and reflects upon what is experienced, observed, resolved or left unresolved, and what new implications or questions are raised over the course of the piece.
8	**LA.8.W.3** Write in a variety of literary forms to convey real or imagined experiences or events in which the development and structure are appropriate to the task, purpose, and audience. a. Engage and orient the reader by establishing a conflict, situation, or observation, introducing a narrator and/or character(s), and establishing and maintaining point(s) of view; organize an event sequence that unfolds naturally and logically. b. Use literary techniques (e.g., dialogue, pacing, description, multiple plot lines) to develop experiences, events, characters, and settings). c. Use a variety of techniques to sequence events so that they build on one another to create a coherent whole. d. Use precise words and phrases, descriptive/sensory details, and figurative language to establish mood and tone and convey a vivid picture.

	e. Provide a conclusion that is clearly related to and reflects upon what is experienced, observed, or left unresolved over the course of the piece.
7	**LA.7.W.3** Write in a variety of literary forms to convey real or imagined experiences or events in which the development and structure are appropriate to the task, purpose, and audience. a. Engage and orient the reader by establishing a context and introducing a narrator and/or character(s), establishing and maintaining a point of view; organize an event sequence that unfolds naturally and logically. b. Use literary techniques (e.g., dialogue, pacing, description) to develop characters, events, settings, and conflicts. c. Use a variety of transitional words and phrases to signal shifts from one character, time frame, or setting to another. d. Use precise words and phrases, descriptive/sensory details, and figurative language to express personal or narrative voice. e. Provide a conclusion that is clearly related to and appropriately reflects on the literary experiences or events.
6	**LA.6.W.3** Write in a variety of literary forms to convey real or imagined experiences or events in which the development and structure are appropriate to the task, purpose, and audience. a. Engage and orient the reader by establishing a context and introducing a narrator and/or character(s) and point of view; organize an event sequence that unfolds naturally and logically. b. Use literary techniques (e.g., dialogue, pacing, description) to develop characters, events, settings, and conflicts. c. Use a variety of transitional words and phrases to signal shifts from one character, time frame, or setting to another. d. Use precise words and phrases, descriptive/sensory details, and figurative language to express personal or narrative voice. e. Provide a conclusion that is clearly related to and appropriately reflects on the literary experiences or events.
5	**LA.5.W.3** Write creative and/or expressive pieces that describe a well-developed event or experience. a. Establish a situation and introduce a narrator and/or characters. b. Use precise words and phrases, descriptive/sensory details, dialogue, and sensory language to convey thoughts, feelings, experiences, and events. c. Use a variety of transitional words and phrases to organize a sequence of events that unfolds naturally. d. Provide a conclusion related to the creative or expressive event or experience.
4	**LA.4.W.3** Write creative and/or expressive pieces that describe a well-developed event or experience. a. Establish a situation and introduce a narrator and/or character(s). b. Use precise words and phrases, descriptive/sensory details, and dialogue to develop characters, events, and settings. c. Use transitional words and phrases to organize a sequence of events that unfolds naturally. d. Provide a conclusion related to the creative or expressive event or experience.
3	**LA.3.W.3** Write creative and/or expressive pieces that describe a well-developed event or experience. a. Engage and orient the ready by establishing a situation and introducing a narrator and/or character(s). b. Include descriptive details about characters, events, or settings. c. Use words and phrases to signal sequence of events.

	d. Provide a closure related to the creative or expressive event or experience.
2	**LA.2.W.3** Write personal or fictional narratives that retell two or more appropriately sequenced events. a. Include relevant details about characters and settings. b. Use time order words to signal sequence of events. c. Provide a sense of closure.
1	**LA.1.W.3** With prompting and support, write personal or fictional creative and/or expressive pieces that retell two or more appropriately sequenced events. a. Include some relevant details. b. Use time order words to signal sequence of events. c. Provide a sense of closure.
K	**LA.K.W.3** With prompting and support, narrate personal or fictional events in a sequential order using a combination of drawing, dictating, and/or writing.

K-12 Writing Modes of Writing: Standard 4	
Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.	
Grade	**Indicators**
11-12	**LA.12.W.4** Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience. a. Develop a structure to sequence ideas logically; introduce a clear claim where appropriate, and/or distinguish the claim(s) from alternate or supporting claims. b. Demonstrate understanding and engagement with multiple viewpoints and sources to create and support nuanced claims as a recursive process of inquiry and exploration. c. Use words, phrases, key vocabulary, and varied syntax to clarify relationships between claim(s), counterclaim(s), and supporting evidence. d. Adapt style and tone appropriate to the norms and conventions of the task and discipline. e. Provide a conclusion that follows from and supports the argument(s) presented.
9-10	**LA.10.W.4** Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience. a. Develop a structure to sequence ideas logically; introduce a clear claim where appropriate, and/or distinguish the claim(s) from alternate or supporting claims. b. Demonstrate understanding and engagement with multiple viewpoints and sources to create and support nuanced claims as a recursive process of inquiry and exploration. c. Use words, phrases, key vocabulary, and varied syntax to clarify relationships between claim(s), counterclaim(s), and supporting evidence. d. Adapt style and tone appropriate to the norms and conventions of the task and discipline. e. Provide a conclusion that follows from and supports the argument(s) presented.
8	**LA.8.W.4** Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience. a. Develop a structure to sequence ideas appropriately; introduce a clear claim where appropriate. b. Introduce claim(s), acknowledge, and distinguish the claim(s) from alternate or supporting claims, and develop a structure in which ideas are grouped logically. c. Explain and cite relevant evidence from multiple credible sources. d. Use words, phrases, and key vocabulary to create cohesion and clarify the relationship between the claim(s) and supporting evidence. e. Adapt style and tone appropriate to the norms and conventions of the task and discipline. f. Provide a conclusion that follows from and supports the argument(s) presented.
7	**LA.7.W.4** Write arguments that develop a perspective with supporting reasons and evidence, organized as appropriate to the task, purpose, and audience. a. Develop a structure to sequence ideas appropriately; introduce a clear claim where appropriate. b. Explain and cite relevant evidence from multiple credible sources. c. Use words, phrases, and key vocabulary to create cohesion and clarify the relationship between claim(s) and supporting evidence. d. Provide a concluding statement or section that follows from and supports the argument(s) presented.

6	**LA.6.W.4** Write arguments that explain a perspective with supporting reasons and evidence. a. Introduce a claim clearly and develop a structure in which the ideas are grouped logically. b. Use relevant evidence from two or more credible sources. c. Use words, phrases, and key vocabulary to clarify the relationship between claim(s) and supporting evidence. d. Provide a concluding statement or section that follows from the argument presented.
5	**LA.5.W.4** Write opinion pieces that explain a perspective with supporting reasons and evidence. a. Introduce a topic or text clearly, state an opinion or perspective, and develop a structure in which ideas are grouped logically. b. Use facts and details to support reasons and/or evidence. c. Use words, phrases, and key vocabulary to connect ideas. d. Provide a concluding statement or section related to the perspective.
4	**LA.4.W.4** Write opinion pieces that explain a perspective with supporting reasons and/or evidence. a. Introduce a topic or text clearly, state an opinion, and develop a structure that includes reasons and/or evidence. b. Use facts and details to support reasons and/or evidence. c. Use linking words and phrases to connect ideas. d. Provide a concluding statement or section related to the opinion.
3	**LA.3.W.4** Write opinion pieces with supporting reasons and/or evidence. a. Introduce a topic or text, state an opinion, and develop a structure that includes reasons and/or evidence. b. Use linking words and phrases to connect opinions and reasons. c. Provide a concluding statement or section related to the opinion.
2	**LA.2.W.4** Express an opinion and provide supporting reasons. a. Introduce a topic or text. b. State an opinion and provide reasons to support the opinion. c. Provide a concluding statement or section.
1	**LA.1.W.4** With prompting and support, express an opinion about a topic or text and provide a supporting reason. a. Introduce a topic or text. b. State an opinion and provide a reason to support the opinion. c. Provide a sense of closure.
K	**LA.K.W.4** With prompting and support, express an opinion about a topic or text with one supporting reason using a combination of drawing, dictating, and/or writing.

K-12 Writing Modes of Writing: Standard 5	
Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.	
Grade	**Indicators**
11-12	**LA.12.W.5** Write informative/explanatory pieces to clearly convey ideas, information, and concepts in which the development and structure are appropriate to the task, discipline, purpose, and audience. a. Introduce a topic clearly and provide a specific focus; organize complex ideas, concepts, and information to make clear connections and distinctions including text features, illustrations, and/or multimedia elements. b. Develop the topic thoroughly with relevant, sufficient facts, extended definitions, concrete details, quotations, and/or other information and examples. c. Use appropriate and varied transitions, domain-specific vocabulary, and varied syntax to manage the complexity of the topic. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline. e. Provide a conclusion that follows from and supports the information or explanations and articulates the implications and/or significance of the topic.
9-10	**LA.10.W.5** Write informative/explanatory pieces to clearly convey ideas, information, and concepts in which the development and structure are appropriate to the task, discipline, purpose, and audience. a. Introduce a topic clearly and provide a specific focus; organize complex ideas, concepts, and information to make clear connections and distinctions including text features, illustrations, and/or multimedia elements. b. Develop the topic with relevant, sufficient facts, extended definitions, concrete details, quotations, and/or other information and examples. c. Use appropriate and varied transitions, domain-specific vocabulary, and varied syntax to manage the complexity of the topic. d. Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline. e. Provide a conclusion that follows from and supports the information or explanations and articulates the implications and/or significance of the topic.
8	**LA.8.W.5** Write informative/explanatory pieces to clearly convey ideas and information in which the development and structure are appropriate to the task, purpose, and audience. a. Introduce a topic clearly and provide a specific focus; organize ideas, concepts, and information into broader categories or sections including text features, illustrations, and/or multimedia elements. b. Develop the topic with relevant facts, definitions, concrete details, quotations, and/or other information and examples. c. Use appropriate transitions and domain-specific vocabulary to clarify relationships among ideas and concepts. d. Provide a concluding statement or section that follows from the information or explanation(s).
7	**LA.7.W.5** Write informative/explanatory pieces to examine a topic or text and clearly convey ideas and information. a. Introduce a topic clearly and provide a specific focus, grouping information logically and including text features, illustrations, and/or multimedia elements.

	b. Develop a topic with information (e.g., facts, definitions, concrete details, quotations, examples) related to the topic. c. Use appropriate transitions and key vocabulary to clarify relationships among ideas and concepts. d. Provide a concluding statement or section that follows from the information or explanation(s).
6	**LA.6.W.5** Write informative/explanatory pieces to examine a topic or text and clearly convey ideas and information. a. Introduce a topic clearly and provide a general focus, grouping information logically and including text features, illustrations, and/or multimedia elements. b. Develop a topic with information (e.g., facts, definitions, concrete details, quotations, examples) related to the topic. c. Use appropriate transitions and key vocabulary to clarify relationships among ideas and concepts. d. Provide a concluding statement or section that follows from the information or explanation(s).
5	**LA.5.W.5** Write informative/explanatory pieces to examine a topic or text and clearly convey ideas and information. a. Introduce a topic clearly and provide a general focus, grouping information logically and including text features, illustrations, and/or multimedia elements. b. Develop the topic with information (e.g., facts, definitions, details, quotations) related to the topic c. Use linking words and phrases and key vocabulary to connect ideas and categories of information. d. Provide a concluding statement or section related to the information or explanation(s).
4	**LA.4.W.5** Write informative/explanatory pieces to examine a topic or text and convey ideas and information. a. Introduce a topic clearly and group related information into paragraphs and sections including text features, illustrations, and/or multimedia elements. b. Develop the topic with information (e.g., facts, definitions, details, quotations) related to the topic. c. Use linking words and phrases and key vocabulary to connect ideas and categories of information. d. Provide a concluding statement or section related to the information or explanation(s).
3	**LA.3.W.5** Write informative/explanatory pieces to examine a topic or text and convey ideas and information. a. Introduce a topic and group related information together, including illustrations when useful to provide clarity. b. Develop the topic with information (e.g., facts, definitions, details) clearly related to the topic. c. Use linking words and phrases and key vocabulary to connect ideas and categories of information. d. Provide a concluding statement or section related to the topic.
2	**LA.2.W.5** Write informative/explanatory pieces about a topic or text with supporting facts and details. a. Introduce a topic or text. b. Develop a topic with facts, details, and definitions. c. Use words and phrases related to the topic. d. Provide a concluding statement or section.

1	**LA.1.W.5** With prompting and support, write informative/explanatory pieces about a topic or text with supporting facts and details. a. Introduce a topic. b. Develop a topic using supporting facts and details. c. Use words and phrases related to the topic. d. Provide a sense of closure.
K	**LA.K.W.5** With prompting and support, write informative/explanatory pieces about a topic or text with one supporting fact using a combination of drawing, dictating, and/or writing.

K-12 Writing Modes of Writing: Standard 6	
Modes of Writing | Write in a variety of modes for a variety of purposes and audiences across disciplines.	
Grade	**Indicator**
11-12	**LA.12.W.6** Gather and use credible evidence from multiple authoritative sources, evaluate the strengths and limitations of sources in terms of the task, purpose, and audience, and assess their relevance in answering the research question(s). a. Integrate information and evidence into writing selectively, accurately quoting or paraphrasing data and conclusions to maintain the flow of ideas while avoiding plagiarism. b. Locate and evaluate the credibility of evidence (e.g., the expertise or motivation of the creator of an information product, potential bias and/or deception, and social, political, and/or historical perspectives) from print and digital sources to generate and answer questions and create new understandings. c. Select and use appropriate note-taking formats to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source; cite sources using a variety of in-text citations to enhance fluency; develop a list of sources that conforms to a style guide appropriate to the discipline (e.g., MLA, APA, Chicago). e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
9-10	**LA.10.W.6** Gather and use credible evidence from multiple authoritative sources and assess its relevance in answering the research question(s). a. Integrate information and evidence into writing selectively, accurately quoting or paraphrasing data and conclusions to maintain the flow of ideas while avoiding plagiarism. b. Locate and evaluate the credibility of evidence (e.g., the expertise or motivation of the creator of an information product, potential bias and/or deception, and social, political, and/or historical perspectives) from print and digital sources to generate and answer questions and create new understandings. c. Select and use appropriate note-taking formats to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source; cite sources using a variety of in-text citations to enhance fluency; develop a list of sources that conforms to a style guide appropriate to the discipline (e.g., MLA, APA, Chicago). e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
8	**LA.8.W.6** Gather and use credible evidence from multiple trustworthy sources and assess its relevance in answering the research question(s). a. Integrate evidence into writing by quoting or paraphrasing data and conclusions while avoiding plagiarism. b. Locate and evaluate the credibility of evidence (e.g., the expertise or motivation of the creator of an information product, potential bias and/or deception) from print and digital sources to generate and answer questions and create new understandings.

	c. Select and use appropriate note-taking formats to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source and citing sources within text (e.g., parenthetical and numerical); provide a list of sources using a standard format. e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
7	**LA.7.W.6** Gather and use credible evidence from multiple trustworthy sources and assess its relevance in answering the research question. a. Integrate evidence into writing by quoting or paraphrasing data and conclusions while avoiding plagiarism. b. Locate and evaluate the credibility of evidence (e.g., motivation and/or potential bias of an information product) from print and digital sources to generate and answer questions and create new understandings. c. Select and use appropriate note-taking formats to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source and citing sources within text (e.g., parenthetical and numerical); provide a list of sources using a standard format. e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
6	**LA.6.W.6** Gather and use credible evidence from trustworthy sources and assess its relevance in answering a research question. a. Paraphrase and quote evidence to support ideas while avoiding plagiarism. b. Locate and evaluate credibility of evidence (e.g., motivation and/or potential bias of an information product) from print and digital sources to generate and answer questions and create new understandings. c. Select and use appropriate note-taking formats to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources using a standard format. e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
5	**LA.5.W.6** Locate and summarize relevant information and evidence from literary and informational text sources to answer questions about a topic. a. Paraphrase information and evidence to support ideas while avoiding plagiarism. b. Locate and evaluate credibility of evidence (e.g., motivation and/or potential bias of an information product) from print and digital sources to generate and answer questions and create new understandings. c. Sort evidence into categories using an appropriate note-taking format to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources using a standard format. e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).

4	**LA.4.W.6** Locate and summarize relevant evidence from literary and/or informational text sources to answer question(s) about a topic. a. Paraphrase information and evidence to support ideas while avoiding plagiarism. b. Identify print and digital tools to gather information and evidence. c. Sort evidence into categories using an appropriate note-taking format to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources. e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
3	**LA.3.W.6** Locate evidence from literary and/or informational text sources to answer questions about a topic. a. Paraphrase information from sources to support ideas while avoiding plagiarism. b. Identify print and digital tools to gather information and ideas to answer questions. c. Sort evidence into categories using an appropriate note-taking format to collect and organize information. d. Demonstrate academic integrity by avoiding overreliance on any one source and referencing sources in writing and speaking; provide a list of sources. e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
2	**LA.2.W.6** Locate information from provided sources to answer questions about a topic. a. Retell information from provided sources to support ideas while avoiding plagiarism. b. Identify print and digital tools to gather information and ideas and answer questions. c. Sort evidence and information into categories. d. Demonstrate academic integrity by referencing sources in writing and speaking. e. Practice safe and ethical behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials, appropriate language use, respect diverse perspectives).
1	**LA.1.W.6** With prompting and support, identify information from provided sources to answer a question. a. Retell or recall information from provided sources. b. Use provided print and/or digital tools to gather information and ideas to answer questions. c. Sort evidence and information into categories. d. Use provided print and/or digital tools to gather information and ideas and to answer questions. e. Practice safe behaviors when communicating and interacting with others digitally (e.g., safe information to share, utilize appropriate sites and materials).
K	**LA.K.W.6** With prompting and support, identify information from provided sources to answer a question using a combination of drawing, dictating, and/or writing.

K-12 Speaking and Listening Comprehension and Collaboration: Standard 1	
Comprehension and Collaboration | Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings.	
11-12	**LA.12.SL.1** Communicate effectively and appropriately in collaborative activities for a variety of tasks, purposes, and audiences to express ideas, share knowledge, and generate new understandings. a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning). e. Complete a task following complex, multi-step directions.
9-10	**LA.10.SL.1** Initiate and participate in structured discussions and collaborations about grade-level topics and texts. a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning). e. Complete a task following complex, multi-step directions.
8	**LA.8.SL.1** Initiate and participate in structured discussions and collaborations about 8th grade topics and texts. a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning). e. Complete a task following complex, multi-step directions. Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.
7	**LA.7.SL.1** Prepare for and participate in structured discussions and collaborations about 7th grade topics and texts. a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning). e. Complete a task following multi-step directions.
6	**LA.6.SL.1** Prepare for and participate in structured discussions and collaborations about 6th grade topics and texts.

	a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, summarizing, questioning). e. Complete a task following multi-step directions. Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.
5	**LA.5.SL.1** Prepare for and participate in structured discussions and collaborations about 5th grade topics and texts. a. Ask relevant questions to build on ideas, clarify own ideas, or acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, taking notes, recalling, questioning). e. Complete a task following multi-step directions.
4	**LA.4.SL.1** Prepare for and participate in structured discussions and collaborations about 4th grade topics and texts. a. Ask relevant questions to build on ideas or acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, recalling, questioning). e. Complete a task following multi-step directions.
3	**LA.3.SL.1** Prepare for and participate in structured discussions and collaborations about 3rd grade topics and texts. a. Ask relevant questions to build on ideas and acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a discussion or collaboration. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Demonstrate active and attentive listening skills (e.g., eye contact, nonverbal cues, recalling, questioning). e. Complete a task following multi-step directions.
2	**LA.2.SL.1** Tell a story or recount an experience with appropriate facts and pertinent descriptive details. a. Ask pertinent questions to acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Develop active and attentive listening skills (e.g., eye contact, nonverbal cues, recalling). e. Complete a task following multi-step directions. Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence in which the organization, development, and style are appropriate to the discipline, audience, and/or context.

1	**LA.1.SL.1** Participate with peers and adults in structured discussions and routines about 1st grade topics and texts. a. Ask pertinent questions to acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Develop attentive listening skills (e.g., eye contact, nonverbal cues, recalling). e. Complete a task following one/two-step directions.
K	**LA.K.SL.1** With prompting and support, participate with peers and adults in structured discussions and routines about Kindergarten topics and texts. a. Ask pertinent questions to acquire or confirm information. b. Demonstrate interpretation of verbal and non-verbal messages in a conversation. c. Converse with peers and adults in an all-inclusive manner to foster positive relationships while respecting diverse perspectives. d. Develop attentive listening skills (e.g., eye contact, nonverbal cues, recalling). e. Complete a task following one/two-step directions.

K-12 Speaking and Listening Presentation of Knowledge and Ideas: Standard 2	
Presentation of Knowledge and Ideas | Present information, findings, and supporting evidence and in which the organization, development, and style are appropriate to the discipline, audience, and/or context.	
11-12	**LA.12.SL.2** Present information, findings, and supporting evidence effectively and in which the organization, development, and style are appropriate to a variety of tasks, purposes, and audiences. a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, intonation) for a variety of purposes and situations, including interpreting grade-level texts. b. Convey a perspective with clear reasoning and valid evidence. c. Evaluate the purpose of information being presented, its motives (e.g., social, commercial, political), and determine its credibility. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words). e. Make strategic use of appropriate visual and/or digital tools to enhance understanding of findings, reasoning, and evidence for specific audiences.
9-10	**LA.10.SL.2** Present information, findings, and supporting evidence clearly and concisely and in which the organization, development, and style are appropriate to a variety of tasks, purposes, and audiences. a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, nonverbal cues, intonation) for a variety of purposes and situations, including interpreting grade-level texts. b. Convey a perspective with clear reasoning and valid evidence. c. Analyze the purpose of information being presented, evaluate its motives (e.g., social, commercial, political), and determine its credibility. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words). e. Select and use appropriate visual and/or digital tools to enhance verbal communication and add interest.
8	**LA.8.SL.2** Present claims and findings, emphasizing key ideas in a focused, coherent manner with relevant descriptions, facts, details, and examples to clarify themes or central ideas. a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 8th grade texts. b. Convey a perspective with clear reasoning and valid evidence. c. Analyze the purpose of information being presented and evaluate its motives (e.g. social, commercial, political). d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words). e. Select and use appropriate visual and/or digital tools to enhance verbal communication and add interest.
7	**LA.7.SL.2** Present claims and findings, emphasizing key ideas in a focused, coherent manner with relevant descriptions, facts, details, and examples to clarify themes or central ideas. a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 7th grade texts. b. Convey a perspective with clear reasoning and valid evidence.

	c. Analyze the purpose and credibility of information being presented. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words). e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.
6	**LA.6.SL.2** Present claims and findings, sequencing ideas logically and using relevant descriptions, facts, and details to clarify themes or central ideas. a. Demonstrate and adjust speaking techniques (e.g., appropriate eye contact, pacing, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 6th grade texts. b. Convey a perspective with clear reasoning and support. c. Analyze the purpose and credibility of information being presented. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, connotations, subtleties of language). e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.
5	**LA.5.SL.2** Report on a topic or text, or present an opinion, sequencing ideas logically and using appropriate facts and relevant, descriptive details to support themes or central ideas. a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 5th grade texts. b. Convey a perspective with clear reasoning and support. c. Identify the purpose and credibility of information being presented. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words). e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.
4	**LA.4.SL.2** Report on a topic or text, tell a story, or recount an experience in an organized manner with appropriate facts and relevant, descriptive details to support themes or central ideas. a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 4th grade texts. b. Convey a perspective with clear reasoning and support. c. Identify the purpose and credibility of information being presented.
3	**LA.3.SL.2** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevant, descriptive details. a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 3rd grade texts. b. Convey a perspective with clear reasoning and support. c. Identify the purpose and credibility of information being presented. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., stereotypes, multiple meanings of words). e. Use appropriate visual and/or digital tools to enhance verbal communication and add interest.
2	**LA.2.SL.2** Tell a story or recount an experience with appropriate facts and pertinent descriptive details. a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 2nd grade texts. b. Convey a personal perspective with clear reasons.

	c. Explain the purpose and credibility of information being presented. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., helpful/hurtful words). e. Use appropriate visual and/or digital tools to support verbal communication.
1	**LA.1.SL.2** Tell a story or recount experiences with appropriate facts and pertinent descriptive details. a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations, including interpreting 1st grade texts. b. Convey a personal perspective with clear reasons. c. With prompting and support, explain the purpose of information being presented. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., helpful/hurtful words). e. Use appropriate visual and/or digital tools to support verbal communication.
K	**LA.K.SL.2** With prompting and support, describe familiar people, places, things, and events, and provide additional detail. a. Demonstrate appropriate speaking techniques (e.g., appropriate eye contact, adequate volume, clear pronunciation) for a variety of purposes and situations. b. Convey a personal perspective with clear reasons. c. Explain the purpose of information being presented. d. Demonstrate awareness of and sensitivity to the appropriate use of words (e.g., helpful/hurtful words). e. Use appropriate visual and/or digital tools to support verbal communication.



Appendix: Key Instructional Shifts for English Language Arts

Shifting instructional practice is central to improving teaching and learning. The 2021 revisions to Nebraska's College and Career Ready Standards for English Language Arts, per Nebraska revised statute 79-76.001, require a number of key shifts in classroom practice and consideration of curricular materials that are essential to realize the vision of excellent literacy instruction. This document provides an overview of the key instructional shifts for English Language Arts and the roles that teachers, students, and school leaders* have in the stages of their implementation.

ELA/Literacy Shift 1: Science of Reading/Foundations of Reading | The revised standards are designed around the *Science of Reading* which is a vast, interdisciplinary body of scientifically-based research about how young children learn to read. The *Foundations of Reading* standards and indicators at each grade level outline a carefully sequenced progression of skills that should inform instruction of phonology, sound-symbol association, syllables, morphology, syntax, and semantics. A systematic, cumulative approach ensures all students attain early literacy proficiency.

Teachers…	School leaders…	Students…
▪ Provide explicit instruction in print concepts, phonological awareness, phonics, and fluency. ▪ Provide frequent, meaningful opportunities for practice of newly acquired skills. ▪ Progress monitor with diagnostic assessments. ▪ Differentiate instruction for struggling readers.	▪ Provide systematic early literacy training based on the science of reading. ▪ Provide access to HQIMs and ongoing support for their implementation. ▪ Create structures that maximize core instruction during literacy blocks. ▪ Ensure school environments are print-rich.	▪ Orally practice in phonemic awareness activities. ▪ Engage in frequent, meaningful practice of emerging skills. ▪ Read high-quality decodable texts at school and at home. ▪ Self-select literary and informational texts based on their interests.

ELA/Literacy Shift 2: Staircase of Complexity | In order for students to be prepared for the complexity demands of the texts they will encounter in college, career, and personal life, each grade level requires a "step" of growth on the "staircase of complexity." High-quality, knowledge-building texts that are at or above grade level should form the center of instruction.

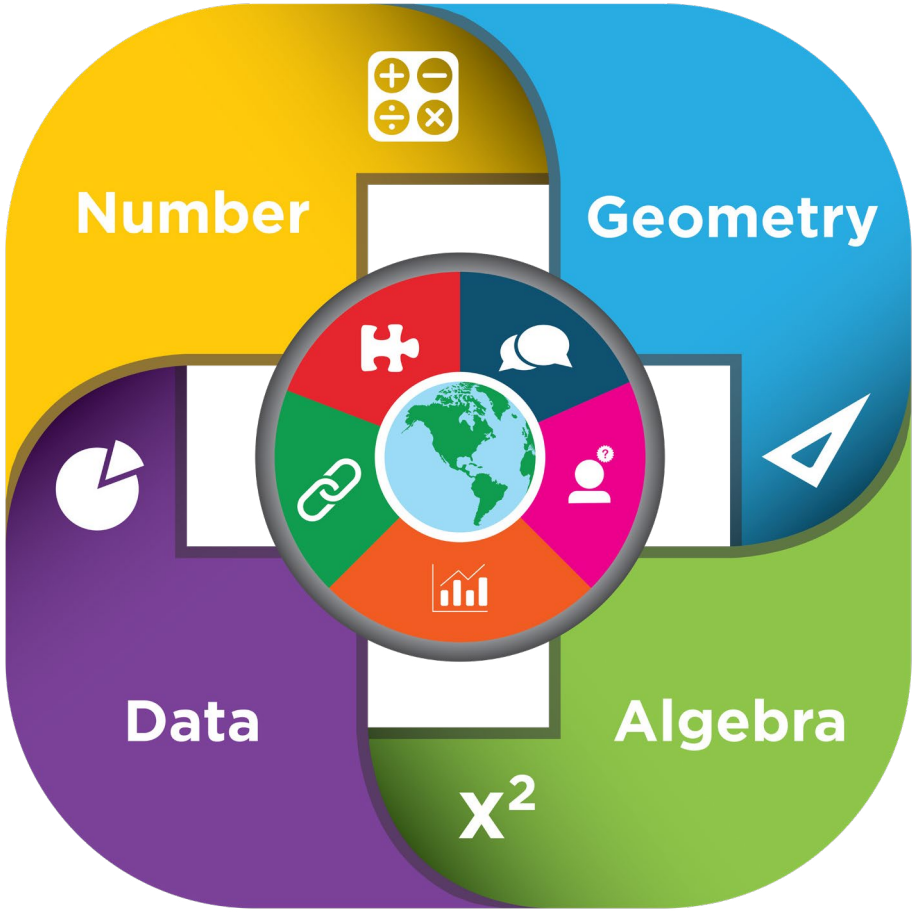
Teachers…	School leaders…	Students…
▪ Use anchor and supporting texts that increase in complexity over the year. ▪ Provide frequent, meaningful opportunities for close reading and re-reading. ▪ Provide rigorous tasks and opportunities to write and speak about content. ▪ Scaffold instruction for struggling readers.	▪ Develop and refine a district-wide, cohesive scope and sequence grounded in complex, knowledge-building texts. ▪ Provide deep, sustained professional learning on the implementation of HQIMs. ▪ Create structures for cross-curricular experiences with complex texts.	▪ Employ strategies for comprehending grade-level texts and their academic language. ▪ Increase time spent writing about the content of complex texts using academic language. ▪ Interact meaningfully with complex texts through robust discussion. ▪ Self-select texts at their own reading level.

ELA/Literacy Shift 3: Balancing Literary and Informational Texts | The revised standards reflect the unique but interrelated skills associated with successful comprehension of literary ("Prose and Poetry)," and informational text types. It is recommended students read a 50-50 balance of literary and informational texts, thereby building their knowledge of the world and content in science, social studies, the arts, and literature.

Teachers…	School leaders…	Students…
▪ Provide rich experiences with a variety of text types. ▪ Explicitly teach the unique characteristics and features of informational text. ▪ Use thematically-related text sets designed to build deep knowledge of topics. ▪ Read aloud to students to model expert, fluent reading of text. ▪ Scaffold instruction for struggling readers.	▪ Develop and refine a district-wide, cohesive scope and sequence grounded in complex, knowledge-building texts. ▪ Provide deep, sustained professional learning on the implementation of high-quality instructional materials. ▪ Develop structures and professional learning opportunities so that students access complex text in all content areas.	▪ Read a balance of literary and informational texts across content areas. ▪ Read a wide range of multimodal texts in which meaning is conveyed through visual, audio, gestural, tactile, and spatial means. ▪ Build vocabulary through a combination of conversation, direct instruction, and reading. ▪ Participate in frequent opportunities to write about content and practice the modes and structures of literary and informational text types.

ELA/Literacy Shift 4: Explicit Writing Instruction | The *Production of Writing* strand of the revised standards lays out an explicit sequence of evidence-based skills that lead to writing proficiency. The progression emphasizes sentence-level and paragraph composition so that students are able to craft cohesive writing pieces grounded in evidence from complex texts.

Teachers…	School leaders…	Students…
▪ Explicitly teach grammar, usage, and mechanic skills in the context of high-quality texts. ▪ Use high-quality instructional materials that provide a mix of on-demand and process writing tasks. ▪ Provide frequent opportunities for revising and editing pieces written by self and others. ▪ Design lessons in which students explicitly examine grammatical structures in meaningful, complex sentences. ▪ Design instruction in which students experience grammatical conventions in various contexts.	▪ Equip teachers with professional learning, high-quality materials, and evidence-based resources to support their knowledge of language. ▪ Ensure a district-wide scope and sequence reflects a carefully planned integration of language and content. ▪ Assess the frequency and quality of direct writing instruction in all classes. ▪ Support the implementation of formative, interim, and summative assessment that informs instruction.	▪ Write about the content of complex texts using academic language and conventions appropriate to the task, purpose, and audience. ▪ Recognize the sentence as the building block of all writing. ▪ Demonstrate their learning through a variety of written tasks. ▪ Engage in deliberate practice of emerging skills. ▪ Learn grammatical concepts through the construction and revision of their own writing and that of others.



Nebraska's College and Career Ready Standards for Mathematics

Approved by the Nebraska State Board of Education on September 2, 2022

Table of Contents

Acknowledgements. 3
Introduction 4
Content Area Standards Overview. 4
Kindergarten Standards. 9
Grade 1 Standards. 14
Grade 2 Standards 19
Grade 3 Standards 24
Grade 4 Standards 29
Grade 5 Standards 34
Grade 6 Standards 39
Grade 7 Standards 45
Grade 8 Standards 50
High School Standards 55
High School Advanced Topics Standards 65

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Introduction

College and career readiness for Nebraska's K-12 students requires content area standards that are clearly defined and increasingly rigorous across grade levels. The standards are designed to ensure all students have access to grade-level mathematics content centered on deep learning of concepts while actively building new knowledge from their experiences. The revised mathematics standards encompass a wide range of essential skills across the strands of Number, Algebra, Geometry, and Data. The standards, both individually and as an integrated whole, describe not only expectations for college and career readiness, but the 21st century mathematical literacies for critical and innovative thinking and problem solving. The progression of skills within each strand are research and evidence-based and designed to prepare Nebraska's students for postsecondary and workforce demands.

Content Area Standards Overview

Nebraska Revised Statute 79-760.01 requires the State Board of Education to adopt measurable academic content standards for the areas of reading, writing, mathematics, science, and social studies. Standards describe grade-level expectations for given content areas and provide a framework upon which Nebraska districts develop, establish, and implement curriculum. For effective teaching and learning to occur, the content area standards should drive local decisions related to instructional materials, resources, and interim, formative, and summative assessments.

The Nebraska Department of Education has identified quality criteria in the development of content area standards. These criteria ensure that standards are grounded in a strong research base of human cognition, motivation, and teaching and learning and describe essential knowledge and skills for college, career, and civic readiness. The revised mathematics standards, written by teams of Nebraska educators and reviewed by local and national experts, were developed with the following indicators of quality:

Measurable. Standards provide benchmarks against which student progress toward learning goals can be measured.

Appropriately challenging. Standards must build in complexity so that by the end of grade 12, students are prepared for postsecondary education and the workforce.

Connected. Student learning is most effective when it connects knowledge and skills to related topics and authentic applications.

Clearly worded. Content area standards must effectively communicate what students should know and be able to do.

Scaffolded. Indicators in the Nebraska content area standards scaffold student learning by sequencing connected knowledge and skills across grades so that students build and deepen understanding and ability over time.

Specific. Specificity assures that the language used in standards and indicators is sufficiently detailed to be accurately interpreted by educators.

Mathematics Standards Design

Nebraska's College and Career Ready Standards for Mathematics reflect the tiered structure common across all Nebraska content area standards. Grade-level standards include broad, overarching content-based statements that describe the basic cognitive or affective expectations of student learning. They also reflect, across all grade levels, the long-term goals for learning associated with college and career readiness. Indicators further describe what students must know and be able to do to meet the standard as well as provide guidance related to classroom instruction and assessment. In addition to standards and indicators, some of the standards include examples. The "e.g." statements, where appropriate, provide guidance relative to topics that may be included in a locally determined curriculum.

The structure of Nebraska's College and Career Ready Standards for Mathematics includes:

K-12 Content Strands. The strands are broad, general statements that are not grade-level specific. They reflect major topics in mathematics (number, algebra, geometry, and data) and the five mathematical processes.

Grade-Level Standards. The grade-level standards identify what students should know and be able to do by the end of each grade level or grade band. The standards are organized within K-12 Content Strands. The grade-level standards include a statement that describes the expectations for proficiency relative to the major work of the grade.

Indicators. The indicators provide additional specificity to distinguish expectations between grade levels. They are considered an integral part of the standard to be taught and assessed.

For grades K-8, the standards and indicators are written at grade level and are organized by four content strands: Number, Algebra, Geometry, and Data. The High School Standards and Advanced Topics Standards are organized by four content strands: Number, Algebra, Geometry, and Data.

Coding: The standards are organized using a coding system that includes the content area, the grade level, an abbreviation for the content strand, and the number within the strand. Lowercase letters represent indicators for some of the standards. (NOTE: not all standards include indicators.)

––—----**Example: MA.K.N.1.a**—--------

MA = Content Area (Math)

K = Kindergarten

N = Content Strand (Number)

1 = Standard

a = indicator

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The structure of Nebraska's College and Career Ready Standards for Mathematics includes:

Content Strand	Description
Number (N)	Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.
Ratios and Proportions (R) [1]	Students will understand ratio concepts and use ratio reasoning to solve problems.
Algebra (A)	Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.
Geometry (G)	Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.
Data (D)	Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

[1] Ratios and Proportions is a new content strand found only in Grades 6 and 7.

Grade Level Content Focus

In addition to the standards and indicators, this document includes information about content focus at the beginning of each grade level. Based on research and the progression of the disciplines, the information provides a snapshot of the "major work of the grade." This guidance leverages the structure and emphases of college- and career-ready mathematics standards. At every grade level, instruction should emphasize the development of the mathematical processes as the vehicle for content mastery.

Nebraska Mathematical Processes

Introduction. The Nebraska Mathematical Processes reflect overarching processes that students should master as they work towards college and career readiness. As described by the National Research Council (2001), mathematical processes are integral to all mathematics teaching and learning. The Nebraska Mathematical Processes reflect the interaction of skills necessary for success in math coursework as well as the ability to apply math knowledge and processes within authentic contexts. The processes highlight the applied nature of math within the workforce and clarify the expectations held for the use of mathematics in and outside of the classroom. Additionally, the Fordham Institute (2018) states that high quality standards for mathematics "integrate and promote the 'math processes' or mathematical habits of mind that every student should possess." Mathematical processes activate the learning process while increasing the likelihood that students will become mathematically proficient (Van de Walle et al., 2018).

To develop essential mathematical habits of mind, mathematically proficient students:



Make sense of problems and persevere in solving them. Students make sense of problems and look for entry points to plan solution pathways. A variety of tools including, but not limited to, mental math, estimation, concrete and visual models, and appropriate technology may be selected to support problem solving. Students form conjectures or inferences based on patterns or sets of examples and nonexamples and monitor their progress. Perseverance includes working without knowing if a plan will succeed, trying other plans if an initial plan does not work, and checking if a solution is reasonable. **(PROBLEM SOLVING)**



Reason quantitatively and abstractly and consider the reasoning of others. Students make sense of quantities and their relationships using quantitative and abstract reasoning. Quantitative reasoning uses the properties of numbers, operations, and geometric objects. Abstract reasoning includes making sense of and manipulating representations in terms of the original context. Students can represent a problem using numbers and mathematical symbols, solve the problem and then make sense of the solution in context of the original situation. Students can analyze their own reasoning and the reasoning of others by comparing different approaches, recognizing correctness and efficiency, and finding counterexamples. **(REASONING)**



Create and use representations to organize, record, and communicate mathematical ideas. Students will understand that representations of mathematical ideas – physical, visual, symbolic, contextual, and verbal – are an essential part of learning, doing, and communicating mathematics. Students create, use, and evaluate the effectiveness of representations to clearly communicate mathematical ideas. **(REPRESENTATIONS)**

Analyze mathematical relationships to connect mathematical ideas. Students routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense. By modeling mathematics in authentic contexts, students make connections among and between different areas of mathematics and other disciplines. Students seek out and make connections among different approaches and representations, including those of other students. **(CONNECTIONS)**

Explain and justify mathematical ideas using precise mathematical language in written or oral communication. Students will communicate their solutions with displays, explanations, and justifications. Students make sense of the mathematics by asking helpful questions that clarify or deepen understanding. Students will use precise mathematical language when explaining and justifying their work in written or oral form. **(COMMUNICATION)**

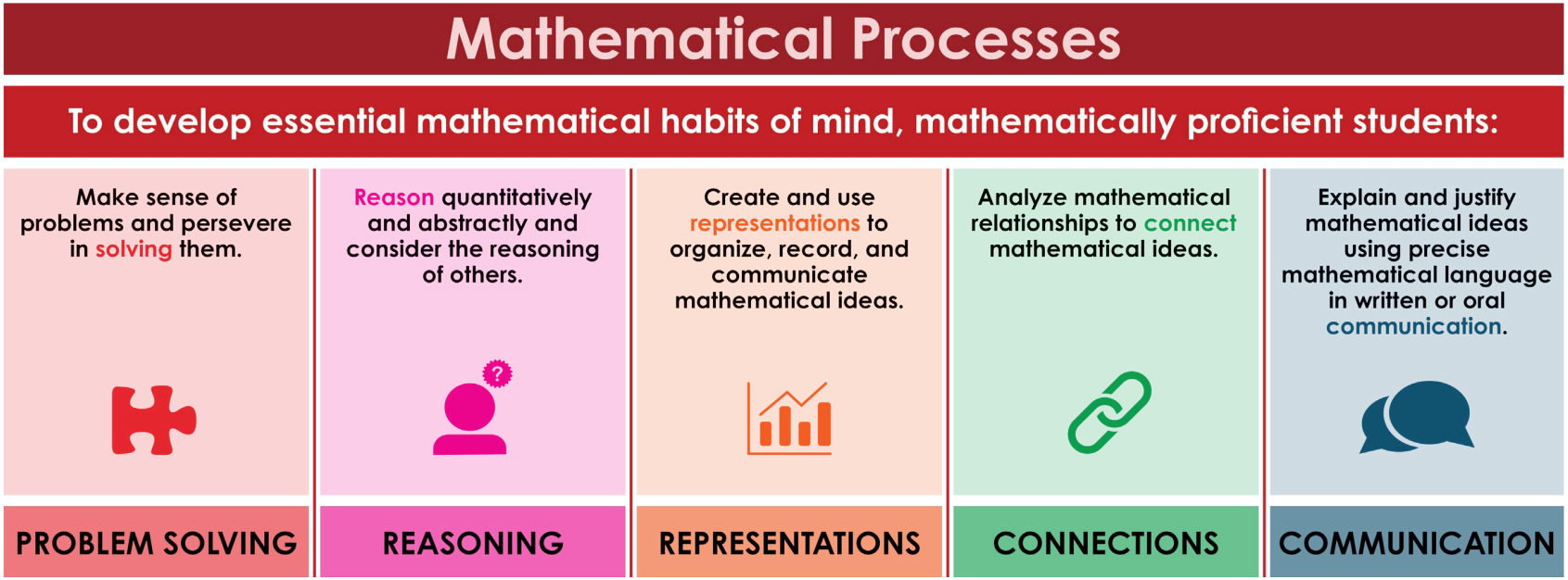


Kindergarten Standards

Kindergarten Content Focus

During Kindergarten, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Using numbers to represent quantities and to solve quantitative problems, such as quickly recognizing the number in a small set, counting objects in a set, producing sets of given sizes, and comparing and ordering sets or numerals.
- Working with numbers 11-19 to gain foundations for place value.
- Understanding addition as putting together and adding to and understanding subtraction as taking apart and taking from.
- Identifying, naming, and describing two- and three-dimensional shapes that are presented in a variety of ways.



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

K.N.1 Subitizing: Students will quantify briefly shown collections and verbally label the arrangements without counting.

K.N.1.a Without counting, recognize and verbally label arrangements for briefly shown collections up to 10 (e.g., "I saw 5." "How did you know?" "I saw 3 and 2, that is 5."

K.N.2 Counting and Cardinality: Students will understand the relationship between numbers and quantities.

K.N.2.a Use one-to-one correspondence when counting objects to show the relationship between numbers and quantities and understand the last number counted is a direct representation of the total objects in a given set.

K.N.2.b Understand that each successive number name refers to a quantity that is one larger.

K.N.2.c Count out the number of objects given a number from 1 to 20.

K.N.2.d Count up to 20 objects arranged in a line, a rectangular array, or a circle, and count up to 10 objects in a scattered configuration.

K.N.2.e Count verbally forward and backward from any given number within 20.

K.N.2.f Count verbally in sequential order by ones and by tens to 100, making accurate decade transitions (e.g., 89 to 90).

K.N.2.g Write and name numbers 0 to 20. Represent a number of objects with a written numeral 0 to 20.

K.N.2.h Compare the number of objects in two groups, up to 20, using the words fewer than, more than, the same as.

K.N.3 Base Ten: Students will work with numbers 11 to 19 to gain a foundation for place value.

K.N.3.a Compose and decompose numbers from 11 to 19 into a group of ten ones and some more ones using a model, drawing, or equation.

K.N.4 Number and Algebraic Relationships: Students will understand and demonstrate the meaning of addition and subtraction.

K.N.4.a Represent and explain addition and subtraction as part-whole relationships, with addition as *putting together* and/or *adding to* and subtraction as *taking apart* and/or *taking from*, using objects, drawings, numbers, and equations.

K.N.4.b Compose and decompose numbers less than or equal to 10 into pairs in more than one way using verbal explanations, objects, or drawings.

K.N.4.c For any number from 1 to 9, find the number that makes 10 when added to the given number, sharing the answer with a model, drawing, or equation.

K.N.4.d Efficiently, flexibly, and accurately add and subtract within 5.

K.N.4.e Solve authentic problems that involve addition and subtraction within 10 (e.g., by using objects, drawings, and equations to represent the problem).

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

SEE NUMBER AND ALGEBRAIC RELATIONSHIPS IN NUMBER (K.N.4)

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

K.G.1 Shapes and Their Attributes: Students will identify and represent the attributes of two-dimensional shapes and three-dimensional solids.

K.G.1.a Identify and name two-dimensional shapes including circles, triangles, squares, and rectangles regardless of orientation or size.

K.G.1.b Identify and name three-dimensional shapes including spheres, cubes, cylinders, and cones regardless of orientation or size.

K.G.1.c Describe the relative positions of shapes in relation to other objects or shapes using terms such as above, below, in front of, behind, and next to.

K.G.1.d Create shapes using given materials and describe one or more of the attributes such as number of sides/corners.

K.G.1.e Combine simple shapes to compose larger shapes.

K.G.2 Measurement: Students will describe and compare measurable attributes.

K.G.2.a Describe measurable attributes of authentic objects including length, capacity, and weight.

K.G.2.b Directly compare two objects with a measurable attribute in common to describe which object is longer/shorter, heavier/lighter, and has more/less-capacity.

K.G.3 Time and Money: Students will know coin names and values and tell time to the hour.

K.G.3.a Identify the name and value of pennies, nickels, and dimes.

K.G.3.b Identify the parts of digital and analog clocks. Tell and write time to the hour using digital clocks and analog clocks using only the hour hand.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

K.D.1 Classification: Students will sort and classify objects using one or more attributes.

K.D.1.a Identify, sort, and classify objects by size, shape, color, and other attributes.

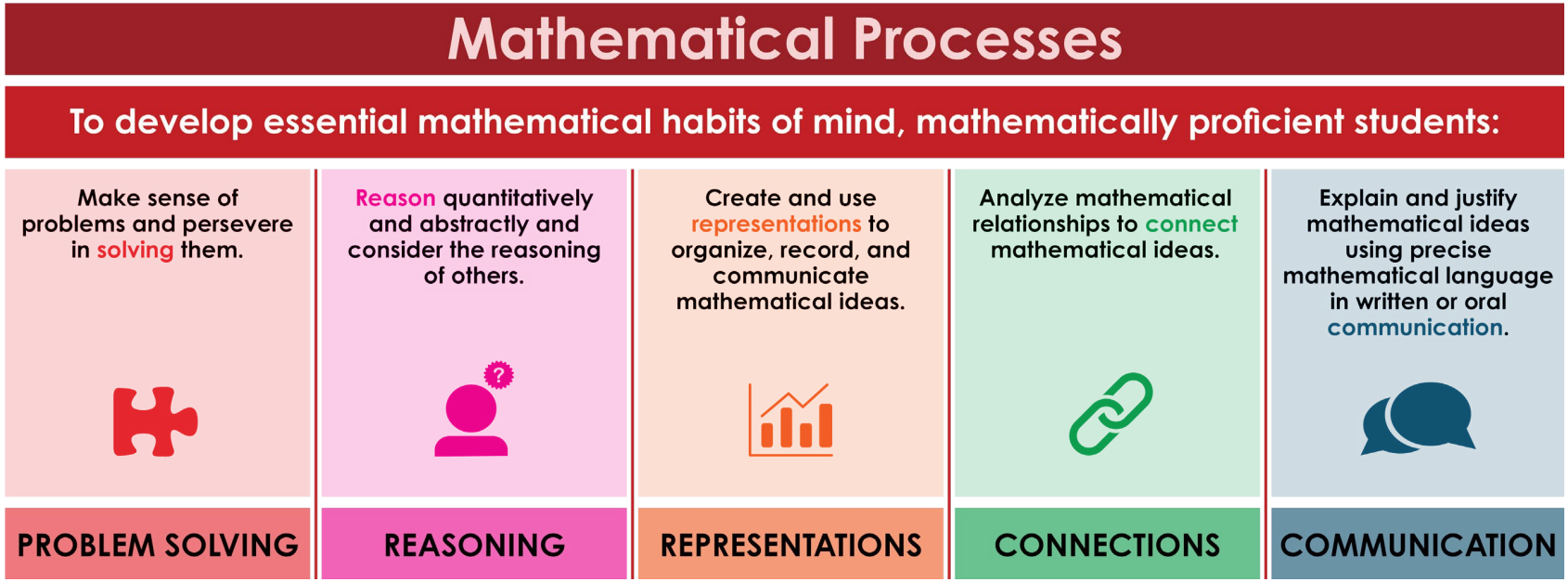
K.D.1.b Identify objects that do not belong to a particular group and explain the reasoning used.

Grade 1 Standards

Grade 1 Content Focus

During Grade 1, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Extending the counting sequence and strategies for solving quantitative questions.
- Representing and solving problems involving addition and subtraction to include work with equations and the properties of the operations.
- Developing understandings of addition and subtraction strategies for basic addition facts and related subtraction facts.
- Developing an understanding of whole number relationships, including grouping in tens and ones.
- Measuring lengths indirectly and by iterating length units.



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NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

1.N.1 Subitizing: Students will quantify briefly shown collections and verbally label the arrangements without counting.

1.N.1.a Without counting, recognize and verbally label arrangements for briefly shown collections up to 20 (e.g.," I saw 16." "How did you know?" "I saw 10 and 6, that is 16").

1.N.2 Counting and Cardinality: Students will understand the relationship between numbers and quantities to extend the counting sequence.

1.N.2.a Count verbally by ones and tens within 120 starting at any given number.

1.N.2.b Count verbally by ones and tens within 120 starting at any given number. Understand that the given number is a direct representation of the total objects in a given set and counting on each successive number represents adding an additional object, and counting back each proceeding number represents removing an object.

1.N.2.c Write numerals to match a representation of a given set of objects for numbers up to 120.

1.N.2.d Understand patterns of skip counting by 2s, 5s, and 10s.

1.N.3 Base Ten: Students will represent and compare two-digit numbers to gain foundations for place value.

1.N.3.a Understand 10 as a bundle, collection, or (more abstractly) composition of ten ones and that the two digits of a two-digit number represent a composition of some tens and some ones.

1.N.3.b Compare two, two-digit numbers using words greater than, less than, equal to, and symbols <, >, =. Justify comparisons based on the number of tens and ones.

1.N.4 Number and Operations: Students will compute using addition and subtraction.

1.N.4.a Add and subtract within 20, using flexible strategies such as counting on or counting back, making ten, using ten, and using doubles and near doubles.

1.N.4.b Efficiently, flexibly, and accurately add and subtract within 10.

1.N.4.c Find the difference between two numbers that are multiples of 10, ranging from 10 to 90 using concrete models, drawings, or strategies, and write the corresponding equation.

1.N.4.d Mentally find 10 more or 10 less than a two-digit number without having to count and explain the reasoning used.

1.N.4.e Add within 100, including adding a two-digit number and a one-digit number, adding a two-digit number and a multiple of ten, using concrete models, drawings, and strategies that reflect an understanding of place value, the relationship between addition and subtraction, and the properties of operations. Relate the strategy to a written method and explain the reasoning used to solve.

1.N.4.f Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; sometimes it is necessary to compose a ten.

1.N.4.g Subtract multiples of ten from two-digit numbers (positive or zero differences) using concrete models, drawings, and strategies that reflect an understanding of place value, the relationship between addition and subtraction, and the properties of operations. Relate the strategy to a written method and explain the reasoning used to solve.

1.N.5 Number and Algebraic Relationships: Students will understand and apply properties of operations and the relationship between addition and subtraction to solve problems.

1.N.5.a Use the meaning of the equal sign to determine if equations are true and give examples of equations that are true (e.g., 4 = 4, 6 = 7 – 1, 6 + 3 = 3 + 6, 7 + 2 = 5 + 4).

1.N.5.b Use the relationship of addition and subtraction to solve subtraction problems (e.g., find 12 – 9 = _____, using the addition fact 9 + 3 = 12).

1.N.5.c Determine the unknown whole number in an addition or subtraction equation (e.g., 7 + ? = 13).

1.N.5.d Use the commutative property of addition to develop addition strategies and compose/decompose numbers to develop addition and subtraction strategies. (See other flexible strategies in 1.N.4.a).

1.N.5.e Solve problems that call for addition of three whole numbers whose sum is less than or equal to 20 using flexible strategies with objects, drawings, and/or equations.

1.N.5.f Solve authentic problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem by using objects, drawings, and/or equations with a symbol for the unknown number to represent the problem.

1.N.5.g Create an authentic problem to represent a given equation involving addition and subtraction within 20.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

SEE NUMBER AND ALGEBRAIC RELATIONSHIPS IN NUMBER (1.N.5)

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

1.G.1 Shapes and Their Attributes: Students will represent and describe the attributes of two-dimensional shapes.

1.G.1.a Determine geometric attributes of two-dimensional shapes regardless of orientation or size for rhombi, trapezoids, and hexagons (e.g., a hexagon is closed with six sides).

1.G.1.b Determine geometric attributes of three-dimensional shapes including cones, cylinders, cubes, and rectangular prisms regardless of orientation or size.

1.G.1.c Describe lines and sides of shapes as parallel or non-parallel.

1.G.1.d Partition circles and rectangles into two and four equal parts using the language halves and fourths.

1.G.2 Measurement: Students will measure and compare lengths.

1.G.2.a Measure the length of an object as a whole number of same-size, non-standard units by placing them end to end.

1.G.2.b Order three objects by directly comparing their lengths or indirectly by using a third object.

1.G.3 Time and Money: Students will solve problems with coins and tell time to the half hour.

1.G.3.a Understand the value of dimes and pennies (e.g., a dime is equal to ten pennies) relating to tens and ones and solve problems involving dimes and pennies using the ¢ symbol appropriately.

1.G.3.b Count collections of like coins (penny, nickel, and dime) relating to patterns of counting by 1s, 5s, and 10s.

1.G.3.c Tell and write time to the half hour and hour using analog and digital clocks.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

1.D.1 Data Collection: Students will formulate questions to collect, organize, and represent data.

1.D.1.a Collect, organize, and represent a data set with up to three categories using a picture graph.

1.D.2 Analyze Data and Interpret Results: Students will analyze the data and interpret the results.

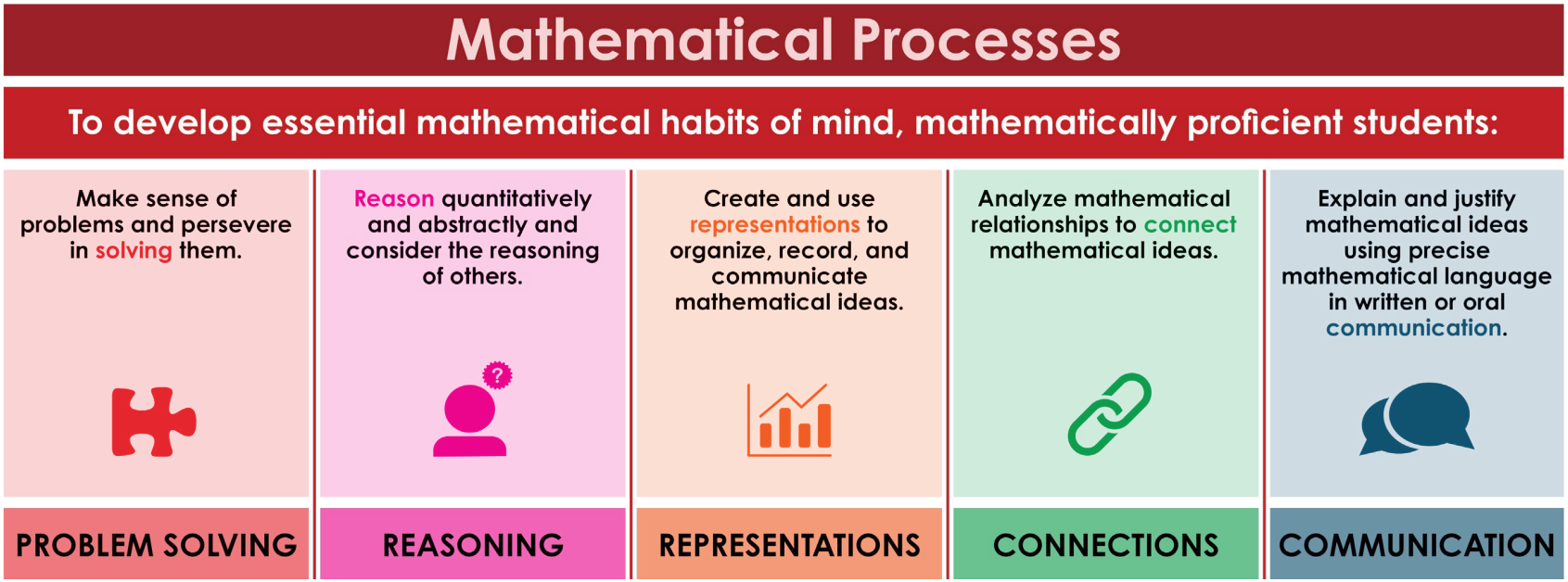
1.D.2.a Ask and answer questions about the total number of data points, how many in each category, and compare categories by identifying how many more or less are in a particular category using a picture graph.

Grade 2 Standards

Grade 2 Content Focus

During Grade 2, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Building on base-ten numeration system and place-value concepts to demonstrate understanding of multi-digit numbers.
- Applying properties of operations and the relationship between adding and subtracting.
- Developing quick recall of addition facts and related subtraction facts.
- Solving problems that involve time and/or money.
- Extending understanding of linear measurement by measuring and estimating lengths and relating length to addition and subtraction.



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

2.N.1 Subitizing: Students will quantify briefly shown collections and verbally label the arrangements without counting.

2.N.1.a Without counting, recognize and verbally label structured arrangements for briefly shown collections using groups, multiplicative thinking, and place value (e.g.," I saw 48." "How did you know?" "I saw 4 groups of 10 and 2 groups of 4 is 8...4 tens and 8 ones...48").

2.N.2 Counting: Students will understand the relationship between numbers and quantities to extend the counting sequence.

2.N.2.a Count within 1,000, including skip counting by 5s, 10s, and 100s starting at a variety of multiples of 5, 10, or 100.

2.N.3 Base Ten: Students will represent and compare three-digit numbers to apply concepts of place value.

2.N.3.a Read and write numbers within the range of 0 to 1,000 using standard, word, and expanded forms.

2.N.3.b Understand 100 as a bundle, collection, or (more abstractly) composition of ten tens and that the three digits of a three-digit number represent a composition of some hundreds, some tens, and some ones.

2.N.3.c Compare two three-digit numbers by using symbols <, >, = and justify the comparison based on the value of the hundreds, tens, and ones.

2.N.4 Number and Operations: Students will compute using addition and subtraction.

2.N.4.a Fluently add and subtract within 20.

2.N.4.b Add and subtract using 100 strategies based on place value including properties of operations, relationships between addition and subtraction, and algorithms.

2.N.4.c Mentally add or subtract 10 or 100 to or from a given number 100 to 900.

2.N.4.d Add up to three two-digit numbers using strategies based on place value and understanding of properties.

2.N.4.e Add and subtract within 1,000 using concrete models, drawings, and strategies that reflect an understanding of place value and the properties of operations.

2.N.5 Number and Algebraic Relationships: Students will create and solve problems involving addition and subtraction and work with equal groups of objects to gain foundations for multiplication.

2.N.5.a Solve authentic problems involving addition and subtraction within 100 in situations of addition and subtraction, including adding to, subtracting from, joining and separating, and comparing situations with unknowns in all positions using objects, models, drawings, verbal explanations, expressions, and equations.

2.N.5.b Create authentic problems to represent one-step addition and subtraction within 100 with unknowns in all positions.

2.N.5.c Use repeated addition to find the total number of objects arranged in an array no larger than five rows and five columns and write an equation to express the total.

2.N.5.d Identify a group of objects from 0 to 20 as even or odd by counting by 2s or by showing even numbers as a sum of two equal parts.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

SEE NUMBER AND ALGEBRAIC RELATIONSHIPS IN NUMBER (2.N.5)

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

2.G.1 Shapes and Their Attributes: Students will recognize and represent the attributes of two-dimensional shapes and three-dimensional solids.

2.G.1.a Recognize and describe all faces of three-dimensional shapes as two-dimensional shapes. Identify and count attributes of solid shapes including the edges, faces, and vertices.

2.G.1.b Recognize and draw two-dimensional shapes having a specific number of sides, angles, and vertices including triangles, quadrilaterals, pentagons, and hexagons.

2.G.1.c Partition a rectangle into rows and columns of equal-sized squares and count to find the total.

2.G.1.d Divide circles and rectangles into two, three, or four equal parts and describe the parts using the language of halves, thirds, fourths, half of, a third of, and a fourth of.

2.G.1.e Recognize that equal shares of identical wholes need not have the same shape.

2.G.2 Describe Measurable Attributes: Students will measure, estimate, and compare lengths to build meaning of the measurement process.

2.G.2.a Measure the length of an object using two different length units and describe how the measurements relate to the size of the specific unit.

2.G.2.b Compare the difference in length of objects using inches and feet or centimeters and meters.

2.G.3 Measurement: Students will use tools to measure and estimate length using standard units.

2.G.3.a Identify and use appropriate tools for measuring length.

2.G.3.b Measure and estimate lengths using whole numbers with inches, feet, centimeters, and meters.

2.G.4 Relate Addition and Subtraction to Measurement: Students will add or subtract to solve length problems.

2.G.4.a Represent whole numbers as equally spaced lengths on a number line diagram. Use number lines to find sums and differences within 100.

2.G.4.b Use addition and subtraction within 100 to solve problems using the same standard-length units.

2.G.5 Time and Money: Students will solve problems with dollar bills and coins and tell time to the nearest five-minute interval.

2.G.5.a Solve problems involving dollar bills, quarters, dimes, nickels, and pennies using $ and ¢ symbols appropriately.

2.G.5.b Identify and write time to five-minute intervals using analog and digital clocks and both a.m. and p.m.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

2.D.1 Data Collection: Students will formulate questions to collect, organize, and represent data.

2.D.1.a Ask authentic questions to generate data and represent the data using scaled picture graphs with up to four categories.

2.D.1.b Ask authentic questions to generate data and represent the data using bar graphs with up to four categories.

2.D.1.c Create and represent a data set by making a line plot using whole numbers.

2.D.2 Analyze Data and Interpret Results: Students will analyze the data and interpret the results.

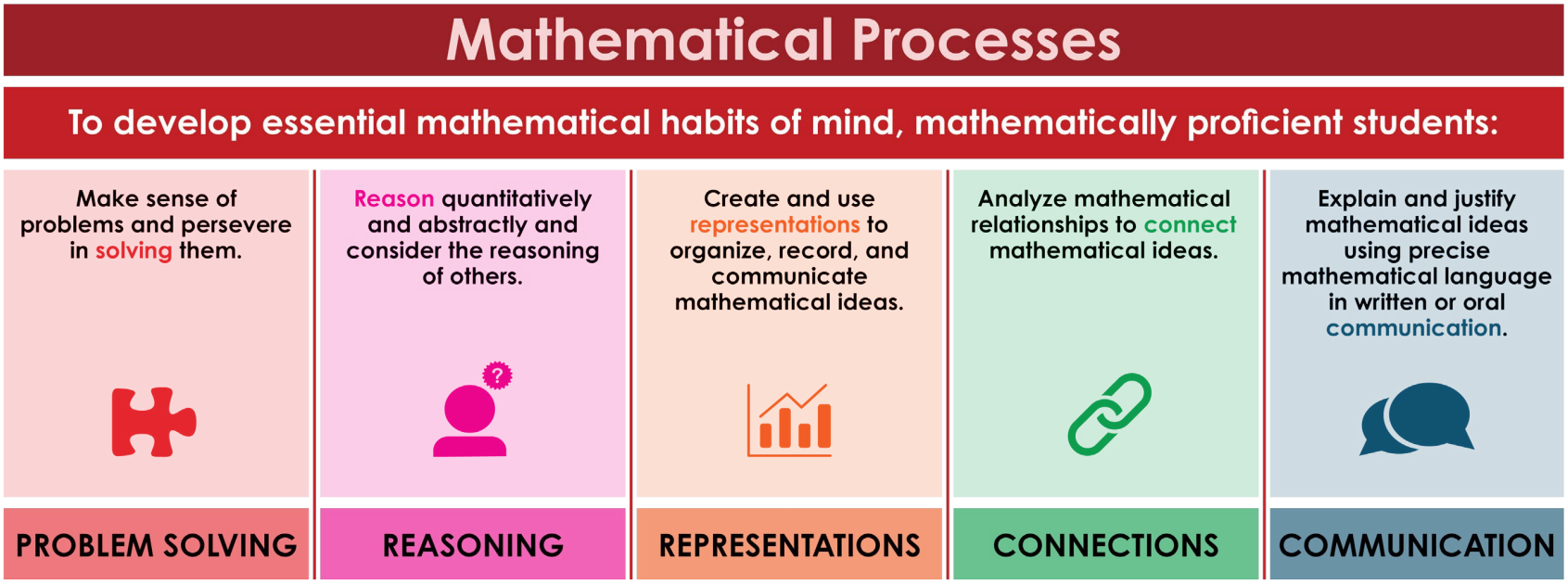
2.D.2.a Analyze data using scaled picture graphs or bar graphs with up to four categories. Solve problems including one-step comparison problems, using information from the graphs.

Grade 3 Standards

Grade 3 Content Focus

During Grade 3, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Building on additive reasoning to develop understanding of multiplication and division
- Exploring multiplication properties and strategies to multiply within 100 flexibly and efficiently
- Developing understanding of fractions as numbers by connecting prior work in partitioning shapes into equal areas to the relationship between numerator and denominator
- Solving problems using visual fraction models to compare and find equivalencies.
- Reasoning with shapes and their attributes.
- Recognizing area as an attribute of two-dimensional shapes and connecting understanding to multiplication.



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

3.N.1 Numeric Relationships: Students will demonstrate and represent multi-digit numbers using place value understanding.

3.N.1.a Read, write, and demonstrate multiple equivalent representations for numbers up to 10,000 using objects or visual representations including standard form and expanded form.

3.N.1.b Represent and justify comparisons of whole numbers up to 10,000 using number lines and reasoning strategies.

3.N.2 Fractions: Students will develop understanding of fractions as numbers.

3.N.2.a Partition two-dimensional figures into equal areas and express the area of each part as a unit fraction of the whole.

3.N.2.b Find parts of a whole using visual fraction models.

3.N.2.c Represent and understand a fraction as a number on a number line.

3.N.2.d Show and identify equivalent fractions using visual representations including pictures, manipulatives, and number lines.

3.N.2.e Justify whole numbers as fractions and identify fractions that are equivalent to whole numbers.

3.N.2.f Compare and order fractions having the same numerators or denominators by reasoning about their size.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

3.A.1 Operations and Algebraic Thinking: Students will extend understanding of multiplication and apply operational properties to solve problems.

3.A.1.a Add and subtract up to four-digit whole numbers with or without regrouping using strategies based on place value and algorithms.

3.A.1.b Determine the reasonableness of whole number sums and differences using estimations and number sense.

3.A.1.c Solve and write one-step whole number equations to represent authentic problems using the four operations including equations with an unknown start, unknown change, or unknown result.

3.A.1.d Interpret and solve two-step authentic problems involving whole numbers and the four operations.

3.A.1.e Apply commutative, associative, distributive, identity, and zero properties as strategies to multiply and divide.

3.A.1.f Use drawings, words, arrays, symbols, repeated addition, equal groups, and number lines to interpret and explain the meaning of multiplication and division and their relationship.

3.A.1.g Fluently multiply and divide within 100 using strategies based on understanding and properties of operations.

3.A.1.h Multiply one-digit whole numbers by multiples of 10 in the range of 10 to 90 using strategies based on place value and properties of operations.

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

3.G.1 Shapes and Their Attributes: Students will recognize and represent the attributes of two-dimensional shapes.

3.G.1.1 Sort quadrilaterals into categories according to their attributes.

3.G.2 Area and Perimeter: Students will recognize perimeter and area as attributes of plane figures and understand concepts of area measurement.

3.G.2.a Solve authentic problems involving perimeters of polygons when given the side lengths or when given the perimeter and unknown side length(s).

3.G.2.b Use concrete and pictorial models to measure areas in square units by counting square units.

3.G.2.c Find the area of a rectangle with whole-number side lengths by modeling with unit squares; show that area can be additive and is the same as would be found by multiplying the side lengths.

3.G.3 Measurement: Students will use tools to solve measurement problems.

3.G.3.a Identify and use the appropriate tools and units of measurement, both customary and metric, to solve authentic problems involving length, weight, mass, liquid volume, and capacity (within the same system and unit).

3.G.3.b Estimate and measure length to the nearest half inch, fourth inch, and centimeter.

3.G.4 Time: Students will tell time to the nearest minute and find elapsed time.

3.G.4.a Tell and write time to the minute using both analog and digital clocks.

3.G.4.b Solve authentic problems involving addition and subtraction of time intervals and find elapsed time.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

3.D.1 Data Collection: Students will formulate questions to collect, organize, and represent data.

3.D.1.a Create scaled picture graphs and scaled bar graphs to represent a data set with more than four categories, including data collected through observations, surveys, and experiments.

3.D.1.b Generate and represent data using line plots where the horizontal scale is marked off in halves and whole number units.

3.D.2 Analyze Data and Interpret Results: Students will analyze the data and interpret the results.

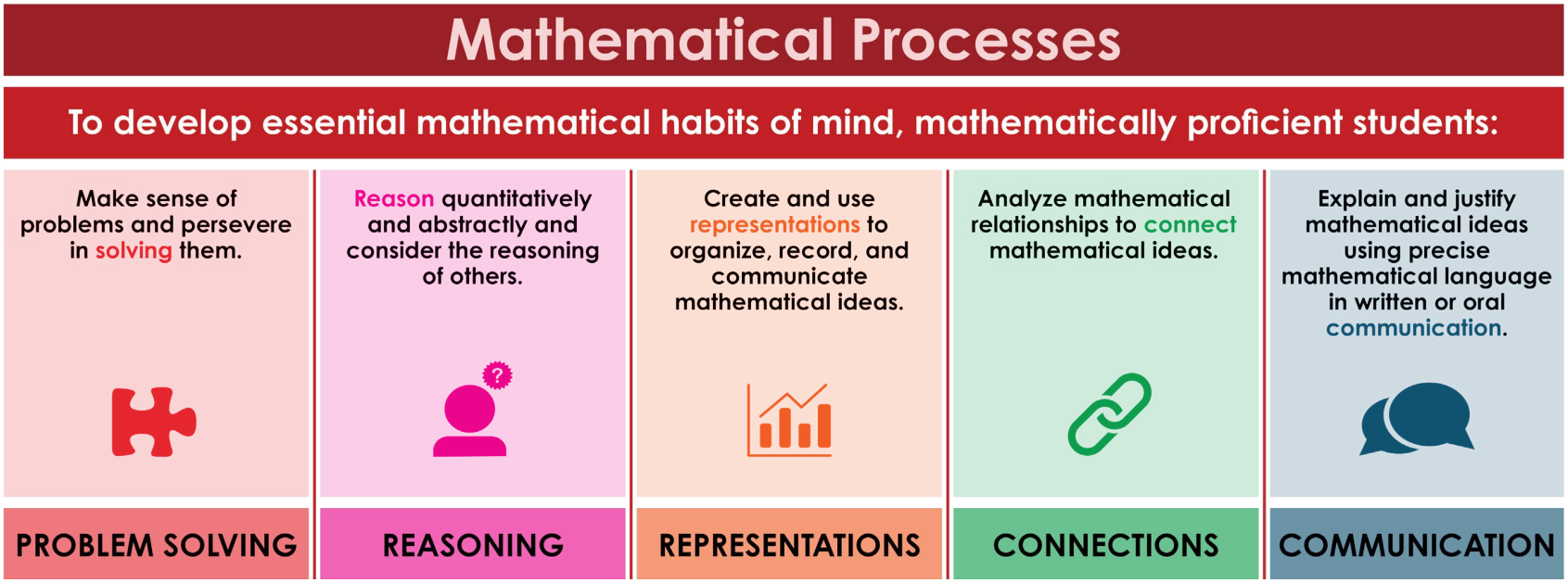
3.D.2.a Analyze data and make simple statements using information represented in picture graphs, line plots, and bar graphs.

Grade 4 Standards

Grade 4 Content Focus

During Grade 4, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Developing understanding and fluency with multi-digit multiplication through visual models and operational properties.
- Developing understanding of division involving multi-digit dividends using place value models.
- Extending understanding of fraction equivalence and operations with fractions by composing and decomposing, reasoning about relative size, and applying properties of operations.
- Classifying two-dimensional shapes according to their attributes such as the presence or absence of lines or angles.
- Developing understanding of an angle as a turn in a circle and justify the classification of angles as acute, obtuse, and right.



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.N.1 Numeric Relationships: Students will demonstrate and represent multi-digit numbers using relationships with the base-ten number system.

4.N.1.a Read, write, and demonstrate multiple equivalent representations for whole numbers up to 1,000,000 and decimals to the hundredths using visual representations, standard form, and expanded form.

4.N.1.b Represent and justify comparisons of whole numbers up to 1,000,000 and decimals through the hundredths place using number lines and reasoning strategies.

4.N.1.c Recognize a digit in one place represents ten times what it represents in the place to its right.

4.N.1.d Use decimal notation for fractions with denominators of 10 or 100 (e.g., 43/100 = 0.43).

4.N.2 Fractions and Decimals: Students will extend understanding of fractions by equivalence and ordering and will develop an understanding of decimals.

4.N.2.a Explain and demonstrate how a mixed number is equivalent to a fraction greater than one and how a fraction greater than one is equivalent to a mixed number using visual fraction models and reasoning strategies.

4.N.2.b Explain and demonstrate how equivalent fractions are generated by multiplying by a fraction equivalent to 1 using visual fraction models and the Identity Property of Multiplication.

4.N.2.c Compare and order fractions having unlike numerators or denominators using number lines, benchmarks, reasoning strategies, and/or equivalence.

4.N.3 Operations with Fractions: Students will understand and demonstrate fractional computation.

4.N.3.a Decompose a fraction into a sum of fractions with the same denominator in more than one way and record each decomposition with an equation and a visual representation.

4.N.3.b Explain the meaning of addition and subtraction of fractions with like denominators using visual fraction models, properties of operations, and reasoning strategies.

4.N.3.c Add and subtract fractions and mixed numbers with like denominators.

4.N.3.d Solve authentic problems involving addition and subtraction of fractions and mixed numbers with like denominators.

4.N.3.e Multiply a fraction by a whole number using visual fraction models and properties of operations.

4.N.4 Factors and Multiples: Students will find factors and multiples and classify numbers as prime or composite.

4.N.4.a Determine whether a given whole number up to 100 is a multiple of a given one-digit number.

4.N.4.b Determine factors of any whole number up to 100 and classify a number up to 100 as prime or composite.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.A.1 Operations and Algebraic Thinking: Students will extend understanding of multiplication and division and apply operational properties to solve problems involving variables.

4.A.1.a Add and subtract multi-digit numbers using an algorithm.

4.A.1.b Multiply up to a four-digit whole number by a one-digit whole number and multiply a two-digit whole number by a two-digit whole number, using strategies based on place value, properties of operations, and algorithms.

4.A.1.c Divide up to a four-digit whole number by a one-digit divisor with and without a remainder using strategies based on place value.

4.A.1.d Determine the reasonableness of whole number products and quotients using estimations and number sense.

4.A.1.e Create a simple algebraic expression or equation using a variable for an unknown number to represent an authentic mathematical situation (e.g., 3 + n = 15, 81 ÷ n = 9).

4.A.1.f Solve one- and two-step authentic problems using the four operations including interpreting remainders and the use of a letter to represent the unknown quantity.

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.G.1 Shapes and Their Attributes: Students will draw and identify lines and angles and classify shapes by properties of their lines and angles.

4.G.1.a Identify, create, and describe points, lines, line segments, rays, angles, parallel lines, perpendicular lines, and intersecting lines.

4.G.1.b Justify the classification of angles as acute, obtuse, or right.

4.G.1.c Justify the classification of two-dimensional shapes based on the presence or absence of parallel and perpendicular lines or the presence or absence of specific angles.

4.G.1.d Recognize, draw, and justify lines of symmetry in two-dimensional shapes.

4.G.2 Measurement: Students will generate simple conversions from a larger unit to a smaller unit to solve authentic problems and measure angles.

4.G.2.a Identify and use the appropriate tools, operations, and units of measurement, both customary and metric, to solve authentic problems involving time, length, weight, mass, and capacity.

4.G.2.b Determine the reasonableness of measurements involving time, length, weight, mass, capacity, and angles.

4.G.2.c Generate simple conversions from a larger unit to a smaller unit within the customary and metric systems of measurement.

4.G.2.d Measure angles in whole number degrees using a protractor and relate benchmark angle measurements to their rotation through a circle (e.g., 180º = 1/2 of a circle).

4.G.2.e Recognize angle measures as additive and solve problems involving addition and subtraction to find unknown angles on a diagram.

4.G.3 Area and Perimeter: Students will apply perimeter and area formulas for rectangles.

4.G.3.a Apply perimeter and area formulas for rectangles to solve authentic problems.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

4.D.1 Data Collection: Students will formulate questions to collect, organize, and represent data.

4.D.1.a Generate and represent data using line plots where the horizontal scale is marked off in appropriate units—whole numbers, halves, fourths, or eighths.

4.D.2 Analyze Data and Interpret Results: Students will analyze the data and interpret the results.

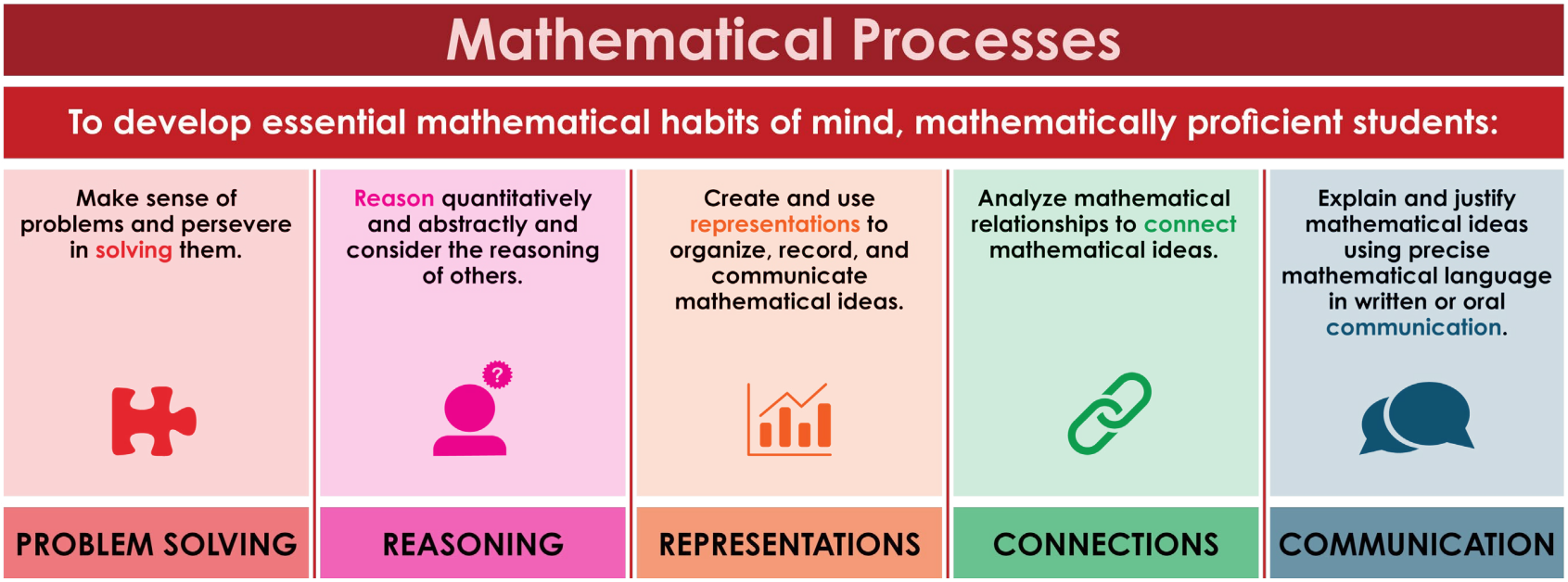
4.D.2.a Solve authentic problems and analyze data involving addition or subtraction of fractions presented in line plots.

Grade 5 Standards

Grade 5 Content Focus

During Grade 5, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Extending previous understandings of multiplication and division to multiply and divide fractions and decimals.
- Performing operations with multi-digit whole numbers and decimals to the hundredths in order to solve authentic problems following the order of operations.
- Categorizing shapes using knowledge of their attributes.
- Developing concepts of volume and relating volume to multiplication and addition.



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NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

5.N.1 Numeric Relationships: Students will understand the place value system.

5.N.1.a Read, write, and demonstrate multiple equivalent representations for multi-digit whole numbers and decimals through the thousandths place using standard form and expanded form.

5.N.1.b Recognize a digit in one place represents 1/10 of what it represents in the place to its left.

5.N.1.c Use whole number exponents to denote powers of 10.

5.N.2 Fractions and Decimals: Students will extend understanding of fraction and decimal equivalence and ordering.

5.N.2.a Generate equivalent forms of commonly used fractions and decimals (e.g., halves, fourths, fifths, tenths).

5.N.2.b Represent and justify comparisons of whole numbers, fractions, mixed numbers, and decimals through the thousandths place using number lines, reasoning strategies, and/or equivalence.

5.N.3 Operations with Fractions and Decimals: Students will apply and extend previous understandings of whole number operations to add, subtract, multiply and divide fractions and decimals.

5.N.3.a Interpret a fraction as division of the numerator by the denominator.

5.N.3.b Multiply a whole number by a fraction or a fraction by a fraction, including mixed numbers, using visual fraction models and properties of operations.

5.N.3.c Divide a unit fraction by a whole number and a whole number by a unit fraction using visual fraction models and properties of operations.

5.N.3.d Solve authentic problems involving addition, subtraction, and multiplication of fractions and mixed numbers with like and unlike denominators.

5.N.3.e Add and subtract fractions and mixed numbers with unlike denominators without simplifying.

5.N.3.f Solve authentic problems involving division of unit fractions by whole numbers and division of whole numbers by unit fractions.

5.N.3.g Add, subtract, multiply, and divide decimals to hundredths using strategies based on place value, properties of operations, and/or algorithms.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

5.A.1 Operations and Algebraic Thinking: Students will extend understanding of division and apply operational properties to solve problems involving order of operations.

5.A.1.a Multiply multi-digit whole numbers using an algorithm.

5.A.1.b Divide four-digit whole numbers by a two-digit divisor, with and without remainders, using strategies based on place value.

5.A.1.c Justify the reasonableness of computations involving whole numbers, fractions, and decimals.

5.A.1.d Simplify authentic numerical or algebraic expressions using order of operations (excluding exponents).

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

5.G.1 Shapes and Their Attributes: Students will classify two-dimensional figures into categories based on their properties.

5.G.1.a Identify and describe faces, edges, and vertices of rectangular prisms.

5.G.1.b Recognize volume as an attribute of solid figures that is measured in cubic units.

5.G.1.c Justify the classification of two and three-dimensional figures in a hierarchy based on their properties.

5.G.2 Coordinate Geometry: Graph points on the coordinate plane to solve authentic problems.

5.G.2.a Identify the origin, x axis, and y axis of the coordinate plane.

5.G.2.b Graph and name points in the first quadrant of the coordinate plane using ordered pairs of whole numbers.

5.G.2.c Form ordered pairs from authentic problems involving rules or patterns, graph the ordered pairs in the first quadrant on a coordinate plane, and interpret coordinate values in the context of the situation.

5.G.3 Measurement: Generate conversions within the customary and metric systems of measurement to solve authentic problems.

5.G.3.a Generate conversions in authentic mathematical situations from larger units to smaller units and smaller units to larger units, within the customary and metric systems of measurement.

5.G.4 Area and Volume: Students will extend area problems for rectangles to include fractions and build meaning for measuring volume.

5.G.4.a Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the fraction side lengths and show that the area is the same as would be found by multiplying the side lengths.

5.G.4.b Multiply fractional side lengths to find areas of rectangles and represent fraction products as rectangular areas.

5.G.4.c Use concrete models to measure the volume of rectangular prisms by counting cubic units.

5.G.4.d Find the volume of a rectangular prism with whole-number side lengths by modeling with unit cubes and show that the volume can be additive and is the same as would be found by multiplying the area of the base times height.

5.G.4.e Solve authentic problems by applying the formulas $V = l \times w \times h$ and $V = B \times h$ for rectangular prisms to find volumes of rectangular prisms with whole number edge lengths.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

5.D.1 Data Collection: Students will formulate questions to collect, organize, and represent data.

No additional indicators at this level.

5.D.2 Analyze Data and Interpret Results: Students will analyze the data and interpret the results.

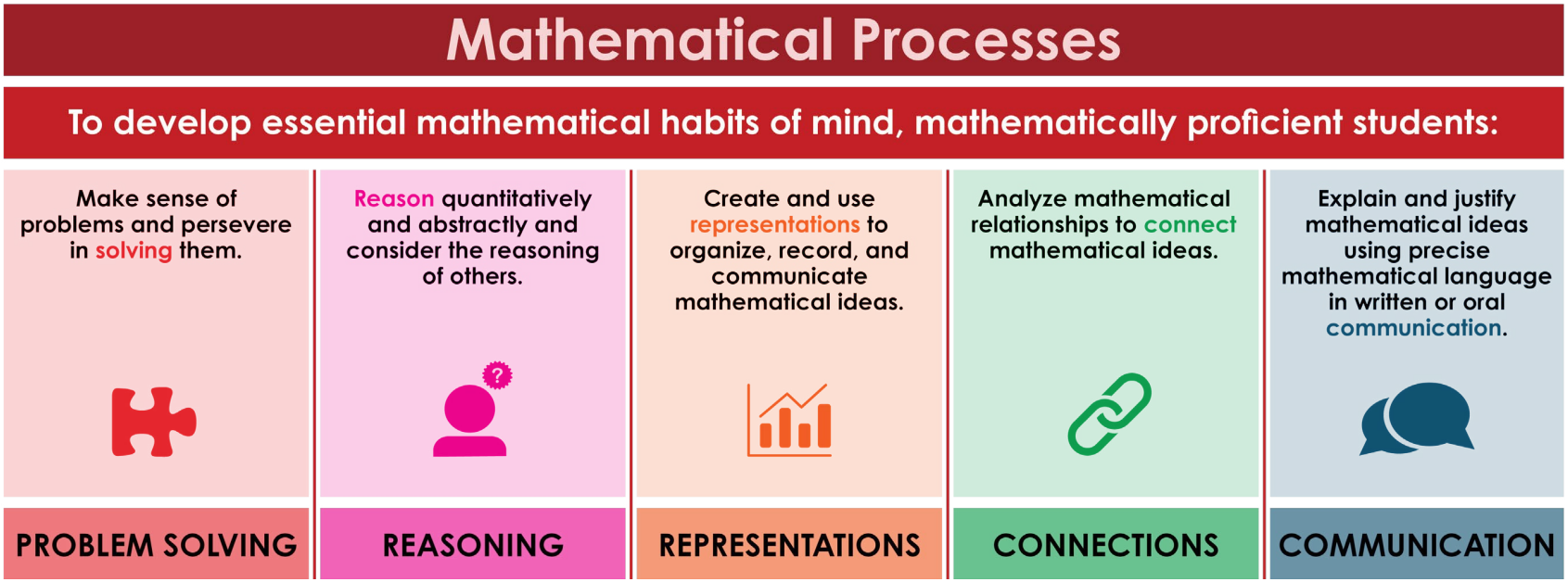
5.D.2.a Represent, analyze, and solve authentic problems using information presented in one or more tables or line plots including whole numbers and fractions.

Grade 6 Standards

Grade 6 Content Focus

During Grade 6, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems.
- Completing computational understanding with the division of fractions and moving towards efficiency by using the algorithm for each operation.
- Extending understanding of the number line to include the entire system of rational numbers, which now includes negative numbers.
- Writing and using expressions and equations
- Representing data in multiple ways in order to analyze and interpret the results.



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

6.N.1 Numeric Relationships: Students will demonstrate, represent, and show relationships among fractions, decimals, percents, and integers within the base-ten number system.

6.N.1.a Determine common factors and common multiples.

6.N.1.b Determine prime factorization of numbers with and without exponents.

6.N.1.c Model integers using drawings, words, number lines, models, and symbols.

6.N.1.d Determine absolute value of rational numbers.

6.N.1.e Compare and order numbers including non-negative fractions and decimals, integers, and absolute values and locate them on the number line.

6.N.2 Operations: Students will compute with fractions and decimals accurately.

6.N.2.a Divide multi-digit whole numbers and decimals using an algorithm.

6.N.2.b Divide non-negative fractions and mixed numbers.

6.N.2.c Evaluate numerical expressions including absolute value and/or positive exponents with respect to order of operations.

RATIOS AND PROPORTIONS: Students will understand ratio concepts and use ratio reasoning to solve problems.[2]

6.R.1 Ratios and Rates: Students will understand the concept of ratios and unit rates, use language to describe the relationship between two quantities, and use ratios and unit rates to solve authentic situations.

6.R.1.a Determine ratios from concrete models, drawings, and/or words.

6.R.1.b Explain and determine unit rates.

6.R.1.c Find a percent of a quantity as a rate per 100 and solve problems involving finding the whole, given a part and the percent.

6.R.1.d Convert among fractions, decimals, and percents using multiple representations.

6.R.1.e Solve authentic problems using ratios, unit rates, and percents.

6.R.1.f Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.

[2] Ratios and Proportions is a new content strand found only in Grades 6 and 7.

6.R.2 Represent: Students will represent ratios and rates on the coordinate plane.

6.R.2.a Identify the ordered pair of a given point in the coordinate plane.

6.R.2.b Plot the location of an ordered pair in the coordinate plane.

6.R.2.c Identify the location of a given point in the coordinate plane (e.g., axis, origin, quadrant).

6.R.2.d Make tables of equivalent ratios relating quantities with whole number measurements.

6.R.2.e Use the constant of proportionality to find the missing value in ratio tables.

6.R.2.f Plot the pair of values from a ratio table on the coordinate plane.

6.R.2.g Explain what a point (x, y) on the graph of a proportional relationship means in terms of the situation.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

6.A.1 Algebraic Processes: Students will apply the operational properties when evaluating expressions and solving equations and inequalities.

6.A.1.a Recognize and generate equivalent algebraic expressions involving the distributive property and combining like terms.

6.A.1.b Given the value of the variable, evaluate algebraic expressions with non-negative rational numbers with respect to order of operations, which may include absolute value.

6.A.1.c Use substitution to determine if a given value for a variable makes an equation or inequality true.

6.A.1.d Solve one-step equations with non-negative rational numbers using addition, subtraction, multiplication, and division.

6.A.1.e Solve one-step inequalities with whole numbers using addition, subtraction, multiplication, and division and represent solutions on a number line (e.g., graph $3x > 3$).

6.A.2 Applications: Students will solve authentic problems with algebraic expressions, equations, and inequalities.

6.A.2.a Create algebraic expressions (e.g., one operation, one variable as well as multiple operations, one variable) from word phrases.

6.A.2.b Write equations (e.g., one operation, one variable) to represent authentic situations involving non- negative rational numbers.

6.A.2.c Write inequalities (e.g., one operation, one variable) to represent authentic situations involving whole numbers.

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

6.G.1 Attributes: Students will identify and describe geometric attributes of two- dimensional shapes.

6.G.1.a Identify and create nets to represent two-dimensional drawings of prisms and pyramids.

6.G.2 Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.

SEE WORK WITH COORDINATE PLANES IN RATIOS AND PROPORTIONS (6.R.2)

6.G.3 Measurement: Students identify geometric attributes that create two- and three-dimensional shapes in order to perform measurements and apply formulas to find area and volume.

6.G.3.a Determine the area of quadrilaterals and triangles by composition and decomposition of these shapes, as well as applications of properties and formulas. Quadrilaterals include parallelograms and trapezoids.

6.G.3.b Determine the surface area of rectangular prisms and triangular prisms using nets as well as application of formulas.

6.G.3.c Apply volume formulas for triangular prisms.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

6.D.1 Data Collection and Statistical Methods: Students will formulate statistical investigative questions, collect data, and organize data.

No additional indicators at this level.

6.D.2 Analyze Data and Interpret Results: Students will represent and analyze the data and interpret the results.

6.D.2.a Represent data using dot plots, box-and-whisker plots, and histograms.

6.D.2.b Solve problems using information presented in dot plots, box-and-whisker plots, histograms, and circle graphs.

6.D.2.c Find and interpret the mean, median, mode, and range for a set of data.

6.D.2.d Compare the mean, median, mode, and range from two sets of data.

6.D.2.e Compare and interpret data sets based upon their measures of central tendency and graphical representations (e.g., center, spread, shape).

6.D.3 Probability: Students will interpret and apply concepts of probability.

6.D.3.a Identify a list of possible outcomes for a simple event.

6.D.3.b Describe the theoretical and experimental probability of an event using a fraction, percentage, and decimal.

6.D.3.c Express the degree of likelihood (possible, impossible, certain, more likely, equally likely, or less likely) of simple events.

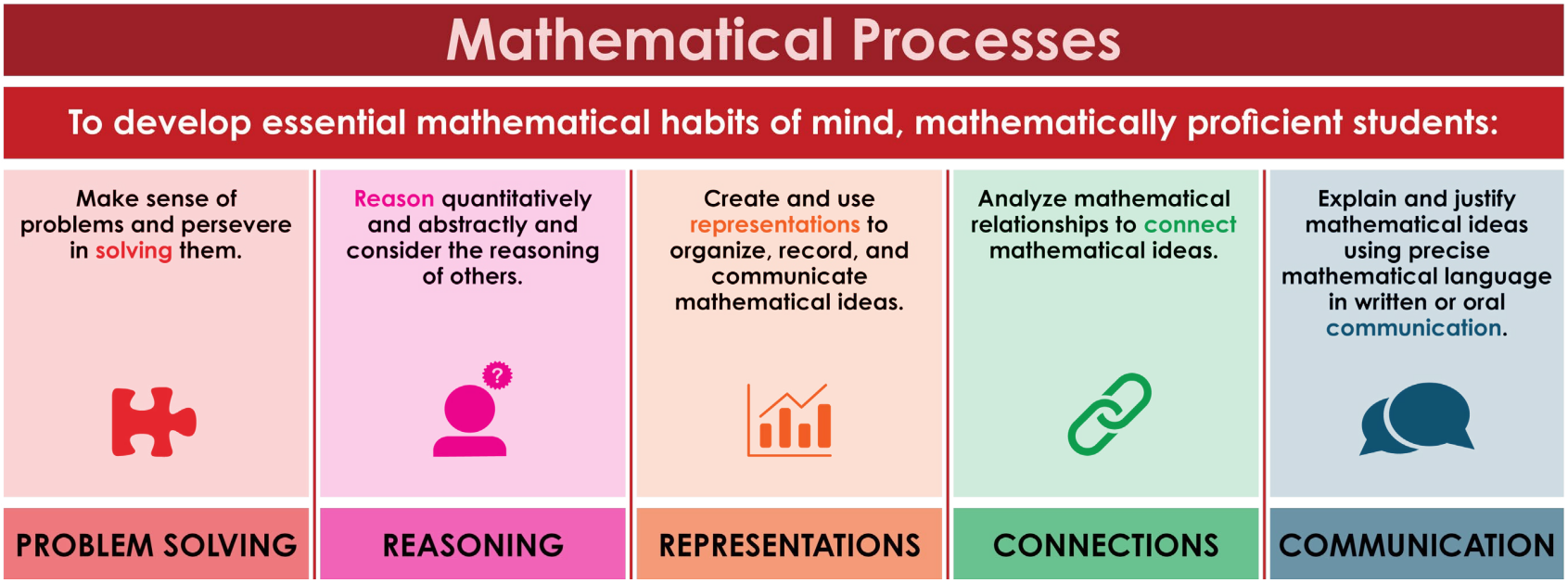
6.D.3.d Compare and contrast theoretical and experimental probabilities.

Grade 7 Standards

Grade 7 Content Focus

During Grade 7, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Developing an understanding of proportional relationships.
- Understanding operations with rational numbers.
- Using expressions and linear equations to represent and solve problems.
- Solving problems involving perimeter and area of two-dimensional figures as well as surface area and volume of three-dimensional figures.
- Investigating probability concepts.



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

7.N.1 Numeric Relationships: Students will demonstrate, represent, and show relationships among rational numbers within the base-ten number system.

No additional indicator(s) at this level.

7.N.2 Operations: Students will compute with rational numbers accurately.

7.N.2.a Add, subtract, multiply, and divide rational numbers (e.g., positive and negative fractions, decimals, and integers).

7.N.2.b Apply properties of operations (commutative, associative, distributive, identity, inverse, zero) as strategies for problem solving with rational numbers.

[3]RATIOS AND PROPORTIONS: Students will understand ratio concepts and use ratio reasoning to solve problems.

7.R.1 Proportional Relationships: Students will understand the concept of proportions, use language to describe the relationship between two quantities, and use proportions to solve authentic situations.

7.R.1.a Decide whether two quantities are in a proportional relationship (e.g., by testing for equivalent ratios in a table).

7.R.1.b Represent and solve authentic problems with proportions.

7.R.1.c Use proportional relationships to solve authentic percent problems (e.g., percent change, sales tax, mark-up, discount, tip).

7.R.1.d Solve authentic problems involving scale drawings.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

7.A.1 Algebraic Processes: Students will apply the operational properties when evaluating expressions, and solving equations and inequalities.

7.A.1.a Use factoring and properties of operations to create equivalent algebraic expressions (e.g., 2x + 6 = 2(x + 3)).

[3] Ratios and Proportions is a new content strand found only in Grades 6 and 7.

7.A.1.b Given the value of the variable(s), evaluate algebraic expressions, which may include absolute value.

7.A.1.c Solve one- and two-step equations involving rational numbers.

7.A.1.d Solve equations using the distributive property and combining like terms.

7.A.1.e Solve one- and two-step inequalities involving integers and represent solutions on a number line.

7.A.2 Applications: Students will solve authentic problems with algebraic expressions, equations, and inequalities.

7.A.2.a Write one- and two-step equations involving rational numbers from words, tables, and authentic situations.

7.A.2.b Write one- and two-step inequalities to represent authentic situations involving integers.

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

7.G.1 Attributes: Students will identify angle relationships and apply properties to determine angle measures.

7.G.1.a Apply properties of adjacent, complementary, supplementary, linear pair, and vertical angles to find missing angle measures.

7.G.2 Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.

7.G.2.a Draw polygons in the coordinate plane given coordinates for the vertices.

7.G.2.b Calculate vertical and horizontal distances in the coordinate plane to find perimeter and area of rectangles.

7.G.3 Measurement: Students will identify geometric attributes that create two- and three-dimensional shapes in order to perform measurements and apply formulas to find area and volume.

7.G.3.a Solve authentic problems involving perimeter and area of composite shapes made from triangles and quadrilaterals.

7.G.3.b Determine surface area and volume of composite rectangular and triangular prisms.

7.G.3.c Determine the area and circumference of circles both on and off the coordinate plane using 3.14 for the value of Pi.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

7.D.1 Data Collection and Statistical Methods: Students will formulate statistical investigative questions, collect data, and organize data.

7.D.1.a Create an investigative question and collect data.

7.D.1.b Generate conclusions about a population based on a random sample.

7.D.1.c Identify and critique biases in various data representations.

7.D.2 Analyze Data and Interpret Results: Students will represent and analyze the data and interpret the results.

No additional indicator(s) at this level.

7.D.3 Probability: Students will interpret and apply concepts of probability.

7.D.3.a Find theoretical and experimental probabilities for compound independent and dependent events.

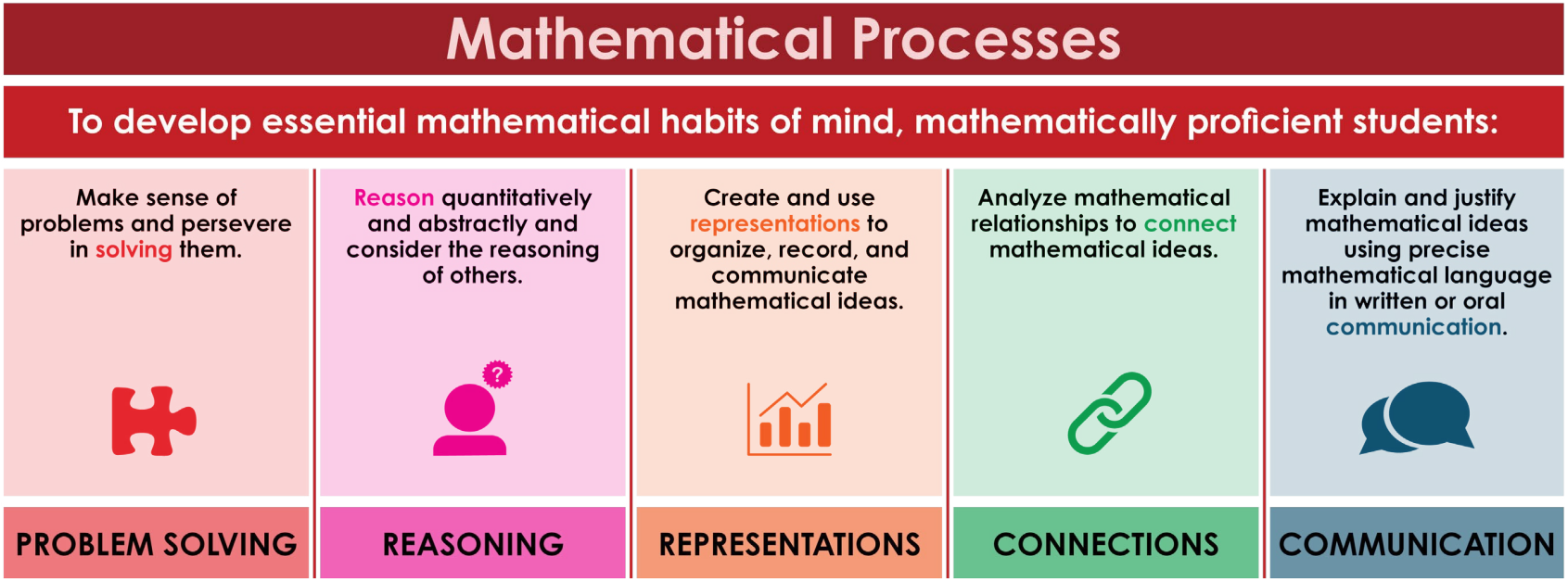
7.D.3.b Identify complementary events and calculate their probabilities.

Grade 8 Standards

Grade 8 Content Focus

During Grade 8, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the grade-level content. Instruction should focus on these critical areas:

- Using linear equations to represent, analyze, and solve a variety of problems.
- Developing an understanding of irrational numbers and integer exponents.
- Analyzing two-dimensional figures and solving problems using understanding of distance, angle, similarity, and congruence.
- Understanding and applying the Pythagorean Theorem.
- Determining and describing rate of change and y-intercept for given situations.



Approved by the Nebraska State Board of Education on September 2, 2022

NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

8.N.1 Numeric Relationships: Students will demonstrate, represent, and show relationships among real numbers within the base-ten number system.

8.N.1.a Determine subsets of numbers as natural, whole, integer, rational, irrational, or real based on the definitions of these sets of numbers.

8.N.1.b Represent numbers with positive and negative exponents and in scientific notation.

8.N.1.c Describe the difference between a rational and irrational number.

8.N.1.d Approximate, compare, and order real numbers, both rational and irrational, and locate them on the number line.

8.N.2 Operations: Students will compute with exponents and roots.

8.N.2.a Evaluate the square roots of perfect squares less than or equal to 400 and cube roots of perfect cubes less than or equal to 125.

8.N.2.b Simplify numerical expressions involving integer exponents, square roots, and cube roots (e.g., 4^{-2} is the same as 1/16).

8.N.2.c Evaluate numerical expressions involving absolute value.

8.N.2.d Multiply and divide numbers using scientific notation.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

8.A.1 Algebraic Processes: Students will apply the operational properties when evaluating expressions and solving equations.

8.A.1.a Describe single variable equations as having one solution, no solution, or infinitely many solutions.

8.A.1.b Solve multi-step equations involving rational numbers with the same variable appearing on both sides of the equation.

8.A.1.c Solve equations of the form $x^2 = k (k <= 400)$ and $x^3 = k (k <= 125)$, where k is a positive rational number, using square root and cube root symbols.

8.A.2 Applications: Students will solve authentic problems involving multi-step equations.

8.A.2.a Write multi-step single variable equations from words, tables, and authentic situations.

8.A.2.b Determine and describe the rate of change for given situations through the use of tables and graphs.

8.A.2.c Graph proportional relationships and interpret the rate of change.

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

8.G.1 Attributes: Students will apply properties of angle relationships in triangles and with lines to determine angle measures.

8.G.1.a Determine and use the relationships of the interior angles of a triangle to solve for missing measures.

8.G.1.b Identify and apply geometric properties of parallel lines cut by a transversal and the resulting corresponding same side interior, alternate interior, and alternate exterior angles to find missing measures.

8.G.2 Coordinate Geometry: Students will determine location, orientation, and relationships on the coordinate plane.

8.G.2.a Perform and describe positions and orientations of shapes under single transformations including rotations in multiples of 90 degrees about the origin, translations, reflections, and dilations on and off the coordinate plane.

8.G.2.b Determine if two-dimensional figures are congruent or similar.

8.G.2.c Perform and describe positions and orientations of shapes under a sequence of transformations on and off the coordinate plane.

8.G.3 Measurement: Students will reason with formulas and context to determine and compare length, area, and volume.

8.G.3.a Explain a model of the Pythagorean Theorem.

8.G.3.b Apply the Pythagorean Theorem to find side lengths of triangles and to solve authentic problems.

8.G.3.c Find the distance between any two points on the coordinate plane using the Pythagorean Theorem.

8.G.3.d Determine the volume of cones, cylinders, and spheres and solve authentic problems using volumes.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

8.D.1 Data Collection and Statistical Methods: Students will formulate statistical investigative questions, collect data, and organize data.

No additional indicator(s) at this level.

8.D.2 Analyze Data and Interpret Results: Students will represent and analyze the data and interpret the results.

8.D.2.a Represent and interpret bivariate data (e.g., ordered pairs) using scatter plots.

8.D.2.b Describe patterns such as positive or negative association, linear or nonlinear association, clustering, and outliers when bivariate data is represented on a coordinate plane.

8.D.2.c Draw an informal line of best fit based on the closeness of the data points to the line.

8.D.2.d Use a linear model to make predictions and interpret the rate of change and y-intercept in context.

8.D.3 Probability: Students will interpret and apply concepts of probability.

No additional indicator(s) at this level.

High School Standards

High School Content Focus

During high school, instruction should emphasize the development of the mathematical processes as the vehicle for mastering the content standards. The content standards are designed to be accessible to each and every high school student prior to graduation whereas the Advanced Topics reflect the mathematical content leading to certain career interests. Schools have the flexibility to organize the standards into integrated or strand-focused courses.

NUMBER: Instruction in Number should focus on these critical areas:

- Working in authentic contexts, solutions involve quantities, numbers with units.
- Using units, approximations, and estimations to check the reasonableness of their work.
- Understanding how forms of approximation can accumulate errors when problem solving.
- Understanding the four operations on real numbers applies to complex numbers.

ALGEBRA: Instruction in Algebra should focus on these critical areas:

- Solving many authentic problems to best understand patterns, expressions, relations, and functions.
- Using algebraic symbols and mathematical models to represent and demonstrate an understanding of quantitative relationships.
- Analyzing change as it arises in various contexts such as physical and social as supported by algebraic reasoning and the concept of function.
- Interpreting the functions in multiple representations, using their points of interest, and connecting across multiple representations to understand their mathematical equivalence instead of rote steps or procedures.

GEOMETRY: Instruction in Geometry should focus on these critical areas:

- Using mathematics to define the spatial attributes of the world around us.
- Exploring transformations (translations, reflections, rotations, and dilations) to build a foundation to understand congruence, similarity, and symmetry.
- Formalizing geometric concepts using planar geometry, parallelism, congruence, similarity, and symmetry.
- Connecting algebra and geometry via coordinate geometry, planar transformations, and trigonometry.
- Developing skills of argumentation and proof by proving congruence, similarity, symmetry, and other concepts of plane geometry.

DATA: Instruction in Data should focus on these critical areas:

- Using numbers in context (data) with the mathematical processes can result in better predictions and informed decisions.
- Using tools to apply statistical methods to describe patterns and trends.
- Understanding randomness, variability, and causality through data collection, data analysis, and interpretation of results.
- Describing data using probability and sampling distributions to judge whether a result is unsurprising or rare.

Mathematical Processes

To develop essential mathematical habits of mind, mathematically proficient students:

PROBLEM SOLVING	REASONING	REPRESENTATIONS	CONNECTIONS	COMMUNICATION
Make sense of problems and persevere in solving them.	Reason quantitatively and abstractly and consider the reasoning of others.	Create and use representations to organize, record, and communicate mathematical ideas.	Analyze mathematical relationships to connect mathematical ideas.	Explain and justify mathematical ideas using precise mathematical language in written or oral communication.



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

HS.N.1 Estimation and Technology: Students will use estimation strategies and technology to reason, to solve problems, and to make connections within mathematics and across disciplines.

HS.N.1.a Select, apply, and explain the method of computation when problem solving using real numbers (e.g., models, mental computation, paper-pencil, technology).

HS.N.1.b Determine if the context of a problem calls for an approximation or an exact value.

HS.N.1.c Determine the rounding convention to be used based on the context of a problem.

HS.N.1.d Estimate a value using the concept of betweenness by bounding above and below (e.g., since log(10) = 1 and log(1,000) = 3 we know log(500) is between 1 and 3).

HS. N.1.e Determine the tolerance interval and percent of error in measurement.

HS.N.1.f Convert equivalent rates (e.g., miles per hour to feet per second).

HS.N.1.g Determine whether extremely large or extremely small quantities can be reasonably represented by a calculator or graphing utility.

HS.N.1.h Use scientific notation to appropriately represent large and small quantities.

HS.N.2 Sets and Operations: Students will use number sets and operations to reason and to solve problems.

HS.N.2.a Extend the properties of exponents to rational numbers.

HS.N.2.b Use properties of rational and irrational numbers.

HS.N.2.c Demonstrate, represent, and show relationships among the subsets of real numbers and the complex number system.

HS.N.2.d Compute with subsets of the complex number system including imaginary, rational, irrational, integers, whole, and natural numbers.

HS.N.3 Interpretation and Sense Making: Students will reason abstractly and quantitatively using units to solve problems and interpret results in context.

HS.N.3.a Understand roundoff error and why roundoff error accumulates when rounding occurs prior to the last step in a computation.

HS.N.3.b Use estimation methods to check the reasonableness of real number computations and decide if the problem calls for an approximation (including appropriate rounding) or an exact number.

HS.N.3.c Use units to assess the validity of an answer in the context of a problem.

HS.N.3.d Communicate the meaning of an answer in the context of a problem.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

HS.A.1 Algebraic Relationships: Students will demonstrate and represent relationships with functions.

HS.A.1.a Demonstrate that functions are a well mapped subdomain of relations.

HS.A.1.b Analyze a relation to determine if it is a function given mapping diagrams, function notation (e.g., $f(x)=x^2$), a table, or a graph.

HS.A.1.c Classify a function given its mapping diagram, function notation, table, or graph as a linear, quadratic, absolute value, exponential, or other function.

HS.A.1.d Analyze a function's domain and range to determine if it is one-to-one and has an inverse function both algebraically and graphically.

HS.A.1.e Define, interpret, and analyze linear, quadratic, absolute value, and exponential functions using the points of interest of the functions and graphing technology.

HS.A.1.f Identify, analyze, and apply transformations of existing functions (including translation and dilation).

HS.A.1.g Interpret logarithmic equations as exponential equations.

HS.A.1.h Describe arithmetic sequences using tables of values and functions in explicit and recursive forms.

HS.A.1.i Describe geometric sequences using tables of values and functions in explicit and recursive forms.

HS.A.2 Algebraic Processes: Students will apply the operational properties when evaluating rational expressions and solving linear and quadratic equations, and inequalities.

HS.A.2.a Analyze and explain the properties used in solving equations, inequalities, systems of linear equations, systems of linear inequalities, and literal equations.

HS.A.2.b Generate expressions in equivalent forms by using algebraic properties to make different characteristics or features visible.

HS.A.2.c Analyze equations and inequalities to determine and apply efficient methods to solve and use appropriate technology as needed.

HS.A.2.d Calculate the slope (rate of change) of a line given coordinate points, a graph, or a table of values.

HS.A.2.e Write and graph equations of functions (linear, absolute value, quadratic, and exponential) using the points of interest of the function.

HS.A.2.f Given a line, write the equation of a line that is parallel or perpendicular to it.

HS.A.2.g Perform and explain operations such as addition, subtraction, multiplication, division, and factoring on polynomials.

HS.A.2.h Explain the connection between the factors of a polynomial and the zeros of a polynomial.

HS.A.2.i Combine functions by composition and perform operations on functions.

HS.A.3 Applications: Students will solve authentic problems using nonlinear functions.

HS.A.3.a Analyze and model authentic situations using various representations and appropriate technology.

HS.A.3.b Identify, interpret, relate, and graph the factors, x-intercepts, roots, and zeros of polynomial functions using algebraic and graphing methods.

HS.A.3.c Identify and predict appropriate solutions to equations given context and domain/range (e.g., extraneous solutions, imaginary solutions, no solution, infinitely many solutions).

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

TOOLS: Students will sketch, draw, and construct appropriate representations using a variety of tools and methods which may include ruler/straight edge, protractor, compass, reflective devices, paper folding, or dynamic geometric software.

HS.G.1 Attributes: Students will identify and describe geometric attributes, apply properties and theorems, and create two- dimensional shapes.

HS.G.1.a Demonstrate that two figures are similar or congruent by using a sequence of rigid motions and dilations that map a figure onto the other in problems both with and without coordinates.

HS.G.1.b Describe symmetries of a figure in terms of rigid motions that map a figure onto itself and make inferences about symmetric figures (e.g., unknown side lengths or angle measures) in problems both with and without coordinates.

HS.G.1.c Explain how the criteria for triangle congruence and similarity (ASA, SAS, AAS, and SSS congruence; AA similarity criterion) follow from the definition of congruence and similarity in terms of corresponding parts.

HS.G.1.d Identify and apply right triangle relationships including converse of the Pythagorean Theorem.

HS.G.1.e Apply side and angle relationships of special right triangles (30 degree-60 degree-90 degree and 45 degree-45 degree-90 degree) to solve geometric problems.

HS.G.1.f Identify and apply right triangle relationships including sine, cosine, and tangent.

HS.G.1.g Apply interior and exterior angle formulas for n-gons and apply to authentic situations.

HS.G.1.h Compare/contrast the properties of quadrilaterals: parallelograms, rectangles, rhombi, squares, kites, trapezoids, and isosceles trapezoids.

HS.G1.i Use slope and the distance formula to determine the type of quadrilateral.

HS.G.1.j Identify, describe, apply, and reason through properties of central angles, inscribed angles, angles formed by intersecting chords, secants, and/or tangents to find the measures of angles related to the circle, arc lengths, and areas of sectors.

HS.G.2 Attributes: Students will identify and describe geometric attributes, apply properties and theorems and create three-dimensional shapes.

HS.G.2.a Convert between various units of volume (e.g., cubic feet to cubic yards).

HS.G.2.b Apply the effect of a scale factor to determine the volume of similar three-dimensional shapes and solids.

HS.G.2.c Determine surface area and volume of pyramids, as well as solids that are composites of pyramids, prisms, spheres, cylinders, and cones, using formulas and appropriate units.

HS.G.3 Coordinate Geometry and Transformations: Students will demonstrate and represent location, orientation, and relationships on the coordinate plane.

HS.G.3.a Derive the midpoint formula using the concept of average and apply the midpoint formula to find coordinates.

HS.G.3.b Find the images and preimages of transformations of a point, shape, or a relation on the coordinate plane. Transformations include the following and their compositions: reflections across horizontal and vertical lines and the lines y=x and y=-x, rotations about the origin of 90 degrees, dilations about the origin by any positive scale factor, and any translation.

HS.G.3.c Find the equation of a circle given the radius and the center.

HS.G.4 Logic and Proof: Students will use geometric definitions and theorems to reason abstractly and quantitatively.

HS.G.4.a Know and use definitions to make deductions in mathematical argumentation (e.g., syllogism, detachment).

HS.G.4.b Evaluate the validity of conditional statements, including biconditional statements (e.g., conditional, converse, contrapositive, inverse).

HS.G.4.c Evaluate the validity of an argument communicated in different ways (e.g., a flow format, two- column, paragraph format).

HS.G.4.d Use coordinate geometry to prove triangles are right, acute, obtuse, isosceles, equilateral, or scalene.

HS.G.4.e Prove and apply geometric properties and theorems regarding triangles, congruence, and similarity using deductive reasoning.

HS.G.4.f Prove and apply geometric theorems about quadrilaterals using deductive reasoning.

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

HS.D.1 Data Collection and Statistical Methods: Students will formulate statistical investigative questions, collect data, and organize data.

HS.D.1.a Formulate multi-variable statistical investigative questions and determine how data can be collected and analyzed to provide an answer.

HS.D.1.b Apply an appropriate data collection plan when collecting primary data for the statistical investigative question of interest.

HS.D.1.c Use appropriate technology, including spreadsheet-based logic, to organize data for analysis.

HS.D.1.d Distinguish between surveys, observational studies, and experiments.

HS.D.1.e Understand what constitutes good practice in designing a sample survey, an experiment, and an observational study.

HS.D.1.f Understand issues of bias and confounding variables in a study and their implications for interpretation.

HS.D.2 Analyze Data and Interpret Results: Students will represent and analyze the data and interpret the results.

HS.D.2.a Identify appropriate ways to summarize and then represent the distribution of univariate data and bivariate data through the construction of histograms, dot plots, stem plots, box plots, cumulative relative frequency graphs, time plots, circle graphs, stacked bar graphs, and mosaic bar graphs by hand or with technology.

HS.D.2.b Describe the shape, identify any outliers, and determine the spread of a data set.

HS.D.2.c Select and determine the appropriate measure of center based on the shape of a distribution and/or the presence of outliers.

HS.D.2.d Recognize when a data set can be reasonably said to be normally distributed and draw conclusions about the data from the associated normal distribution.

HS.D.2.e Summarize categorical data for two categories in two-way frequency tables. Interpret relative frequencies in the context of the data and recognize possible associations and trends in the data.

HS.D.2.f Represent data on two quantitative variables on a scatter plot and describe how the variables are related.

HS.D.2.g Use technology to develop regression models for linear and non-linear data to predict unobserved outcomes. Interpret slope and y-intercept in the context of the problem.

HS.D.2.h Measure the strength of association using correlation coefficients for regression curves and interpret their meanings for the model.

HS.D.2.i Use residuals and residual plots to judge the quality of a regression model.

HS.D.2.j Recognize and explain when arguments based on data confuse correlation with causation.

HS.D.2.k Understand what constitutes statistical significance. Interpret statistical significance in the context of a situation and answer investigative questions appropriately.

HS.D.2.l Use probability as a tool for assessing risk and for informed decision making by interpreting P-values.

HS.D.3 Probability: Students will interpret and apply concepts of probability.

HS.D.3.a Describe events as subsets of a sample space using characteristics of the outcomes or as unions, intersections, or complements of other events.

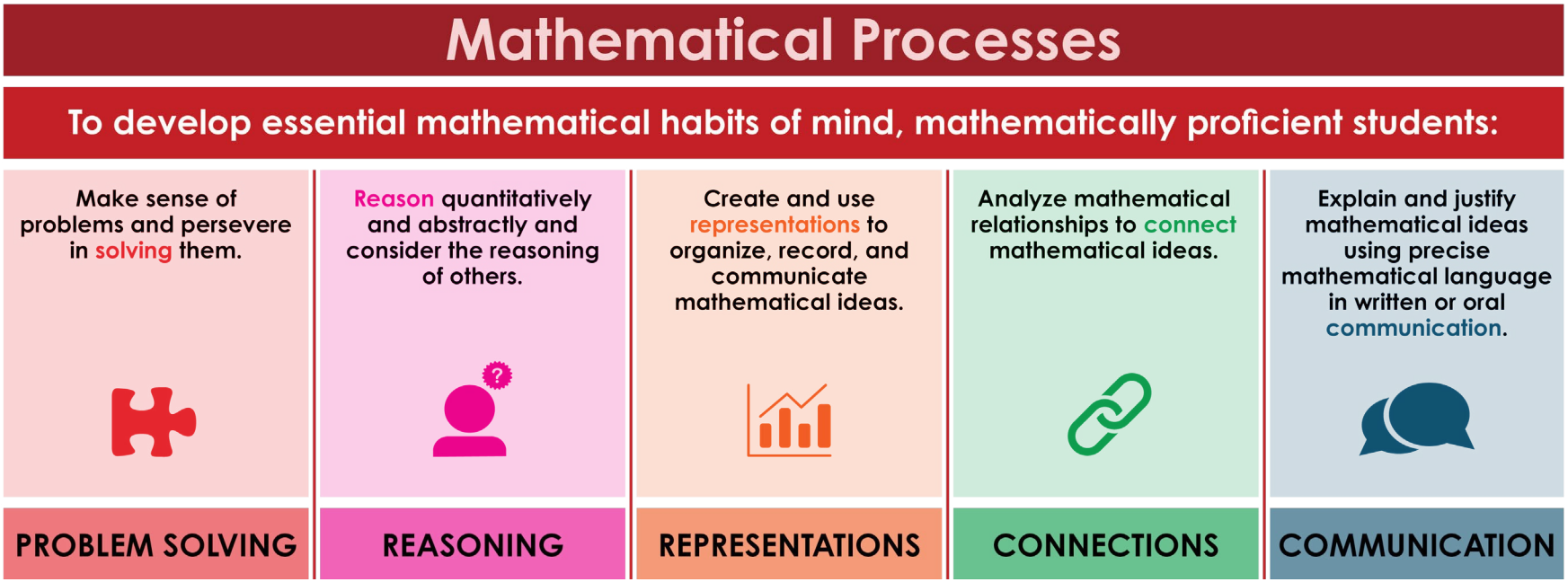
HS.D.3.b Explain independent versus dependent probability of an event.

HS.D.3.c Determine when order in counting matters and use permutations and combinations to compute probabilities of events accordingly.

HS.D.3.d Determine whether or not events are mutually exclusive (disjoint) and calculate their probabilities in either case.

HS.D.3.e Recognize and explain the concepts of conditional probability in everyday language and everyday situations.

High School Advanced Topics Standards



NUMBER: Students will solve problems and reason with number concepts using multiple representations, make connections within math and across disciplines, and communicate their ideas.

AT.N.1 Estimation and Technology: Students will use estimation strategies and technology to reason, to solve problems, and to make connections within mathematics and across disciplines.

AT.N.1.a Use domain and range restrictions to apply an appropriate viewing window while using graphing technology.

AT.N.1.b Compare and contrast radians and degrees as measures of angles and the reason graphing utilities tend to use radians as the default setting.

AT.N.2 Sets and Operations: Students will compare and contrast subsets and perform operations with subsets of the complex number system to reason and to solve problems.

AT.N.2.a Perform arithmetic operations with complex numbers.

AT.N.2.b Represent complex numbers and their operations in the complex plane.

AT.N.2.c Use complex numbers in polynomial identities and equations.

AT.N.2.d Represent quantities using bases other than decimal such as binary (base 2) or hexadecimal (base 16) and convert numbers to and from base 10.

AT.N.2.e Explain modular arithmetic and its role in computer programming.

AT.N.2.f Represent and model vector quantities.

AT.N.2.g Perform operations on vectors.

AT.N.2.h Perform operations on matrices and use matrices in applications.

AT.N.3 Interpretation and Sense Making: Students will reason abstractly and quantitatively using units to solve problems and interpret results in context.

AT.N.3.a Use vectors to communicate the geometric relationships between complex numbers in the complex plane.

ALGEBRA: Students will solve problems and reason with algebra using multiple representations, make connections within math and across disciplines, and communicate their ideas.

AT.A.1 Algebraic Relationships: Students will demonstrate and represent relationships with functions.

AT.A.1.a Analyze and graph nonlinear functions (trigonometric, rational, higher-order polynomials, logarithmic, and piecewise) and relations (conic sections) using their points of interest and graphing technology.

AT.A.1.b Use the unit circle to define the trigonometric functions on multiples of known angles (positive and negative multiples of 30 and 45 degrees or pi/6 and pi/4).

AT.A.1.c Given a function, list the sequence of algebraic transformations that changes a parent function to the given function.

AT.A.1.d Define the radian unit of measure and its relationship with degrees.

AT.A.2 Algebraic Processes: Students will apply the operational properties when evaluating nonlinear expressions and solving nonlinear equations and inequalities.

AT.A.2.a Explain symmetry of functions and determine whether a function is odd, even, or neither.

AT.A.2.b Represent, interpret, and analyze inverses of functions algebraically and graphically using domain restrictions when necessary.

AT.A.2.c Write equations of nonlinear functions (trigonometric, rational, higher-order polynomials, logarithmic and piecewise) using points of interest of the function.

AT.A.2.d Convert between radian and degree measures of an angle.

AT.A.2.e Use limits to describe the behavior of a function near its asymptotes and removable discontinuities.

AT.A.3 Applications: Students will solve authentic problems using nonlinear functions and relations.

AT.A.3.a Analyze and model authentic situations using various non-linear representations and relations with appropriate technology.

AT.A.3.b Analyze and model authentic application situations using various non-linear representations and relations with appropriate technology.

GEOMETRY: Students will solve problems and reason with geometry using multiple representations, make connections within math and across disciplines, and communicate their ideas.

TOOLS: Students will sketch, draw, and construct appropriate representations using a variety of tools and methods which may include ruler/straight edge, protractor, compass, reflective devices, paper folding, or dynamic geometric software.

AT.G.1 Attributes: Students will identify and describe geometric attributes, apply properties and theorems, and create two- dimensional shapes.

AT.G.1.a Apply the Law of Sines and the Law of Cosines to find unknown measures in triangles.

AT.G.2 Attributes: Students will identify and describe geometric attributes, apply properties and theorems, and create three-dimensional shapes.

AT.G.2.a Determine the three-dimensional object created by rotating or revolving a two-dimensional object about an axis.

AT.G.2.b Determine the shape of a two-dimensional cross-section of a three-dimensional object.

AT.G.2.c Use Cavalieri's Principle to determine volume of three-dimensional figures.

AT.G.3 Coordinate Geometry and Transformations: Students will demonstrate and represent location, orientation, and relationships on the coordinate plane.

AT.G.3.a Identify symmetry properties of a function (e.g., axis of symmetry of a parabola) and know the connection between its symmetry properties and specific transformations.

AT.G.3.b Recognize that translations can be described in terms of vectors.

AT.G.3.c Find the images and preimages of transformations of a point, shape, or relation on the coordinate plane, where transformations include the following compositions: reflections about lines of any rational slope passing through the origins, delations about the origin by any positive scale factor, and translations.

AT.G.3.d Explain the focus-directrix construction of a parabola and derive the equation of a parabola from focus and directrix for a parabola whose axis of symmetry is a coordinate axis.

AT.G.4 Logic and Proof: Students will use geometric definitions and theorems to reason abstractly and quantitatively.

AT.G.4.a Use known definitions and results in informal argumentation to construct logical arguments.

AT.G.4.b Distinguish between empirical reasoning, examples, and deductive reasoning, as well as informal and formal reasoning.

AT.G.4.c Evaluate the deductive consequences of alternative definitions of known objects (e.g., whether a trapezoid is defined as a quadrilateral with exactly one pair of parallel sides or defined as at least one pair of parallel sides).

DATA: Students will solve problems and reason with data/probability using multiple representations, make connections within math and across disciplines, and communicate their ideas.

AT.D.1 Data Collection and Statistical Methods: Students will formulate statistical investigative questions, collect data, and organize data.

AT.D.1.a Explain what constitutes good practice in designing a sample survey, an experiment, and an observational study.

AT.D.1.b Explain the use of randomization to reduce the influence of confounding or lurking variables.

AT.D.1.c Explain issues of bias and confounding variables in a study and their implications for interpretation.

AT.D.1.d Demonstrate knowledge of the role sampling distributions play in the estimation of an unknown population parameter through the use of appropriate sampling techniques.

AT.D.2 Analyze Data and Interpret Results: Students will represent and analyze the data and interpret the results.

AT.D.2.a Determine when a data set can be reasonably said to be normally distributed and draw conclusions about the data from the associated normal distribution.

AT.D.2.b Use technology to develop regression models for linear and non-linear data to predict unobserved

outcomes. Apply algebraic transformations to non-linear data to generate a linearized data set and employ linear regression techniques to analyze the non-linear data set.

AT.D.3 Probability: Students will interpret and apply concepts of probability.

AT.D.3.a Weigh the possible outcomes of a decision by assigning probabilities to payoff values and finding expected values. Interpret the expected value as the mean of a probability distribution.

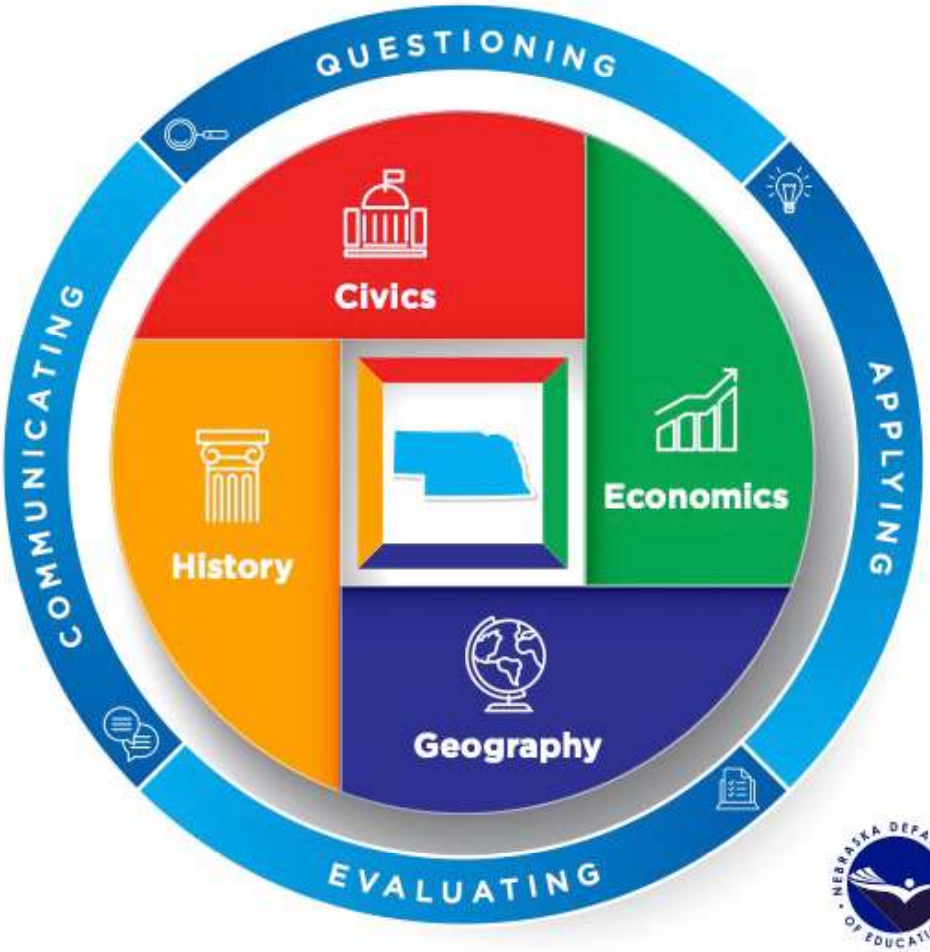
AT.D.3.b Communicate what constitutes statistical significance. Interpret statistical significance in the context of a situation and answer investigative questions appropriately.

AT.D.3.c Use data to compare two groups, describe sample variability, and decide if differences between parameters are significant based on the statistics.

AT.D.3.d Use probability as a tool for assessing risk and for informed decision making by computing and interpreting P-values.

AT.D.3.e Use confidence intervals to estimate an unknown population parameter.

NEBRASKA SOCIAL STUDIES STANDARDS



Approved by the Nebraska State Board of Education on November 8, 2019

Nebraska Social Studies Standards

Table of Contents

Standards Structure 3
Kindergarten Standards 4
Grade 1 Standards 8
Grade 2 Standards 12
Grade 3 Standards 17
Grade 4 Standards 22
Grade 5 Standards 28
Middle School Overview 35
Grade 6 Standards 37
Grade 7 Standards 41
Grade 8 Standards 47
High School Civics Standards 53
High School Economics Standards 55
High School Geography Standards 59
High School History Standards 62

Content Area Standards

The Nebraska Social Studies Standards describe the knowledge and skills that students should learn, but they do not prescribe particular curriculum, lessons, teaching techniques, or activities. These standards create a framework for teaching and learning, and they articulate a trajectory for knowledge acquisition across all grade levels. This ensures that student learning builds on prior knowledge and becomes more in-depth over time. Standards describe what students are expected to know and be able to do, while the local curriculum and instructional materials are used to help students master the standards. Decisions about curriculum and instructional materials are made locally by individual school districts and classroom teachers. The Nebraska Department of Education does not mandate the curriculum or instructional materials used within a local school.

Organization and Structure of Nebraska's Social Studies Standards

The overall structure of Nebraska's Social Studies Standards reflects the two-tier structure common across all Nebraska content area standards. The two levels include standards and indicators. At the broadest level, standards include broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of student learning. The standards, across all grade levels, reflect long-term goals for learning. Indicators further describe what students must know and be able to do to meet the standard and provide guidance related to classroom instruction. Additionally, the indicators provide guidance related to the assessment of student learning. In addition to standards and indicators, the Nebraska Social Studies standards provide examples. The "For example…" statements provide guidance relative to topics that may be included in the locally determined curriculum. These suggestions may be used to meet the learning expectations of the standards and indicators.

For grades K-8, the standards and indicators are written at grade level. The K-8 standards and indicators are organized within four ***disciplines***: Civics, Economics, Geography, and History. Within those disciplines, standards and indicators are grouped by ***big ideas***. Big ideas are concepts, themes, or issues that give meaning and connection to facts and skills (Wiggins and McTighe, 2005, p. 5). The high school standards and indicators are written within one grade band (HS = 9-12), and they are also organized by discipline and big ideas. Prior to each grade level and the high school grade band, a summary statement and theme are included. This provides a high-level overview of what students are expected to learn at that grade level.

In addition to a common structure for content area standards, a consistent numbering system is used for content area standards. The Nebraska Social Studies Standards numbering system is as follows:



Kindergarten

Grade Level Summary and Theme

Myself and Others: In kindergarten, students begin their investigation of the world using perspectives, concepts, and skills from social studies. The context for social studies learning at this grade level is the student's interaction with classroom and school. The classroom serves as a microcosm of society in which decisions are made with respect to rights, rules, and responsibilities. Students begin to learn the basic concepts of fairness and respect for the rights and opinions of others.

Civics

Forms and Functions of Government

SS K.1.1 Communicate the purpose of rules and the roles within learning and living environments.

SS K.1.1.a Describe a rule and analyze its purpose.

For example: safety, to make learning possible, to protect freedoms, to ensure consistency for all

SS K.1.1.b Identify roles in a family structure and explain their importance.

For example: head of household, primary caregiver, parent/guardian, elders, siblings

Civic Participation

SS K.1.2 Demonstrate positive and productive citizenship skills.

SS K.1.2.a Model citizenship skills.

For example: respect, courtesy, honesty, voting, cultural virtues

SS K.1.2.b Communicate patriotic symbols, songs, actions, and cultural celebrations.

For example: U.S. Flag, Pledge of Allegiance, "Star-Spangled Banner," and "America the Beautiful," cultural songs

SS K.1.2.c Communicate historical background and significance of national holidays.

For example: George Washington's Birthday, Abraham Lincoln's Birthday, Dr. Martin Luther King, Jr.'s Birthday, Native American Heritage Day, Constitution Day, Memorial Day, Veterans Day, Thanksgiving Day

Economics

Economic Decision Making

SS K.2.1 Differentiate between wants and needs in decision-making.

SS K.2.1.a Classify wants and needs and explain subsequent choices.

Financial Literacy

SS K.2.2 Recognize money is used to purchase goods and services to satisfy economic wants and needs.

SS K.2.2.a Explain the purposes of money.

Exchange and Markets

SS K.2.3 Not addressed at this level

National Economy

SS K.2.4 Not addressed at this level

Global Economy

SS K.2.5 Not addressed at this level

Geography

Location and Place

SS K.3.1 Explore where (spatial) and why people, places and environments are organized in the world.

SS K.3.1.a Communicate personal directions to describe relative locations of people and objects.

For example: next to, over there, close to

SS K.3.1.b Identify locations in the school and around the classroom.

For example: left/right, up/down, front/back, over/under, near/far- supplies, trash can, pencil sharpener, other students, library, gym, office, restroom, cafeteria

SS K.3.1.c Identify geographic tools as representations of local and distant places.

For example: maps, globes, photographs, GPS (Global Positioning System)

SS K.3.1.d Identify the difference between land and water on a globe.

Regions

SS K.3.2 Explore places and regions.

SS K.3.2.a Identify physical characteristics of place.

For example: landforms, bodies of water, weather

SS K.3.2.b Identify human characteristics of place.

For example: cities, buildings, farms, roads, highways

Human-Environment Interaction

SS K.3.3 Explore the relationship between humans and their physical environment.

SS K.3.3.a Identify types of weather and the impact of weather on everyday life.

For example: rainy, snowy, sunny, cloudy, foggy - choice of clothing, rainouts

SS K.3.3.b Identify the four seasons.

SS K.3.3.c Inquire about how people prepare for and respond to severe weather.

For example: weather forecasting, tornado drills, winter clothing

Movement

SS K.3.4 Recognize that people belong to different groups and live in different settings.

SS K.3.4.a Identify students as members of various groups.

For example: scouts, sports, classrooms, families

SS K.3.4.b Identify places in the community where people may live.

For example: farms, houses, apartments

Geospatial Skills and Geo-literacy

SS K.3.5 Use geographic skills to make connections to students' lives.

SS K.3.5.a Apply geographic knowledge and techniques to navigate the classroom.

For example: Locate people or places in relation to each other, or make a fire evacuation plan for your home.

History

Change, Continuity, and Context

SS K.4.1 Recognize patterns of continuity and change over time in themselves and others.

SS K.4.1.a Identify concepts of time and chronology.

For example: yesterday, today, tomorrow

SS K.4.1.b Identify the sequence of personal events and their impact.

For example: daily schedule, timelines

Multiple Perspectives

SS K.4.2 Recognize different perspectives of events.

SS K.4.2.a Compare perspectives of self and others.
For example: events that occurred on the playground

Historical Analysis and Interpretation

SS K.4.3 Identify historical people, events, and symbols.

SS K.4.3.a Recognize historical people from a variety of cultures.
For example: George Washington, Harriet Tubman, Crazy Horse, Martin Luther King, Jr.

SS K.4.3.b Identify symbols of the United States.
For example: American flag, bald eagle, Washington Monument, Statue of Liberty

SS K.4.3.c Differentiate between stories from the present and the past.
For example: literary and informational, history vs. historical fiction, past and present including different cultural perspectives

Historical Inquiry and Research

SS K.4.4 Develop historical inquiry and research skills.

SS K.4.4.a Construct questions about personal history.
For example: "How did my family come to live in this place?" "Where were other members of my family born?"

SS K.4.4.b Identify and cite appropriate sources when conducting historical research.
For example: "My family member gave me this picture."

SS K.4.4.c Gather and communicate historical information.
For example: pictures, posters, and oral narratives

Grade 1

Grade Level Summary and Theme

Families - Living, Learning, and Working Together: In first grade, students develop their understanding of basic concepts and ideas from civics, economics, geography, and history. The context for social studies learning in first grade is the family and the ways they choose to live and work together. To develop students' understanding of the basic social studies concepts, students are asked to think about families nearby and those far away.

Civics

Forms and Functions of Government

SS 1.1.1 Analyze the relationship between roles and rules within learning and living environments

SS 1.1.1.a Explain how rules reduce and help resolve conflicts between people with different perspectives.

For example: classroom rules, playground rules, school rules, family rules

SS 1.1.1.b Identify leaders within a school community and explain the importance of their roles.

For example: teachers, administrators, nurse, playground supervisor, support staff

Civic Participation

SS 1.1.2 Demonstrate positive and productive citizenship skills.

SS 1.1.2.a Model and communicate citizenship skills.

For example: responsibility, voting or decision-making within a family structure, obeying civic laws, obeying family rules, cultural virtues

SS 1.1.2.b Identify patriotic symbols, songs, actions, holidays, and cultural celebrations.

For example: U.S. Flag, bald eagle, Pledge of Allegiance, national holidays, cultural songs

SS 1.1.2.c Communicate historical background and significance of national holidays.

For example: George Washington's Birthday, Abraham Lincoln's Birthday, Dr. Martin Luther King, Jr.'s Birthday, Native American Heritage Day, Constitution Day, Memorial Day, Veterans Day, and Thanksgiving Day, and the roles that different cultures played in our community/nation

SS 1.1.2.d Compare and contrast historical and current government figures that exemplify civic engagement.

For example: governors, civic leaders of marginalized groups such as Susan B. Anthony, Martin Luther King, Jr., Rosa Parks, Chief Standing Bear

Economics

Economic Decision Making

SS 1.2.1 Explain how scarcity necessitates making choices.

SS 1.2.1.a Identify gains and losses when choices are made.
For example: tradeoff, opportunity cost

Financial Literacy

SS 1.2.2 Compare spending and saving opportunities.

SS 1.2.2.a Give examples of situations where students and families could choose to save for future purchases.

Exchange and Markets

SS 1.2.3 Explain that resources are used to produce goods and services.

SS 1.2.3.a Categorize human and natural resources used to create goods and services.
For example: iron ore (a natural resource) is made into steel, which the factory worker (a human resource) uses to build a bike (a good)

National Economy

SS 1.2.4 Not addressed at this level

Global Economy

SS 1.2.5 Not addressed at this level

Geography

Location and Place

SS 1.3.1 Explore where (spatial) and why people, places, and environments are organized in the world.

SS 1.3.1.a Identify the four cardinal directions.

SS 1.3.1.b Identify and describe locations in schools and homes and explain reasons for the locations.
For example: Why is the cafeteria next to the kitchen? Why is the office by the front door? Why is the nurse's office often located near the main office? Why is the water fountain near the restroom?

SS 1.3.1.c Create and use maps.
For example: maps of the home and school

SS 1.3.1.d Distinguish between continents and oceans.

Regions

SS 1.3.2 Explore places and regions.

SS 1.3.2.a Identify and differentiate between physical features on maps, globes, graphics, and in the physical world.
For example: mountains, plains, islands, hills, oceans, rivers, lakes

SS 1.3.2.b Identify and differentiate between human features.
For example: cities, farms, buildings, bridges, streets

SS 1.3.2.c Explain how places change over time.
For example: new building, a bigger road

Human-Environment Interaction

SS 1.3.3 Explore the relationship between humans and their physical environment.

SS 1.3.3.a Interpret the impact of environmental hazards and severe weather on everyday life.
For example: tornado drills, snow days, floods

SS 1.3.3.b Identify Earth's natural resources.
For example: minerals, air, land, water, soil

SS 1.3.3.c Describe how people adapt to their physical environment.
For example: housing, reservations, land use, recreational activities, soil conservation, build dams

Movement

SS 1.3.4 Describe the characteristics of culture.

SS 1.3.4.a Identify cultural traits.
For example: languages, religions, foods, music, sports, clothing

SS 1.3.4.b Describe the characteristics of individual culture.
For example: foods, languages, celebrations

Geospatial Skills and Geo-literacy

SS 1.3.5 Use geographic skills to make connections to students' lives.

SS 1.3.5.a Apply geographic knowledge and techniques to navigate the school.
For example: Make a map of the school or playground.

History

Change, Continuity, and Context

SS 1.4.1 Recognize patterns of continuity and change over time in families.

SS 1.4.1.a List and describe life events over time.
For example: weekly, monthly, yearly, seasonal celebrations from different cultural perspectives

SS 1.4.1.b Compare and contrast family life from earlier times and today.
For example: "How was life different for earlier generations?"

Multiple Perspectives

SS 1.4.2 Identify multiple perspectives of diverse family traditions.

SS 1.4.2.a Compare and contrast family traditions across cultures.
For example: holidays, celebrations, milestones

Historical Analysis and Interpretation

SS 1.4.3 Describe historical people, events, and symbols.

SS 1.4.3.a Identify the contributions of historical people.
For example: Abraham Lincoln, Frederick Douglass, Martin Luther King, Jr., Standing Bear, Willa Cather, Susan LaFlesche

SS 1.4.3.b Identify symbols of the United States.
For example: national anthem, other patriotic songs

SS 1.4.3.c Describe how oral traditions, books, letters, and other artifacts help us to understand the past.
For example: show and tell of an artifact from the past, visiting a museum

Historical Inquiry and Research

SS 1.4.4 Develop historical inquiry and research skills.

SS 1.4.4.a Construct and answer questions about family history.
For example: "Where was I born?" "What do my family members remember from when I was a small child?"

SS 1.4.4.b Identify and cite appropriate texts, letters, and other artifacts for research.
For example: the title and author of the text from which information was taken

SS 1.4.4.c Gather and communicate historical information about families.
For example: picture, posters, and oral narratives

Grade 2

Grade Level Summary and Theme

Neighborhood: In second grade, students apply their emerging understanding of civics, economics, geography, and history to their communities and others around the world. Students learn about how their community works as well as the variety of ways that communities organize themselves. To develop conceptual understanding, students examine the geographic and economic aspects of life in their own neighborhoods and compare them to those of people long ago.

Civics

Forms and Functions of Government

SS 2.1.1 Investigate and defend the responsibilities and rights of citizens in their communities.

SS 2.1.1.a Contribute to developing rules by considering multiple points of view.

For example: classroom meetings, voting, consensus building activities

SS 2.1.1.b Demonstrate conflict management strategies as individuals, groups, and communities.

For example: respectful conversations, active participation, restating others' views, checking for understanding

Civic Participation

SS 2.1.2 Contribute to making decisions using democratic traditions based on established rules.

SS 2.1.2.a Identify and apply civic responsibilities that are important to individuals and their communities.

For example: voting, obeying laws, justice, equality, decision-making process in different cultures

SS 2.1.2.b Explain how patriotic symbols, songs, actions, celebrations, and holidays reflect democratic traditions.

For example: what the colors of the U.S. Flag represent, symbolism of the bald eagle, reasons for reciting the Pledge of Allegiance, why national holidays were established and celebrated, the origination of tribal songs, how cultural songs and symbols unify communities

SS 2.1.2.c Communicate historical background and significance of national holidays.

For example: George Washington's Birthday, Abraham Lincoln's Birthday, Presidents Day, Dr. Martin Luther King, Jr. Day, Native American Heritage Day, Constitution Day, Memorial Day, Veterans Day, and Thanksgiving Day

SS 2.1.2.d Investigate ways to be actively engaged to improve family, school, and community.

For example: volunteerism, participation in school clubs and organizations, classroom jobs, following rules, bully prevention

SS 2.1.2.e Model and communicate characteristics of good citizenship.

For example: establishing beliefs and justice, truth, equality, personal responsibilities for the common good, respect for diversity of opinions, cultural virtues

Economics

Economic Decision Making

SS 2.2.1 Evaluate choices about how to use scarce resources that involve prioritizing wants and needs.

SS 2.2.1.a. Justify a decision made by providing evidence of possible gains and losses.

For example: tradeoff, opportunity cost, delayed gratification, savings

Financial Literacy

SS 2.2.2 Demonstrate knowledge of currency, its denominations, and use.

SS 2.2.2.a Make transactions using currency emphasizing its use as a medium of exchange.

For example: via school store, buying pencils, purchases via debit card or Apple pay as a way to make transactions (medium of exchange)

Exchange and Markets

SS 2.2.3 Describe how producers deliver products/services, earn an income, and satisfy economic needs and wants.

SS 2.2.3.a. Explain the role of goods and services and supply and demand in a community.

For example: meet wants and needs

SS 2.2.3.b. Describe how people in their communities earn income/wages through work.

For example: babysitter, teacher, firefighter, grocery store clerk, librarian, banker, lawyer, rancher, farmer, laborer

National Economy

SS 2.2.4 Identify the goods and services governments provide.

SS 2.2.4.a Identify goods and services that local governments provide.

For example: water, fire department, police, educational programs

SS 2.2.4.b Explain how the local government uses taxes to pay for goods and services it provides.

For example: roads, fire and law enforcement, libraries, schools

Global Economy

SS 2.2.5 Not addressed at this level

Geography

Location and Place

SS 2.3.1 Explore where (spatial) and why people, places, and environments are organized in the world.

SS 2.3.1.a Compare and contrast maps and globes.
For example: The shape of a globe makes it look more realistic. You can't see all of the continents and oceans on the globe like you can on a map unless you turn it. Maps can be transported more easily. Globes might have texture for landforms that maps do not have.

SS 2.3.1.b Identify and describe locations in neighborhoods.
For example: home, the park, friend's house, fire station, grocery store

SS 2.3.1.c Identify and apply map elements.
For example: title, symbols, legend, and cardinal directions

SS 2.3.1.d Locate communities, Nebraska, and the United States on maps and globes.

SS 2.3.1.e Explain why things are located where they are in neighborhoods.
For example: Why are stores on a main street?

Regions

SS 2.3.2 Compare places and regions.

SS 2.3.2.a Identify and differentiate between physical and human features of neighborhoods and communities.
For example: vegetation, ravines, housing, streets, sewers, road signs

SS 2.3.2.b Describe local places and regions.
For example: prairie, forest, farm land, ranch land, local community

SS 2.3.2.c Explain how places and regions change over time.

Human-Environment Interaction

SS 2.3.3 Describe relationships between humans and the physical environment.

SS 2.3.3.a Identify examples of Earth's physical processes.
For example: wind and water erosion/deposition

SS 2.3.3.b Describe how seasonal weather patterns, natural hazards, and natural resources affect human activities.
For example: seasonal jobs (landscaping, street/grounds maintenance, construction), seasonal foods, drought causing water shortages

SS 2.3.3.c Match resources to their sources.
For example: food from farms, wood from trees, minerals from the ground, fish from bodies of water

SS 2.3.3.d Describe how people adapt to their physical environment.

For example: soil conservation, build levees, grow plants and raise animals

Movement

SS 2.3.4 Describe different groups of people and the different settings where they live.

SS 2.3.4.a Describe cultures of the local community and other communities.

For example: foods, languages, celebrations, religions, music, sports

SS 2.3.4.b Identify examples of cultural markers in the community.

For example: religious or institutional structures, names of streets, types of businesses, buildings

Geospatial Skills and Geo-literacy

SS 2.3.5 Use geographic skills to make connections to students' lives.

SS 2.3.5.a Apply geographic knowledge and techniques to navigate students' homes and neighborhoods.

For example: Use navigation tools to map out shortest route to school; Map the route of a school field trip to multiple destinations.

History

Change, Continuity, and Context

SS 2.4.1 Recognize patterns of continuity and change over time in neighborhoods.

SS 2.4.1.a Describe how a neighborhood has changed over the course of time using maps and other artifacts.

For example: pictures from school library/media center

SS 2.4.1.b Compare and contrast how different neighborhoods have changed over time.

For example: photographs of school building, materials from local historical society

Multiple Perspectives

SS 2.4.2 Compare multiple perspectives of events within neighborhoods.

SS 2.4.2.a Compare and contrast perspectives from multiple sources regarding the same event.

For example: Compare and contrast different holiday displays in your neighborhood.

Historical Analysis and Interpretation

SS 2.4.3 Determine past and current events, issues, and people relevant to a neighborhood.

SS 2.4.3.a Describe historical people, events, ideas, and symbols (including various cultures and ethnic groups) that impacted a neighborhood.

For example: library, police station, schools, local monuments, city hall, and tribal headquarters

Historical Inquiry and Research

SS 2.4.4 Develop historical inquiry and research skills.

SS 2.4.4.a Construct and answer questions about neighborhood history.

For example: What parks or community buildings are there? When were they built?

SS 2.4.4.b Identify, obtain, and cite appropriate primary and secondary sources for research.

For example: identifying titles and authors of texts where students located information

SS 2.4.4.c Gather and present historical information about a neighborhood.

For example: Ask questions of a guest speaker in the classroom.

Grade 3

Grade Level Summary and Theme

Communities Near and Far: In third grade, students begin to explore more complex concepts and ideas from civics, economics, geography, and history as they study the varied backgrounds of people living in Nebraska and how they relate to other regions of the United States. Emphasis is on cultures in the United States, including the study of Native Americans and other indigenous people (such as Pacific Islanders, Native Hawaiians, Native Alaskans). Students examine these cultures from the past and in the present and the impact they have had in shaping our contemporary society. They begin to look at issues and events from more than one perspective.

Civics

Forms and Functions of Government

SS 3.1.1 Analyze the structure and function of local governments.

SS 3.1.1.a Compare and contrast the structure and function of roles commonly found in local governments.

For example: mayor, city manager, city council, village board, tribal council

SS 3.1.1.b Communicate how and why a community creates laws.

For example: civil discourse, active participation, apply knowledge to address meaningful issues within our society

SS 3.1.1.c Investigate and summarize the roles that leaders and other citizens serve in local communities.

For example: city council, mayor, city manager, village clerk, county commissioner, sheriff's office, school board, neighborhood associations, PTA, tribal council

SS 3.1.1.d Justify the importance of roles that leaders and citizens serve in local government.

For example: creation of local laws, safety, transportation (roads department), economic development, management of public funds, enforcement of laws

Civic Participation

SS 3.1.2 Describe the impact of individual and group decisions at the community level.

SS 3.1.2.a Identify and model rights and responsibilities of citizens at the community level.

For example: voting, public service, service learning projects

SS 3.1.2.b Explain how patriotic symbols, songs, actions, celebrations, and holidays are recognized in local communities.

For example: flag etiquette, bald eagle, Pledge of Allegiance, national holidays

SS 3.1.2.c Communicate the background of national holidays or historical events, their significance, and how they are recognized in the local community.

For example: George Washington's Birthday, Abraham Lincoln's Birthday, Presidents Day, Dr. Martin Luther King, Jr. Day, Native American Heritage Day, Constitution Day, Memorial Day, Veterans Day, Thanksgiving Day, Patriots' Day (Recognition of 9/11)

SS 3.1.2.d Identify and engage in opportunities to serve the local community.

For example: volunteerism, service learning, participation in community clubs and organizations

SS 3.1.2.e Engage in discourse that demonstrates respect and consideration of multiple points of view.

For example: class meetings, observe a city council meeting, school board meeting, class debate

SS 3.1.2.f Describe the decisions of local leaders and how they affect public policy.

For example: recycling/trash hauling plan, city snow removal, disaster relief

Economics

Economic Decision Making

SS 3.2.1 Explain that people choose and decide what services they ask their local and state government to provide and pay for.

SS 3.2.1.a Identify goods and services funded through state or local taxes.

For example: snow removal, waste management, law enforcement

Financial Literacy

SS 3.2.2 Evaluate choices and consequences for spending and saving.

SS 3.2.2.a Given a budget, make choices as to what to purchase, what to give up, and what to save.

Exchange and Markets

SS 3.2.3 Explain that markets are places where buyers and sellers exchange goods and services.

SS 3.2.3.a Indicate various markets where buyers and sellers meet.

For example: grocery store, buy things online, mall, fast food places

National Economy

SS 3.2.4 Describe how the local community trades with other communities.

SS 3.2.4.a Identify local goods and services that could be traded with people everywhere.

For example: corn, soybeans, beef, irrigation systems, dry edible beans, art, buffalo hides, fish

Global Economy

SS 3.2.5 Not addressed at this level

Geography

Location and Place

SS 3.3.1 Explore where (spatial) and why people, places, and environments are organized in the world.

SS 3.3.1.a Identify and apply map elements.

For example: title, scale, symbols, legend, and cardinal and intermediate directions

SS 3.3.1.b Use a map to identify location and distribution of physical and human features.

For example: rivers/roads, cities/towns, bodies of water, landforms

SS 3.3.1.c Determine why things are located where they are in the community.

For example: Why are stores located on main streets? Why are schools near homes? What might be a better location for a school?

SS 3.3.1.d Locate specific places on maps and globes.

For example: Missouri River, Platte River, Rocky Mountains, Nebraska, the student's community

SS 3.3.1.e Identify the continents, oceans, and hemispheres.

Regions

SS 3.3.2 Compare the characteristics of places and regions.

SS 3.3.2.a Identify and differentiate between physical and human features of neighborhoods and communities.

For example: vegetation, hills, waterways, housing, streets, business/residential areas

SS 3.3.2.b Compare and contrast local places and regions with other places and regions.

For example: prairie and forest, local community with another community, life on and off a reservation, products from Nebraska and another state, crops grown in Nebraska and another state

SS 3.3.2.c Explain how and why places and regions change over time.

For example: population growth (more housing, schools), demolition/renovation of old/unsafe structures, flood control measures

Human-Environment Interaction

SS 3.3.3 Explain relationships between humans and the physical environment.

SS 3.3.3.a Describe how the environment influences human activities and how humans alter the environment to suit their needs.

For example: climate, water cycle, soil fertility impact agricultural production, usage of land and energy - land formation impacts transportation and communication, agriculture, transportation, industry, use of natural resources, regulations/practices to protect the environment

SS 3.3.3.b Identify ecosystems.

For example: forests, deserts, grasslands

SS 3.3.3.c Explain the importance of Earth's natural resources.

For example: minerals, air, water, land

SS 3.3.3.d Describe how humans develop communities in local settings.

For example: roads, landfills, utilities, land use patterns

Movement

SS 3.3.4 Compare and contrast the characteristics of local cultures.

SS 3.3.4.a Compare and contrast cultural traits within a community.

For example: languages, religions, foods, music, sports

SS 3.3.4.b Describe examples of how and why cultures change in a community.

For example: technology, education, employment, migration

Geospatial Skills and Geo-literacy

SS 3.3.5 Use geographic skills to make connections to issues and events.

SS 3.3.5.a Identify and evaluate how changes in human and physical geography have shaped the community.

For example: placement of schools/hospitals, building of roads, access to water sources, suitable soil for farming

History

Change, Continuity, and Context

SS. 3.4.1 Detect and apply patterns of continuity and change over time in communities (town or city).

SS 3.4.1.a Describe community events over time using maps and other artifacts.

For example: weekly, monthly, yearly, seasonal happenings

SS 3.4.1.b Compare and contrast how different communities have changed over time.

For example: parks and playground equipment, different economic communities, different kinds of schools, compare rural and urban communities

Multiple Perspectives

SS 3.4.2 Describe and explain multiple perspectives of events within a community.

SS 3.4.2.a Describe the role of diverse groups of people, events, and ideas in the development of a community.

For example: local cultural figures, landmarks, celebrations, cultural events

SS 3.4.2.b Compare and contrast conflicting perspectives about a past event in a community.

For example: widening a street, where to construct a park or building

Historical Analysis and Interpretation

SS 3.4.3 Select past and current events and people relevant to the community.

SS 3.4.3.a Determine factual information about community historical events through use of a variety of sources such as artifacts, pictures, and documents.

For example: local cultural figures, landmarks, celebrations, cultural events

SS 3.4.3.b Identify how decisions affected events in a community.

For example: decisions on location, growth, etc.

Historical Inquiry and Research

SS 3.4.4 Develop historical inquiry and research skills.

SS 3.4.4.a Construct and answer questions about multiple community histories from viewpoints of that community.

For example: How does the founding of a town differ for different groups? Why?

SS 3.4.4.b Identify, obtain, and cite appropriate primary and secondary sources for research about the local community.

For example: Local newspapers, town charters, and local treaties

SS 3.4.4.c Gather and communicate historical information about the community.

For example: Interview a community member, find community resources

Grade 4

Grade Level Summary and Theme

Nebraska Studies: In fourth grade, students use their understanding of social studies concepts and skills to explore Nebraska in the past and present. Students learn about the state's unique geography and key eras in early Nebraska history, particularly the treaty-making period. They use this historical perspective to help them make sense of the state's geography, economy, and government today. The cognitive demand of many grade level expectations begins to include analysis and asks students to look at issues and events from multiple perspectives.

Civics

Forms and Functions of Government

SS 4.1.1 Synthesize and justify the structure and function of Nebraska's government.

SS 4.1.1.a Investigate and summarize the historical foundation and events that led to the formation and structure of Nebraska's Constitution and government.

For example: modeled from U.S. government, three branches of government

SS 4.1.1.b Analyze the origin, structure, and function of Nebraska's state government.

For example: Unicameral vs. Bicameral structure, journey from territory status to statehood, state services/responsibilities vs. national or local services/responsibilities, three branches of Nebraska government

SS 4.1.1.c Communicate how a bill becomes a law in the Nebraska unicameral.

For example: introduction of a bill, committee hearings, legislative debate, governor approval/veto, ratification

SS 4.1.1.d Investigate and summarize the roles that leaders and other citizens serve in Nebraska to equitably represent all residents in the state.

For example: legislative districts, cultural advocacy groups

SS 4.1.1.e Justify the importance of roles that leaders and citizens serve in Nebraska government.

For example: governor, state senators, judiciary, tribal leaders, advocacy group participants

Civic Participation

SS 4.1.2 Investigate how different perspectives impact government decisions at the state level.

SS 4.1.2.a Identify and model rights and responsibilities of citizens at the state level.

For example: voting, public service, service learning projects

SS 4.1.2.b Investigate the meaning of state symbols, songs, and holidays.

For example: Nebraska state flag, "Beautiful Nebraska," state and national holidays

SS 4.1.2.c Communicate background of Nebraska state holidays or historical events, their significance, and how they are recognized.

For example: Arbor Day, George Norris Day and Nebraska Statehood Day, Native American Heritage Day

SS 4.1.2.d Identify and engage in opportunities to serve the state.

For example: volunteerism, service learning, participation in state clubs and organizations

SS 4.1.2.e Explain how individuals and groups influence the way a state issue is viewed and resolved.

For example: lobbying, petitions, media, social media

SS 4.1.2.f Analyze the decisions of state leaders and how they impact public policy.

For example: seatbelt law, state testing, speed limits, state parks

Economics

Economic Decision Making

SS 4.2.1 Describe how scarcity requires the consumer and producer to make choices and identify costs associated with them.

SS 4.2.1.a Predict how consumers would react if the price of a good or service changed.

For example: Price of gasoline increases; price of haircuts increases; price of milk/bread/sugar increases - would buy less or start to change behavior toward buying less, i.e., plan a carpool and get hair cut less often. Price of something decreases and buy more of it.

SS 4.2.1.b Predict how producers would react if the profit from selling a good or service changed.

For example: You produce widgets and they have become very popular and the price is rising, what would you do – produce more. In a natural disaster, because of scarcity prices tend to rise for things like water and lumber, if you produced water and/or lumber, the increased price would incentivize you to get more of things where they were needed.

Financial Literacy

SS 4.2.2 Investigate various financial institutions in Nebraska and the reasons for people's spending and saving choices.

SS 4.2.2.a Identify financial institutions in the community and their purposes.

For example: a field trip to a bank/credit union or a representative to discuss how banks ensure your money is safe and how they loan money to help businesses grow and help people buy housing among other things

Exchange and Markets

SS 4.2.3 Investigate how resources are used to make other goods and produce services.

SS 4.2.3.a Give examples of human, natural, capital, and entrepreneurial resources used in making goods and services in Nebraska and the United States.

For example: human resources (labor), tools used in agriculture, laboratories, equipment, and machinery, game/video designers

National Economy

SS 4.2.4 Identify and explain specialization and trade and why different regions produce different goods and services.

SS 4.2.4.a Compare Nebraska with different regions and the goods and services each region produces.

For example: beef, wheat, telemarketing, cotton, coal, beekeeping, tribal traditional art (beading)

SS 4.2.4.b Discuss how technology has affected the specialization of Nebraska's economy and surrounding states.

For example: irrigation, agriculture and farm equipment, online trading, geospatial technology (GIS [Geographic Information Systems] and GPS [Global Positioning System])

Global Economy

SS 4.2.5 Not addressed at this level

Geography

Location and Place

SS 4.3.1 Explore where (spatial) and why people, places, and environments are organized in the state and around the world.

SS 4.3.1.a Use local and state maps and atlases to locate physical and human features in Nebraska.

For example: major cities, bodies of water, landforms, interstate/highways, railroads, state parks, tribal reservations

SS 4.3.1.b Apply map skills to analyze physical/political maps of the state.

For example: Utilize grid systems to find locations, identify the location and purpose of time zones, and identify and locate cities using relative and absolute locations.

SS 4.3.1.c Determine why things are located where they are in Nebraska.

For example: Why are large cattle ranches found in the Sandhills? Why are major airports located near large cities? What determined the route of I-80?

SS 4.3.1.d Differentiate between classifications of bodies of water, cities, and land masses.

For example: lakes, rivers, capital city, county seats, major urban centers, plains, river valleys, Sandhills

Regions

SS 4.3.2 Compare the characteristics of places and regions and their impact on human decisions.

SS 4.3.2.a Identify criteria used to define regions in the state of Nebraska and the United States.

For example: soil, climate, precipitation, population, natural vegetation, land and agricultural usage

SS 4.3.2.b Classify regions and places within the state of Nebraska using physical and human features.

For example: Sandhills, Pine Ridge, Loess Hills, Platte River Valley, rural/urban/suburban, counties and cities

Human-Environment Interaction

SS 4.3.3 Explain how human and natural forces have modified different environments in Nebraska and how humans have adapted.

SS 4.3.3.a Identify physical processes that shape Nebraska's features and patterns.

For example: weathering, erosion, deposition, drought

SS 4.3.3.b Identify examples of ecosystems in Nebraska and describe related environmental issues.

For example: forests, wetlands, grasslands, and rivers, runoff, flooding, erosion, wildfires

SS 4.3.3.c Describe the impact of extreme natural events on the human and physical environment in Nebraska.

For example: tornadoes, floods, dust storms, insect infestations result in changes to agricultural/construction/public safety practices

SS 4.3.3.d Describe how humans have adapted to Nebraska's physical environment and use available natural resources.

For example: progression of home construction materials, agriculture, irrigation, introduction of trees, soil conservation, soil, timber, surface water and ground water

Movement

SS 4.3.4 Compare and contrast the characteristics of culture statewide.

SS 4.3.4.a Compare and contrast patterns of culture within the state of Nebraska.

For example: languages, religions, foods, music, sports, celebrations

SS 4.3.4.b Compare and contrast population characteristics of the state of Nebraska.

For example: density, distribution, growth rates due to available jobs, resources

Geospatial Skills and Geo-literacy

SS 4.3.5 Use geographic skills to make connections to issues and events.

SS 4.3.5.a Identify and evaluate how changes in human and physical geography have shaped Nebraska.

For example: map major tornado paths, blizzards, floods, or droughts; how the construction of the Transcontinental Railroad and Interstate Highway system have impacted the way Nebraskans live, locations and reasons for tribal reservations

SS 4.3.5.b Explain the interrelationships of human or physical geographic characteristics of places in Nebraska.

For example: A community is located on a river floodplain with fertile soil and water for transportation, irrigation, and human consumption.

History

Change, Continuity, and Context

SS 4.4.1 Investigate patterns of continuity and change over time in Nebraska.

SS 4.4.1.a Analyze the chronology of key state and/or regional events and communicate their impact on the past, present, and future.

For example: timelines, before and after statehood

Multiple Perspectives

SS 4.4.2 Analyze and explain multiple perspectives of events in Nebraska, including historically marginalized and underrepresented groups.

SS 4.4.2.a Compare and contrast primary and secondary sources to better understand multiple perspectives of the same event.

For example: The Homestead Act, Oregon Trail diaries, military journal of Ponca Removal, Standing Bear testimony

SS 4.4.2.b Identify and describe how various sources relate their perspectives of Nebraska history.

For example: texts and primary documents, primary documents from differing groups of people

Historical Analysis and Interpretation

SS 4.4.3 Analyze past and current events throughout Nebraska history.

SS 4.4.3.a Analyze key sources in Nebraska history to determine credibility and context.

For example: accounts from settlers and Nebraska tribes, foundational documents in Nebraska

SS 4.4.3.b Identify key events in American history that shaped or were shaped by Nebraskans.

For example: Kansas-Nebraska Act, Homestead Act, Ponca Trail of Tears, Santee Exile and Winnebago Removal, North Platte Canteen, Orphan Train, Native American Boarding Schools, World War I, Will Brown, World War II, Tuskegee Airmen, Great Depression, Cold War, Civil Rights Movement, September 11, 2001

Historical Inquiry and Research

SS 4.4.4 Develop historical inquiry and research skills.

SS 4.4.4.a Construct and answer questions about Nebraska history.

For example: Why did people migrate and/or relocate to Nebraska?

SS 4.4.4.b Identify and cite primary and secondary sources to research the history of Nebraska.

For example: document archives, newspapers, interviews

SS 4.4.4.c Gather, analyze, and communicate historical information about Nebraska.

For example: collect oral histories from community members, research newspaper archives

Grade 5

Grade Level Summary and Theme

U.S. Studies: In fifth grade, students use their understanding of social studies concepts and cause and effect relationships to study Pre-Columbian cultures, the development of the American colonies, and the creation of the United States through the writing of the U.S. Constitution. By applying what they know from civics, economics, and geography, students learn the ideals, principles, and systems that shaped this country's founding. They conclude the fifth grade by applying their understanding of the country's founding and the ideals in the nation's fundamental documents to issues of importance to them today. This learning forms the foundation and understanding of social studies concepts that will provide students with the ability to examine their role in the community, state, nation, and world.

Civics

Forms and Functions of Government

SS 5.1.1 Synthesize and justify the structure and function of the United States government.

SS 5.1.1.a Investigate and summarize contributions that resulted in the historical foundation and formation of the United States constitutional government.

For example: early state constitutions, Declaration of Independence, and the Articles of Confederation, Magna Carta, English Bill of Rights, tribal constitutions

SS 5.1.1.b Identify and explain the structure and functions of the three branches of government.

For example: legislative, executive, judicial

SS 5.1.1.c Analyze how colonial and new states' governments' laws affected majority groups and marginalized groups within their population.

For example: citizens, enslaved persons, Native American tribes, immigrants, women, class systems

SS 5.1.1.d Evaluate how the decisions of the national government affect local and state government and citizens of diverse backgrounds.

For example: three-fifths clause, treaties, voting requirements, slavery

SS 5.1.1.e Justify the principles of the American Republic.

For example: liberty, representative democracy, United States Constitution, Bill of Rights

SS 5.1.1.f Analyze and contrast forms of government.

For example: Tribal, British monarchy, early American colonial governments

Civic Participation

SS 5.1.2 Analyze democratic principles that are the foundation of the United States government systems in daily life.

SS 5.1.2.a Explore and communicate the constitutional rights and civic responsibilities of U.S. citizens.

For example: freedom of speech, voting, staying informed of issues, respecting the rights, opinions, and beliefs of others, joining a civic group

SS 5.1.2.b Communicate origins of national and state holidays including historical background and significance.

For example: George Washington's Birthday, Abraham Lincoln's Birthday, Presidents Day, Dr. Martin Luther King, Jr. Day, Native American Heritage Day, Constitution Day, Memorial Day, Veterans Day, Thanksgiving Day, Citizenship Day, tribal flag songs, Native American Day

SS 5.1.2.c Interpret and communicate the significance of patriotic symbols, songs, and activities.

For example: significance of the flag, Fourth of July, Constitution Day, George Washington's birthday, military songs from the Revolutionary War, tribal songs, the Liberty Bell

SS 5.1.2.d Explore models of group and individual actions that illustrate civic ideas in the founding of the United States.

For example: George Washington, Boston Tea Party, Continental Congress, Federalist Papers, Sons of Liberty, *Common Sense* by Thomas Paine, Mayflower Compact

SS 5.1.2.e Examine how cooperation and conflict among people have contributed to political, economic, and social events and situations in the United States.

For example: communication through civil discourse historically and presently, constitutional compromises, Continental Congress

SS 5.1.2.f Determine how the roles of individuals and groups influenced government.

For example: George Washington, John Adams, Abigail Adams, Thomas Jefferson, Benjamin Franklin, sovereign Native Americans, Patriots, Loyalists, European governments,

Economics

Economic Decision Making

SS 5.2.1 Not addressed at this level

Financial Literacy

SS 5.2.2 Not addressed at this level

Exchange and Markets

SS 5.2.3 Explain how human capital can be improved by education and training and thereby increase standards of living.

SS 5.2.3.a List examples of how additional education/training improves productivity and increases standards of living.

For example: On the job training, education can all lead to higher wages.

SS 5.2.4 Explain how specialization, division of labor, and technology increase productivity and interdependence.

SS 5.2.4.a Describe the historical role of innovation and entrepreneurship in a market economy.

For example: apprentice, journeyman, early inventors and entrepreneurs

National Economy

SS 5.2.5 Summarize characteristics of economic institutions in the United States.

SS 5.2.5.a Describe the importance of financial institutions to households and businesses.

For example: loans to agriculture, business, and individuals in order to provide capital; importance of rule of law to enforce contracts and provide for private property

SS 5.2.5.b Explain the rules and laws that protect and support consumers.

For example: contracts, agreements, and product safety

SS 5.2.5.c Identify goods and services funded through federal taxes.

For example: military and armed forces, parks

Global Economy

SS 5.2.6 Summarize how specialization and trade impact the global market and relationships with other countries.

SS 5.2.6.a Describe how international trade promotes specialization and division of labor and increases the productivity of labor, output, and consumption.

For Example: New England specialized in ship building and fishing, South Carolina grew rice, the Middle Colonies had grain, and the Upper South grew tobacco and got finished goods like books from Great Britain.

SS 5.2.6.b Explain how trade impacts relationships between countries.

For example: fur, tobacco, cotton, lumber, triangle trade, tribal trading with settlers

Geography

Location and Place

SS 5.3.1 Explore where (spatial) and why people, places, and environments are organized in the United States.

SS 5.3.1.a Use maps and atlases to locate major human and physical features in the United States.

For example: states, capitals and major cities, Rocky Mountains, Appalachian Mountains, Great Lakes

SS 5.3.1.b Apply map skills to analyze physical/political maps of the United States.

For example: Identify latitude/longitude and the global grid, and the ocean currents, trade winds.

SS 5.3.1.c Determine why things are located where they are in the United States.

For example: Why were the 13 colonies located on the eastern side of the United States? Why was corn raised in Pennsylvania and Ohio and cotton in Virginia and Georgia?

Regions

SS 5.3.2 Compare the characteristics of places and regions and draw conclusions on their impact on human decisions.

SS 5.3.2.a Identify criteria used to define regions within the United States.

For example: location, climate, industry, landforms, bodies of water

SS 5.3.2.b Identify and classify regions and places within the United States using physical and human features.

For example: Tidewater, New England, Hudson Valley, congressional districts

Human-Environment Interaction

SS 5.3.3 Explain how human and natural forces have modified different environments in the United States and how humans have adapted.

SS 5.3.3.a Identify examples of ecosystems and analyze issues related to the natural setting in the United States.

For example: forests, deserts, grasslands, deforestation, wildfires, urban sprawl, flooding, erosion, strip mining

SS 5.3.3.b Describe the impact of extreme natural events in the United States on the human and physical environment.

For example: lightning, blizzards, floods, drought, hurricanes, tornadoes result in changes to agricultural/construction/public safety practices

SS 5.3.3.c Examine patterns of resource distribution and utilization in the United States.

For example: fisheries, forests, agricultural development, manufacturing regions

Movement

SS 5.3.4 Compare, contrast, and draw conclusions about the characteristics of culture and migration in the United States.

SS 5.3.4.a Compare and contrast patterns of culture within the United States over time and space.

For example: languages, religions, foods, music, sports, celebrations

SS 5.3.4.b Compare and contrast population characteristics of the United States.

For example: density, distribution, growth rates

SS 5.3.4.c Explain reasons for historical and present day migrations to and within the United States.

For example: economic opportunity, war, famine, natural disasters, persecution

Geospatial Skills and Geo-literacy

SS 5.3.5 Use geographic skills to interpret issues and events.

SS 5.3.5.a Explain the influences of physical and human geographic features on events in the United States.

For example: Developing major settlements around natural East Coast harbors such as New York City (New Amsterdam), building the Boston Post Road to improve connections and communications within the colonies, migrating through the Cumberland Gap into the Kentucky bluegrass region

SS 5.3.5.b Analyze aspects of human and physical geography that have shaped the settlement and development of Early America.

For example: latitude and longitude in the role of early navigation, groundwater and irrigation, westward expansion of European immigrants, seeds, fertile soils, agriculture, transportation systems, water power

History

Change, Continuity, and Context

SS 5.4.1 Investigate patterns of continuity and change over time from the Pre-Columbian era through the Constitution.

SS 5.4.1.a Examine the chronology of key events in the United States and communicate their impact on various groups in the past, present, and future.

For example: Development of civilizations in America before Columbus, founding of colonies, Native American responses to colonization, coming of American Revolution, founding of United States, creation of the United States Constitution, Bill of Rights, the gradual abolition of slavery in the northern states

Multiple Perspectives

SS 5.4.2 Describe and explain multiple perspectives of historical events in the Pre-Columbian era through the Constitution including marginalized and underrepresented groups.

SS 5.4.2.a Compare and contrast primary and secondary sources to better understand multiple perspectives of the same event.

For example: The Boston Massacre, Declaration of Independence, United States Constitution, historical biographies

SS 5.4.2.b Identify and describe how multiple perspectives facilitate the understanding of US history.

For example: Battle for the Old Northwest, Atlantic Slave Trade

Historical Analysis and Interpretation

SS 5.4.3 Analyze past and current events and challenges from the Pre-Columbian era through the Constitution.

SS 5.4.3.a Compare the impact of people, events, ideas, and symbols on various cultures and ethnic groups in the Pre-Columbian era through the Constitution.

For example: Native American cultures, exploration, conflict, colonization, the emergence of democratic institutions, the Revolution, founders and founding documents, the unique nature of the creation of the United States leading to a nation based upon personal freedom, inalienable rights, and democratic ideals, and other patriotic national symbols

Historical Inquiry and Research

SS 5.4.4 Apply the inquiry process to construct and answer historical questions.

SS 5.4.4.a Construct and answer questions about the Pre-Columbian era through the Constitution based on multiple sources.

For example: Why did people migrate to the Americas?

SS 5.4.4.b Evaluate and cite appropriate primary and secondary sources to research the Pre-Columbian era through the Constitution.

For example: use of appropriate citation format; determine the credibility, contextualization, and corroboration of sources

SS 5.4.4.c Gather, analyze, and communicate historical information from the Pre-Columbian era through the Constitution from multiple sources.

For example: document archives, artifacts, newspapers, interviews, pictures, posters, oral/written narratives, and electronic presentation

Nebraska Social Studies Standards

Middle School Standards Introduction: The purpose of Nebraska's 6-8 Social Studies Standards is to integrate important subject matter and skills, and to provide students a robust understanding of grade-specific concepts. The standards should not be viewed in isolation, but as a unifying approach to social studies curriculum and instruction.

6th Grade	7th Grade	8th Grade
Civics		
SS 6.1.1 Investigate the foundations, structures, and functions of governmental institutions.	SS 7.1.1 Analyze the foundations, structures and functions of governmental institutions.	SS 8.1.1 Investigate and analyze the foundation, structure, and functions of the United States government.
SS 6.1.2 Investigate the roles, responsibilities, and rights of citizens.	SS 7.1.2 Analyze the roles, responsibilities, and rights of citizens and groups in international societies.	SS 8.1.2 Evaluate the roles, responsibilities, and rights as local, state, national, and international citizens.
Economics		
SS 6.2.1 Investigate how economic decisions affect the well-being of individuals and society.	SS 7.2.1 Not addressed at this level	SS 8.2.1 Not addressed at this level
SS 6.2.2 Not addressed at this level	SS 7.2.2 Not addressed at this level	SS 8.2.2 Understand personal and business financial management.
SS 6.2.3 Explain the interdependence of producers and consumers.	SS 7.2.3 Not addressed at this level	SS 8.2.3 Not addressed at this level
SS 6.2.4 Not addressed at this level	SS 7.2.4 Investigate how varying economic systems impact individuals in a civilization/society.	SS 8.2.4 Justify and debate economic decisions made by North American societies.
SS 6.2.5 Not addressed at this level	SS 7.2.5 Analyze information using appropriate data to draw conclusions about the total production, income, and economic growth in various economies.	SS 8.2.5 Illustrate how international trade impacts individuals, organizations, and nations.
SS 6.2.6 Not addressed at this level	SS 7.2.6 Illustrate how international trade impacts individuals, organizations, and nations/societies.	

Nebraska Social Studies Standards

6th Grade	7th Grade	8th Grade
Geography		
SS 6.3.1 Identify where (spatial) and why people, places, and environments are organized on the Earth's Surface.	SS 7.3.1 Not addressed at this level	SS 8.3.1 Not addressed at this level
SS 6.3.2 Not addressed at this level	SS 7.3.2 Evaluate how regions form and change over time.	SS 8.3.2 Examine how regions form and change over time.
SS 6.3.3 Identify how the natural environment is changed by natural and human forces, and how humans adapt to their surroundings.	SS 7.3.3 Determine how the natural environment is changed by natural and human forces and how humans adapt to their surroundings.	SS 8.3.3 Determine how the natural environment is changed by natural and human forces and how humans adapt to their surroundings.
SS 6.3.4 Interpret and summarize patterns of culture around the world.	SS 7.3.4 Examine and interpret patterns of culture around the world.	SS 8.3.4 Not addressed at this level
SS 6.3.5 Not addressed at this level	SS 7.3.5 Compare issues and/or events using geographic knowledge and skills to make informed decisions.	SS 8.3.5 Not addressed at this level
History		
6.4.1 Analyze patterns of continuity and change over time in world history.	SS 7.4.1 Compare patterns of continuity and change over time in world history.	SS 8.4.1 Analyze patterns of continuity and change over time in United States history.
SS 6.4.2 Use multiple perspectives to identify the historical, social, and cultural context of past and current events.	SS 7.4.2 Use multiple perspectives to examine the historical, social, and cultural context of past and current events.	SS 8.4.2 Use multiple perspectives to evaluate the historical, social, and cultural context of past and current events.
SS 6.4.3 Examine historical events from the perspectives of marginalized and underrepresented groups.	SS 7.4.3 Examine historical events from the perspectives of marginalized and underrepresented groups.	SS 8.4.3 Examine historical events from the perspectives of marginalized and underrepresented groups.
SS 6.4.4 Interpret and evaluate sources for historical context.	SS 7.4.4 Analyze and interpret sources for perspective and historical context.	SS 8.4.4 Evaluate and interpret sources for perspective and historical context.
SS 6.4.5 Apply the inquiry process to construct and answer historical questions.	SS 7.4.5 Apply the inquiry process to construct and answer historical questions.	SS 8.4.5 Apply the inquiry process to construct and answer historical questions.

Grade 6

Grade Level Summary and Theme

World Studies I: In sixth grade, students are ready to deepen their understanding of the Earth and its peoples through the study of history, geography, politics, culture, and economic systems. Students examine the world by exploring the location, place, and spatial organization of the world's ancient civilizations. In this way, students develop higher levels of critical thinking by considering why civilizations developed, where and when they did, and why they declined. Students will have multiple opportunities to employ maps and timelines, to compare the foundations of economic and political systems, and to engage in content-driven research and inquiry. Students will explore the connections between ancient and classical societies and contemporary civic ideas and issues. Students analyze the interactions among the various cultures, emphasizing their enduring contributions and the link between the contemporary and ancient worlds.

Civics

Forms and Functions of Government

SS 6.1.1 Investigate the foundations, structures, and functions of governmental institutions.

SS 6.1.1.a Analyze the different forms of government through the study of early civilizations.

For example: tribal, monarchy, democracy, republic, theocracy, tyranny and oligarchy

SS 6.1.1.b Identify the development of written laws and artifacts.

For example: Code of Hammurabi, Greek Democracy, Axumite, Confucius, Ten Commandments, Indian deities

SS 6.1.1.c Communicate the various ways governmental decisions have impacted people, places, and history.

For example: invasions, conquests, laws, public works, religious tolerance, censorship, hierarchy

SS 6.1.1.d Investigate important government principles.

For example: democracy, rule of law, justice, equality, toleration

Civic Participation

SS 6.1.2 Investigate the roles, responsibilities, and rights of citizens.

SS 6.1.2.a Describe ways individuals participate in the political process.

For example: tribal/family institutions, city-state, voting, contacting officials, civic engagement, decision making, leadership

SS 6.1.2.b Compare and contrast the roles and rights of individuals in Ancient Civilizations to those in the United States today.

For example: military service, voting, civic engagement, decision making, leadership

Economics

Economic Decision Making

SS 6.2.1 Investigate how economic decisions affect the well-being of individuals and society.

SS 6.2.1.a Compare the benefits and costs of economic decisions made by Ancient Civilizations.

For example: marginal benefits of the migration of the Swahili people throughout southern Africa, Constantine the Great's decision to convert the Roman Empire to Christianity, Ancient Mesopotamians that settled along the Tigris and Euphrates to sustain life in a desert

SS 6.2.1.b Examine how social and governmental decisions impact economic well-being.

For example: Under constant invasion, Chinese dynasties built the Great Wall. Europeans and Asians were able to establish trade through the Silk Road to attain resources not native to their own continents. The caste system of Ancient India established order in the government but at the sake of the liberty of those in lower castes. Use democratic process established in Greece to make a classroom decision.

Financial Literacy

SS 6.2.2 Not addressed at this level

Exchange and Markets

SS 6.2.3 Explain the interdependence of producers and consumers.

SS 6.2.3.a Identify producers and consumers for Ancient civilizations.

For example: Examine the independence and interdependence of social classes in ancient societies. List items sold and traded among various medieval societies.

SS 6.2.3.b Explain how the interaction between producers and consumers satisfied economic wants and needs.

For example: Research the various resources that were utilized as mediums of exchange like animals, cowry shells, gold, and porcelain. Examine how societies without currency differed from those with currency.

National Economy

SS 6.2.4 Not addressed at this level

Global Economy

SS 6.2.5 Not addressed at this level

Geography

Location and Place

SS 6.3.1 Identify where (spatial) and why people, places, and environments are organized on the Earth's surface.

SS 6.3.1.a Identify and illustrate the locations of the first cities, civilizations, and empires and the reasoning for their locations.

For example: river civilizations (Tigris/Euphrates, Yellow, Indus, Nile, Mesopotamia), early cities (Memphis, Ur, Babylon)

SS 6.3.1.b Investigate the human and physical characteristics of early patterns of civilizations and empires.

For example: agricultural societies (agricultural hearths for crops and livestock), deposits of copper and iron

Regions

SS 6.3.2 Not addressed at this level

Human Environment Interaction

SS 6.3.3 Identify how the natural environment is changed by natural and human forces, and how humans adapt to their surroundings.

SS 6.3.3.a Describe the impact of natural processes on the human and physical environments.

For example: precipitation, drought, earthquakes, tornadoes, floods, hurricanes, volcanic eruptions, mudslides

SS 6.3.3.b Summarize how early humans utilized and adapted to their physical environment.

For example: irrigation, levees, terraces, fertile soils, mechanized agriculture, changes in land use, clothing, sewage systems, scarcity of resources

Movement

SS 6.3.4 Interpret and summarize patterns of culture around the world.

SS 6.3.4.a Compare and contrast characteristics of groups of people/settlements.

For example: characteristics of river civilizations

SS 6.3.4.b Explain how cultural diffusion occurs.

For example: trade routes, migration, conquest/empire building

Geospatial Skills and Geo-literacy

SS 6.3.5 Not addressed at this level

History

Change, Continuity, and Context

SS 6.4.1 Analyze patterns of continuity and change over time in world history.

SS 6.4.1.a Examine the impact of people, events, and ideas, including various cultures and ethnic groups, on the world.

For example: Chavin, Zapotec, Olmec, Mesopotamia, Egypt, Indus, Greco-Roman, early Chinese and Japanese dynasties, Hinduism, Taoism, Buddhism, Judaism, Christianity, Islam

SS 6.4.1.b Analyze the impact of historical events in the world using symbols, maps, documents, and artifacts.

For example: Hammurabi's Code, symbols of world religions

Multiple Perspectives

SS 6.4.2 Use multiple perspectives to identify the historical, social, and cultural context of past and current events.

SS 6.4.2.a Identify evidence from multiple perspectives and sources to better understand the complexities of world history.

For example: Macedonian Empire, Persian Empire

SS 6.4.2.b Explain the use of primary and secondary sources to better understand multiple perspectives of the same event.

For example: foundational texts of world religions

SS 6.4.3 Examine historical events from the perspectives of marginalized and underrepresented groups.

SS 6.4.3.a Identify how differing experiences can lead to the development of perspectives.

For example: religious, ethnic and racial groups

SS 6.4.3.b Interpret perspectives of marginalized and underrepresented regions around the world.

For example: inclusion of non-Eurasian civilizations

Historical Analysis and Interpretation

SS 6.4.4 Interpret and evaluate sources for historical context.

SS 6.4.4.a Compare and contrast primary and secondary sources of history.

For example: Compare Lascaux cave paintings with a historian's interpretation of the Paleolithic Era.

SS 6.4.4.b Analyze the relationships among historical events in the world and relevant contemporary issues.

For example: agriculture, technology, written laws

Historical Inquiry and Research

SS 6.4.5 Apply the inquiry process to construct and answer historical questions.

SS 6.4.5.a Construct and answer inquiry questions using multiple historical sources.

For example: What defines an empire?

SS 6.4.5.b Identify and cite appropriate sources for research about world history, including primary and secondary sources.

For example: Hammurabi's Code, Twelve Tables

SS 6.4.5.c Gather, analyze, and communicate historical information about the world from multiple sources.

For example: document archives, artifacts, newspapers, interviews, pictures, posters, oral/written narratives, and electronic presentation

Grade 7

Grade Level Summary and Theme

World Studies II: In seventh grade, students become more proficient with the core concepts in social studies. This grade level focuses on a regional examination of geography, civics, economics, and history of post-classical societies. The purpose of studying these different regions and eras is to develop an understanding of major factors influencing our world today.

The course guides students in exploring the connection between historical developments and contemporary global issues. Students will have multiple opportunities to use geographic concepts and processes, develop economic reasoning, examine specific historical ideas, beliefs, and themes, and analyze how individuals and societies have changed over time. Students will further develop fundamental concepts and processes of authority, power, and influence with particular emphasis on the democratic skills and attitudes necessary to become responsible citizens.

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Civics

Forms and Functions of Government

SS 7.1.1 Analyze the foundations, structures, and functions of governmental institutions.

SS 7.1.1.a Describe different forms and structures of government around the world and how they address the needs of the citizens.

For example: republic, monarchy, authoritarian/dictatorship, how nation-states interact, unlimited forms of government, limited forms of government, imperialism

SS 7.1.1.b Identify and report significant historic events and documents that have influenced governmental institutions and their function.

For example: any governments of major societies from post-classical societies up to present that could include French Revolution, Justinian's Code, Iroquois Confederacy, Communist Manifesto, United States Constitution, Magna Carta, Native American treaties with federal government, trade agreements, arms control

SS 7.1.1.c Analyze how governmental systems have changed over time and how those developments influence civic life and ideals around the world.

For example: increased role and influence of technology on society, impact of global conflicts on local communities

Civic Participation

SS 7.1.2 Analyze the roles, responsibilities, and rights of citizens and groups in international societies.

SS 7.1.2.a Examine ways in which individuals and groups participate in the political process in different regions of the globe.

For example: interconnected nature of world events/relationships, recognize multiple perspectives on issues, demonstrate ethical use of information, service learning, volunteerism, social movements, voting

SS 7.1.2.b Evaluate how cooperation and conflict among people around the world have contributed to political, economic, and social events and situations.

For example: treaties, aftermath of global conflicts and the rise of international organizations (United Nations, NATO, League of Nations, World Health Organization)

SS 7.1.2.c Explain the roles and influence of individuals, groups, and the media on governments in an interdependent society.

For example: printing press, right to petition, media literacy, media conglomerates, social media platforms, cyber security concerns

Economics

Economic Decision Making

SS 7.2.1 Not addressed at this level

Financial Literacy

SS 7.2.2 Not addressed at this level

Exchange and Markets

SS 7.2.3 Not addressed at this level

National Economy

SS 7.2.4 Investigate how varying economic systems impact individuals in a civilization/society.

SS 7.2.4.a Compare and contrast characteristics of different socio-economic groups in economic systems.

For example: traditional, market, command/communism, socialism, feudal, or caste systems - Examine the daily life of the indigenous people of Guatemala as opposed to those in urban areas.

SS 7.2.4.b Identify the relationships between diverse socio-economic groups and their economic systems in the modern world.

For example: Compare tax structures in various countries and how the people are impacted.

SS 7.2.5 Analyze information using appropriate data to draw conclusions about the total production, income, and economic growth in various economies.

SS 7.2.5.a Define the government's role in various economic systems.

For example: democratic governments' impact on capitalism and dictators' impact on command economies, tobacco industry and how rules come about in the US vs. tobacco industry in Cuba

SS. 7.2.5.b Identify various economic indicators that governments use to measure modern world societies, nations, and cultures.

For example: Explore consumption, government spending, business investment, balance of trade, exports, imports, life expectancy, literacy rates, income, etc.

SS 7.2.5.c Categorize goods and services provided in modern societies, nations, and cultures into the four factors of production.

For example: Identify the four factors of production (land, labor, capital, and entrepreneurship) and how they manifest in a diverse way from culture to culture and over time.

Global Economy

SS 7.2.6 Illustrate how international trade impacts individuals, organizations, and nations/societies.

SS 7.2.6.a Explain how individuals gain through specialization and voluntary trade and how international trade affects the domestic economy.

For example: Business owners are able to explore the world to find labor sources that help maximize profit. Many of the economies of the Americas owe their establishment and success to the development and processing of sugar cane. Corporations chartered for colonial settlement: Dutch East India Company, Virginia Company, etc.

Geography

Location and Place

SS 7.3.1 Not addressed at this level

Regions

SS 7.3.2 Evaluate how regions form and change over time.

SS 7.3.2.a Classify physical and human characteristics of places and regions.

For example: climate, landforms, languages, religions

SS 7.3.2.b Interpret the impact of land and water features on human decisions.

For example: location of settlements and transportation with respect to physical features

SS 7.3.2.c Identify how humans construct major world regions and the impact on human societies.

For example: geographic factors that influence international relationships and economic development-trade, communication, transportation, infrastructure

Human Environment Interaction

SS 7.3.3 Determine how the natural environment is changed by natural and human forces and how humans adapt to their surroundings.

SS 7.3.3.a Explain the impact of natural processes on human and physical environments.

For example: temperature, precipitation, drought, earthquakes, tornadoes, floods, hurricanes, volcanic eruptions, mudslides

SS 7.3.3.b Research and describe how humans have utilized and adapted to their physical environment.

For example: rivers, floods, precipitation, drought, use of natural resources

Movement

SS 7.3.4 Examine and interpret patterns of culture around the world.

SS 7.3.4.a Compare and contrast characteristics of groups of people/settlements.

For example: elements of culture including languages, religions, foods, arts, clothing, education, etc.

SS 7.3.4.b Develop a logical process to describe how cultural diffusion occurs and how the diffusion of ideas impacts cultures.

For example: migration, conquering, trade

Geospatial Skills and Geo-literacy

SS 7.3.5 Compare issues and/or events using geographic knowledge and skills to make informed decisions.

SS 7.3.5.a Classify the physical or human factors that explain the geographic patterns of world events.

For example: Use maps/charts/diagrams/timelines/mapping technology to track and analyze historical changes over space and time (spread of religious groups, spatial connections through trade or political arrangement).

SS 7.3.5.b Develop geographic representations and analyze the role of geographic physical and human factors in determining the arrangement of economic activity and patterns of human settlement.

For example: geographic concentration of manufacturing, banking, or industries, urbanization, availability of arable land, water and suitable climate for farming, access to resources for development

History

Continuity, Change, and Context

SS 7.4.1 Compare patterns of continuity and change over time in world history.

SS 7.4.1.a Analyze the impact of people, events, and ideas, including various cultures and ethnic groups, on the world.

For example: Songhai, Mali, Gupta Empire, Han Dynasty, Hinduism, Taoism, Buddhism, Judaism, Christianity, Islam, Sikhism, Silk Road, Trans-Saharan Trade, Incas, Mayans, Aztecs

SS 7.4.1.b Analyze the impact of historical events in the world using symbols, maps, documents, and artifacts.

For example: trade routes

Multiple Perspectives

SS 7.4.2 Use multiple perspectives to examine the historical, social, and cultural context of past and current events.

SS 7.4.2.a Analyze evidence from multiple perspectives and sources to better understand the complexities of world history.

For example: caste system, partition of India, Ibn Battuta, Zheng He, Marco Polo, Mansa Musa, Mongol Empire, Berlin Conference, Arab-Israeli Conflict, Latin American revolutions, Columbian Exchange

SS 7.4.2.b Compare and contrast primary and secondary sources to better understand multiple perspectives of the same event.

For example: foundational texts of world religions

SS 7.4.3 Examine historical events from the perspectives of marginalized and underrepresented groups.

SS 7.4.3.a Identify how differing experiences can lead to the development of perspectives.

For example: religious, ethnic and racial groups

SS 7.4.3.b Interpret perspectives of marginalized and underrepresented regions around the world.

For example: civilizations from all regions of the world

Historical Analysis and Interpretation

SS 7.4.4 Analyze and interpret sources for perspective and historical context.

SS 7.4.4.a Compare and contrast primary and secondary sources of history.

For example: Compare eyewitness accounts of the Black Death with contemporary medical understandings.

SS 7.4.4.b Identify the cause and effect relationships among historical events in the world and relevant contemporary issues.

For example: migrations, declarations of war, treaties, alliances, epidemics

Historical Inquiry and Research Skills

SS 7.4.5 Apply the inquiry process to construct and answer historical questions.

SS 7.4.5.a Construct and answer inquiry questions using multiple historical sources.

For example: Students engage in inquiry and gather evidence to provide a response.

SS 7.4.5.b Evaluate and cite appropriate sources for research about world history, including primary and secondary sources.

For example: Interpret primary and secondary sources to address the inquiry. Demonstrate ethical use of information and copyright guidelines by appropriately quoting or paraphrasing from a text and citing the source using available resources.

SS 7.4.5.c Gather, analyze, and communicate historical information about the world from multiple sources.

For example: document archives, artifacts, newspapers, interviews, pictures, posters, oral/written narratives, and electronic presentation

Grade 8

Grade Level Summary and Theme

United States History: In eighth grade, students develop a new, more abstract level of understanding of social studies concepts. The context for developing this understanding is U.S. history and government. After reviewing the Colonial foundations of what became the United States, students explore the ideas, issues, and events from the adoption of the United States Constitution through the Gilded Age. Study of the founding of the United States allows students to explore the development of the United States' unique institutions of government, civic ideals, geography and economy.

Civics

Forms and Functions of Government

SS 8.1.1 Investigate and analyze the foundation, structure, and functions of the United States government.

SS 8.1.1.a Identify and describe the different systems of government.
For example: Monarchy, Federal, Confederate, Unitary, Tribal, corporate

SS 8.1.1.b Analyze the structure and roles of the United States government in meeting the needs of the citizens governed, managing conflict, and establishing order and security.
For example: Chinese Exclusion Act, Fugitive Slave Laws, 13th, 14th, 15th Amendments, antitrust laws, Homestead Act, Indian Removal Act

SS 8.1.1.c Examine the development of foundational laws and other documents in the United States government.
For example: Declaration of Independence, United States Constitution, Preamble, Bill of Rights

SS 8.1.1.d Evaluate how various United States government decisions impact people, place, and history.
For example: taxation, distribution of resources, acquisition of territories, Trail of Tears, Indian Removal Act, Dred Scott decision, treaties, Louisiana Purchase, census, Civil War, War of 1812, Mexican-American War

SS 8.1.1.e Describe how important government principles are shown in American government.
For example: freedom, individual rights, representative democracy, equality, rule of law, popular sovereignty, justice, tribal sovereignty

SS 8.1.1.f Analyze the development and significance of political parties in the United States.
For example: Federalists and Antifederalists

Civic Participation

SS 8.1.2 Evaluate the roles, responsibilities, and rights as local, state, national, and international citizens.

SS 8.1.2.a Demonstrate ways individuals participate in the political process.

For example: registering and voting, elections, contacting government officials, campaign involvement, demonstrating ethical use of information

SS 8.1.2.b Analyze the significance of patriotic symbols, songs and activities in terms of historical, social, and cultural contexts.

For example: Pledge of Allegiance, "The Star-Spangled Banner," "America the Beautiful," recognition of Memorial Day, Independence Day, Veterans Day, Martin Luther King, Jr. Day, Constitution Day, Patriot's Day - 9/11, Native American Heritage Day, tribal flag songs

SS 8.1.2.c Demonstrate civic engagement.

For example: engaging in service learning projects, volunteerism, student government participation, participation in simulations of democratic processes (mock trials, elections, etc.), USCIS Citizenship test, communicating through civil discourse

SS 8.1.2.d Describe how cooperation and conflict among people have contributed to political, economic, and social events and situations in the United States.

For example: Louisiana Purchase, Civil War, Civil Disobedience, NAACP movement, women's movement, slave rebellions, Jim Crow laws

SS 8.1.2.e Compare and contrast the roles and influences of individuals, groups, and the media on American government.

For example: Seneca Falls Convention, Underground Railroad, Horace Greeley, Harriet Beecher Stowe, Jane Addams, Muckrakers, Booker T. Washington, Chief Standing Bear, Susan La Flesche

Economics

Economic Decision Making

SS 8.2.1 Not addressed at this level

Financial Literacy

SS 8.2.2 Understand personal and business financial management.

SS 8.2.2.a Identify skills for future financial success.

For example: Identify key terms associated with budgeting, credit, savings, credit score, investing, fraud, and risk management.

SS 8.2.2.b Understand tools, strategies, and systems used to maintain, monitor, control, and plan the use of financial resources.

For example: Analyze the impact of credit on an individual's ability to acquire goods and services, charitable contributions.

Exchange and Markets

SS 8.2.3 Not addressed at this level

National Economy

SS 8.2.4 Justify and debate economic decisions made by North American societies.

SS 8.2.4.a Research the origins and development of the economic system, banks, and financial institutions in the United States.

For example: Examine the work of Alexander Hamilton and his influence on the banking system in the U.S. economy.

SS 8.2.4.b Explain how tax revenues are collected and distributed.

For example: Review the Constitution to understand the roles of each branch in establishing a national budget and how the separation of powers is structured.

SS 8.2.4.c Describe the progression of money and its role in early United States history.

For example: Identify what forms of currency/bartering were used as a medium for exchange among various Native American tribes. Examine what services and regulations were established during the Progressive Era as urban areas' populations boomed. Examine the National Banking Act of 1863.

Global Economy

SS 8.2.5 Illustrate how international trade impacts individuals, organizations, and nations.

SS 8.2.5.a Explain that currency must be converted to make purchases in other countries.

For example: Trace the conversion of products and currency between the French and the indigenous tribes of the Midwest.

SS 8.2.5.b Recognize how trade barriers impact the prices and quantity of goods.

For example: Examine the impact of the Sugar and Molasses Act of 1733 and the Stamp Act of 1765.

Geography

Location and Place

SS 8.3.1 Not addressed at this level

Regions

SS 8.3.2 Examine how regions form and change over time.

SS 8.3.2.a Evaluate physical and human characteristics of places and regions.

For example: climate, landforms, religious groups, ethnic groups

SS 8.3.2.b Determine the impact of land and water features on human decisions.

For example: location of settlements and transportation with respect to physical features

SS 8.3.2.c Identify and justify how humans develop major world regions and the impact on human societies.

For example: geographic factors that influence international relationships and economic development-trade, communication, transportation, infrastructure

Human Environment Interaction

SS 8.3.3 Determine how the natural environment is changed by natural and human forces and how humans adapt to their surroundings.

SS 8.3.3.a Interpret the impact of natural processes on human and physical environments.

For example: precipitation, drought, earthquakes, tornadoes, floods, hurricanes, volcanic eruptions, mudslides

SS 8.3.3.b Analyze how humans have utilized and adapted to their physical environment.

For example: rivers, wetlands, forests, treeless plains, precipitation, drought

Movement

SS 8.3.4 Not addressed at this level

Geospatial Skills and Geo-literacy

SS 8.3.5 Not addressed at this level

History

Continuity, Change, and Context

SS 8.4.1 Analyze patterns of continuity and change over time in United States history.

SS 8.4.1.a Evaluate the impact of people, events, and ideas, including various cultures and ethnic groups, on the United States.

For example: Columbian Exchange, European colonization and Native American response, Colonial America, Great Awakening, Benjamin Franklin, George Washington, Thomas Jefferson, establishing a nation, Manifest Destiny, Indian Removal Act, slavery, expansion and reform, Dred Scott decision, secession, Abraham Lincoln, Civil War and Reconstruction, Standing Bear, rise of corporations, growth of organized labor, assembly line, immigration, industrialization John Deere, Thomas Edison, Alexander Graham Bell, George Washington Carver, democratic ideals, patriotism, citizen's rights

SS 8.4.1.b Evaluate the impact of historical events in the United States using symbols, maps, documents, and artifacts.

For example: founders and founding documents, national symbols

Multiple Perspectives

SS 8.4.2 Use multiple perspectives to evaluate the historical, social, and cultural context of past and current events.

SS 8.4.2.a Compare and interpret evidence from multiple perspectives and sources to better understand the complexities of US history.

For example: Dawes Act, Santee Mankato Executions (Dakota Uprising), Chinese Exclusion Act, Treaty of Guadalupe Hidalgo, Reconstruction Acts and Amendments, The Emancipation Proclamation, organized labor, Women's Suffrage Movement

SS 8.4.2.b Evaluate the relevancy, accuracy, and completeness of primary and secondary sources to better understand multiple perspectives of the same event.

For example: The Bill of Rights, slavery, Gettysburg Address, "The New Colossus" poem

SS 8.4.3 Examine historical events from the perspectives of marginalized and underrepresented groups.

SS 8.4.3.a Identify how differing experiences can lead to the development of perspectives.

For example: Compare primary accounts by American Indian peoples and American settlers regarding the expansion of the United States.

SS 8.4.3.b Interpret how and why marginalized and underrepresented groups and/or individuals might understand historical events similarly or differently.

For example: Compare how differing Native American groups and Spanish-speaking peoples responded to the Indian Removal Act and the Mexican-American War.

Historical Analysis and Interpretation

SS 8.4.4 Evaluate and interpret sources for perspective and historical context.

SS 8.4.4.a Compare and contrast primary and secondary sources of history.

For example: Compare what texts say about Wounded Knee Massacre to Black Elk's account of the same event.

SS 8.4.4.b Evaluate the relationships among historical events in the United States and relevant contemporary issues.

For example: political party platforms, continuing debates about role of government

Historical Inquiry and Research Skills

SS 8.4.5 Apply the inquiry process to construct and answer historical questions.

SS 8.4.5.a Identify areas of inquiry by using student-generated questions about multiple historical sources.

For example: Why is the Gettysburg Address considered an important statement of American national ideals?

SS 8.4.5.b Locate, analyze, and cite appropriate sources for research about United States history, including primary and secondary sources.

For example: classroom texts, Gettysburg Address, tribal treaties, major online historical archives like Library of Congress, National Archives, and local and state archives

SS 8.4.5.c Gather, analyze, and communicate historical information about United States history from multiple sources.

For example: primary sources, secondary sources, popular media, scholarly perspectives

High School Civics

Summary

In a constitutional republic, productive civic engagement requires knowledge about the functions of state and local government, courts and legal systems, the U.S. Constitution, other nations' systems and practices, and international institutions. Civics is not limited to the study of politics and society; it also encompasses participation in classrooms and schools, neighborhood, groups, and organizations using civic virtues and principles to guide that participation (which includes the discussion of issues and making choices and judgments with information and evidence, civility and respect, and concern for fair procedures). Civics enables students not only to study how others participate but also to practice participating and taking informed action themselves.

Forms and Functions of Government

SS HS.1.1 Analyze the foundation, structures, and functions of the United States government as well as local, state, and international governments.

SS HS.1.1.a Examine the historical foundation that influenced the creation of the United States Constitution.

For example: philosophers, social contract theory, natural rights, Constitutional Convention, Federalist, and Anti-Federalist Papers, Iroquois Confederation, and the imbalance of representation

SS HS.1.1.b Evaluate the structure of American constitutional government.

For example: federalism, democracy, representative government, branches of the government, separation of powers, checks and balances, amendment process, concurrent/enumerated/implied powers, electoral college, Bill of Rights, Reconstruction amendments, Prohibition, women's vote

SS HS.1.1.c Analyze the functions of United States government and its outcomes.

For example: national security, legislative law-making, executive implementation, judicial interpretation, constitutionalism, taxation, naturalization of citizens, environmental implications

SS HS.1.1.d Analyze the foundation, structures, and functions of local government and its outcomes.

For example: city council, school board, county government, regional boards, grassroots, local organizations, community organizations

SS HS.1.1.e Analyze the foundation, structures, and functions of state government and its outcomes.

For example: bicameral/unicameral, reapportionment/redistricting, branches of government, judiciary process, penal system

SS HS.1.1.f Analyze the foundation, structures, and functions of supranational organizations.

For example: United Nations, NATO, European Union, treaties, trade organizations, Native American Treaties

SS HS.1.1.g Analyze the roles that political parties have played in the United States.

For example: Republican Party - Civil War, Populist Party - Progressive movement, Democratic Party - New Deal, Southern Strategy- Dixiecrats, emergence of the Tea Party Movement, hyperpartisanship

SS HS.1.1.h Analyze United States foreign policy issues.

For example: methods, approaches, events, and their outcomes on various groups of people

Civic Participation

SS HS.1.2 Demonstrate meaningful civic participation by analyzing local, state, national, or international issues and policies.

SS HS.1.2.a Investigate how individuals and groups can effectively use the structure and functions of various levels of government to shape policy.

For example: lobbying, voting, contacting government officials, petitioning, civil disobedience, tribal voting, tribal government officials, analyze past voting patterns and discuss methods to increase participation in voting

SS HS.1.2.b Analyze and communicate the significance and impacts of patriotic symbols, songs, holidays, and activities in terms of historical, social, and cultural contexts.

For example: Pledge of Allegiance, "The Star-Spangled Banner," "America the Beautiful," Dr. Martin Luther King, Jr. Day and "I Have a Dream" speech, George Washington's Birthday, Abraham Lincoln's Birthday, Presidents Day, Native American Heritage Day, Constitution Day, Memorial Day, Veterans Day, and Thanksgiving Day, 4th of July, Hispanic Heritage month, tribal flag songs

SS HS.1.2.c Engage and reflect on participation in civic activities.

For example: discussing current issues, advocating for personal rights and the rights of others, influencing governmental actions, participating in civil discourse, registering for selective service, registering to vote, and voting when reaching the age of majority, participating in community improvement activities, service learning

SS HS.1.2.d Investigate an issue and communicate which level of government is most appropriate to utilize in addressing the issue.

For example: students communicate through an editorial, public service announcement, pamphlet, public presentation, tribal council, community entities

SS HS.1.2.e Demonstrate how individuals, groups, and the media check governmental practices.

For example: Watergate, Civil Rights movement, Suffrage movement

SS HS.1.2.f Analyze various media sources for accuracy and perspective.

For example: news media literacy, online civic reasoning

Summary

Effective economic decision making requires that students have a keen understanding of the ways in which individuals, businesses, governments, and societies make decisions to allocate human capital, physical capital, and natural resources among alternative uses. This economic reasoning process involves the consideration of costs and benefits with the ultimate goal of making decisions that will enable individuals and societies to be as well-off as possible. The study of economics provides students with the concepts and tools necessary for an economic way of thinking and helps students understand the interaction of buyers and sellers in markets, workings of the national economy, and interactions within the global marketplace. Economics is grounded in knowledge about how people choose to use resources. Economic understanding helps individuals, businesses, governments, and societies choose what resources to allocate to work, to school, and to leisure; how many dollars to spend, and how many to save; and how to make informed decisions in a wide variety of contexts. Economic reasoning and skillful use of economic tools draw upon a strong base of knowledge about human capital, land, investments, money, income and production, taxes, and government expenditures. To be effective participants in our representative democracy, students need an understanding of economics.

Economic Decision Making

SS HS.2.1 Apply economic concepts that support rational decision making.

SS HS.2.1.a Make decisions by systematically considering alternatives and consequences through the use of cost benefit analysis.

For example: PACED decision making model (Problem, Alternatives, Criteria, Evaluate, Decision); Some potential topics could include options for energy sources, center pivot irrigation, oil pipeline through Nebraska, use of pesticides and fertilizers. Decisions made by businesses and social issues including corporate social responsibility programs, green energy, living wage, paid parental leave, equal pay, social entrepreneurship (businesses that aim to solve social problems).

SS HS.2.1.b Assess the incentives for investing in personal education, skills, and talents.

For example: Research returns to education, look at cost of education, and compare to earnings; costs of returning to small towns vs. cities

Financial Literacy

SS HS.2.2 Develop a plan to support short- and long-term goals.

SS HS.2.2.a Develop a budget using a financial record keeping tool.

For example: Mint.com, spreadsheet, Quicken, journal on paper

SS HS.2.2.b Compare and contrast different types of banking accounts and features.

For example: checking, savings, money market, CDs

SS HS.2.2.c Assess the effects of taxes on personal income.

For example: state income tax, federal income tax, social security, property tax, sales tax, etc.

SS HS.2.2.d Compare and contrast possible career choices.

SS HS.2.3 Critique strategies used to establish, build, maintain, monitor, and control credit.

SS HS.2.3.a Compare and contrast the costs and benefits of different types and sources of credit and debt.

For example: credit card interest rates, personal loans rates, mortgage rates, student loan rates, etc.

SS HS.2.3.b Investigate strategies to effectively manage debt and factors that influence credit ratings.

For example: Credit cards, auto loans, mortgages, extended warranties

SS HS.2.4 Evaluate savings, investment, and risk management strategies to achieve financial goals.

SS HS.2.4.a Explain the importance of saving and investing early to ensure financial security.

For example: compound interest, use rule of 72, time value of money

SS HS.2.4.b Develop an investment strategy to achieve short- and long-term goals utilizing a variety of investment vehicles.

For example: stocks, bonds, mutual funds, retirement plans, investment in education including analysis of student loans, average income of job, and repayment of loan, investment in homeownership vs. rental

SS HS.2.4.c Examine appropriate and cost effective risk management strategies.

For example: health, disability, life, auto insurance, personal identity protection, extended warranties, fraud protection

Exchange and Markets

HS.2.5 Explain the role of markets in determining prices and allocating scarce goods and services.

SS HS.2.5.a Summarize the role of competition, markets, and prices.

For example: Use product and factor market/circular flow; compare market structures (perfect competition to monopoly)

SS HS.2.5.b Illustrate how markets determine changing equilibrium prices through supply and demand analysis.

For example: changes in demand and supply, changes in quantity demanded and quantity supplied

SS HS.2.5.c Hypothesize how competition between sellers could result in lower prices, higher quality products, and better customer service.

For example: Look at businesses in the monopolistic market structure - competing for consumer dollars, trying to earn your business.

SS HS.2.5.d Investigate possible causes and consequences of shortages and surpluses.

For example: use current events and public policy - rent control and minimum wage, etc.

National Economy

SS HS.2.6 Explain how economic institutions impact different individuals and various groups.

SS HS.2.6.a Explain how various economic institutions have played a role in United States economic policy and practice.

For example: corporations, labor unions, financial institutions, stock markets, cooperatives, small business and entrepreneurs, and business partnerships

SS HS.2.6.b Calculate and describe the impact of economic indicators.

For example: trends and business cycles using GDP, unemployment rates including frictional, structural, cyclical, inflation/deflation rates

SS HS.2.6.c Describe the functions and role of the Federal Reserve System and its influence through monetary policy.

For example: balancing inflation and unemployment, and how banks and a sound monetary system are critical to a functioning economy

SS HS.2.7 Assess the roles of institutions such as clearly defined property rights and the rule of law in a market economy.

SS HS.2.7.a Assess how property rights are defined, enforced, and limited by government.

For example: contracts and the rule of law, zoning laws, eminent domain, Homestead Act, copyright laws, patents, and intellectual property

SS HS.2.8 Compare and contrast the roles and responsibilities of government and differing outcomes from various economic systems: command/communism, mixed, socialism, market, and traditional economic systems.

SS HS.2.8.a Examine how governments utilize taxation to provide goods and services to society.

For example: disaster relief, flood control, military and armed forces, ownership of resources

SS HS.2.8.b Evaluate the effectiveness of government policies altering market outcomes.

For example: Use economic theory to analyze current events and public policy. Compare and contrast farm subsidies and corporate incentives.

SS HS.2.8.c Critique government policies and regulations in areas of market failure.

For example: monopolies, externalities, non-enforcement of property rights

SS HS.2.9 Examine the government's influence on economic systems through fiscal policy.

SS HS.2.9.a Explore various forms of taxation including income, sales, and capital gains and examine how governments can use taxing and spending policies to influence behavior.

For example: alcohol tax, home mortgage interest deduction, sales tax, etc.

SS HS.2.9.b Examine the impact of fiscal policy on budget deficits/surpluses and national debt.

For example: Spending resources to service the debt impacts opportunities for using the funds for other needs.

Global Economy

SS HS.2.10 Investigate how international trade affects individuals, organizations, the domestic economy, and other nations.

SS HS.2.10.a Explore comparative advantage among different countries.

For example: research on what different countries produce when they specialize in those products

SS HS.2.10.b Analyze the impact on prices and quantities of various trade policies, both domestically and internationally.

For example: tariffs, quotas, protectionist policies, and the resulting changes in price and quantity; research NAFTA and/or Brexit.

Summary

To succeed in an increasingly interconnected world, Nebraska's next generation of citizens will need to be fluent in spatial knowledge. Geography at the high school level prepares students to understand the world and their place in it. Beyond merely knowing "Where?" the geographically minded person will be better equipped to answer the question of "Why there?" An integrative study of our planet's human and physical features will involve 21st century technologies and inquiry-based research methods. This approach will expand students' geographic knowledge and enable them to think critically about problems. Through analysis of spatial patterns and relationships over time and place, students will be better able to make sense of both the past and present, and be well equipped to address society's future needs.

Location and Place

SS HS.3.1 Evaluate where (spatial) and why people, places, and environments are organized on the Earth's surface.

SS HS.3.1.a Determine spatial organization of human settlements in relation to natural features.

For example: population density and distribution, world climate regions, city categorization, natural resource deposits, agricultural hearths, croplands, structure of communities, highway and rail networks

SS HS.3.1.b Analyze and explain changes in spatial patterns as a result of the interactions among human and physical processes.

For example: major world physical features (mountains, seas, rivers), patterns of human settlement on local, regional, national, and global scale, governmental systems, economic systems, site and situation, Weber's Least Cost Theory, Von Thunen Model of Land Use

Regions

SS HS.3.2 Evaluate how regions form and change over time.

SS HS.3.2.a Analyze physical and human processes that shape places and regions.

For example: historical influences, current events, natural disasters, climate change, conflicts, natural processes (erosion, plate tectonics), relationships and connections

SS HS.3.2.b Examine the importance of places and regions to individual and social identity and how identities change over space and time.

For example: popular cultural traits, folk cultural traits, national monuments and folklore, nationalism, ethnicity, migration, urbanization, demographic transition model, industrial development, toponymy (place names), regional identity (Corn Belt, Heartland, Homeland)

SS HS.3.2.c Evaluate the interdependence of places and regions.

For example: models of industrial and economic development, new international division of labor, supranational organizations (The United Nations, Association of Southeast Asian Nations [ASEAN], or The European Union), globalization, popular culture, international trade agreements, patterns of human migration, alliances, Paris Climate Agreement, central place theory

Human-Environment Interactions

SS HS.3.3 Analyze how the natural environment and cultural landscape are transformed by natural and human forces and interpret how humans adapt to their surroundings.

SS HS.3.3.a Explain components of Earth's physical systems and evaluate the impact of natural processes on human environments.

For example: atmosphere, lithosphere, biosphere, and hydrosphere, plate tectonics/continental drift, global ocean systems, atmospheric systems, natural disasters, Earth's orbit, seasonal changes in ice coverage, greenhouse effect

SS HS.3.3.b Evaluate how humans have utilized and adapted to their physical environment.

For example: renewable and non-renewable resources, the cultural landscape, natural disasters (hurricanes, wildfires), environmental technological adaptations (air conditioning, skyways, insulation), synthetic materials, human modifications to physical environment, conservation and environmentalism, Genetically Modified Organisms (GMO), agricultural revolutions, transportation networks, industrial revolutions, Von Thunen Model of Land Use, deforestation, desertification

Movement

SS HS.3.4 Compare and contrast patterns of human populations and culture over space and time on a local, national, and global scale.

SS HS.3.4.a Compare trends in human migration, urbanization, and demographic composition at a local, national, and global scale over time and short-term and long-term causes and effects.

For example: urban models, Demographic Transition Model, rural organization (long lot, metes and bounds, township and range), rural to urban migration, Human Development Index, Borchert's Epochs, trends locally, nationally, and globally over time, migration push and pull factors, effects of migration on both the source regions and destinations, More Developed Countries (MDCs) and Less Developed Countries (LDCs), demography

SS HS.3.4.b Examine the spread of cultural traits and the potential benefits and challenges of cultural diffusion, economic development, and globalization.

For example: cultural convergence and divergence, universalizing and ethnic religions, competition between multinational corporations and local businesses, folk cultures and popular cultures, spread of ideas (such as economic ideals, ideas on government, gender norms), diffusion of medical knowledge and impact on demographics, agricultural and industrial revolutions, models of economic development, the cultural landscape, Third Agricultural Revolution (Green Revolution), internet connectivity and cell phone networks, lingua franca, hypernationalism

SS HS.3.4.c Analyze the relationships of sovereign nations and the role of multinational organizations on conflict and cooperation both between and within countries.

For example: impacts of membership in multinational organizations and agreements, treaties, resource and technology exchanges, Heartland and Rimland Theory, demarcation of borders, territorial morphology

Geospatial Skills and Geo-literacy

SS HS.3.5 Evaluate issues and/or events using geographic knowledge and geospatial skills to make informed decisions.

SS HS.3.5.a Apply geographic knowledge and skills to interpret the past and present in order to plan for the future.

For example: developing a geographic question, acquiring and organizing data/information, performing analysis, presenting findings, and developing action plan

SS HS.3.5.b Analyze how geospatial skills and geo-literacy are applied to improve standards of living and solve problems.

For example: Examine how geospatial technologies (such as GIS [Geographic Information Systems] and remote sensing) and geographic knowledge (such as geopolitics) can be applied to better understand the world, address issues, and make spatial decisions (such as determining market potential, optimum usage of irrigation and fertilizers, or mapping public health outbreaks to determine source).

SS HS.3.5.c Evaluate geographical information sources for applications, credibility, and appropriateness in displaying spatial data.

For example: use maps (paper, digital, and mental), atlases, Global Positioning System (GPS), Geographic Information Systems (GIS), remote sensing, and forms of quantitative/qualitative data, analyze a map to determine appropriate use of scale, evaluate strengths and weaknesses of different map projections

Summary
History involves acquiring knowledge about significant events, developments, individuals, groups, documents, places, and ideas to support investigations about the past. Acquiring relevant knowledge requires assembling information from a wide variety of sources in an integrative process. Developing historical knowledge in connection with historical investigations not only helps students better remember the content because it has meaning, but also allows students to become better critical thinkers. High school history courses emphasize historical thinking. Historical thinking requires understanding and evaluating change and continuity over time, and making appropriate use of historical evidence in answering questions and developing arguments about the past. It involves going beyond simply asking, "What happened when?" to evaluating why and how events occurred and developments unfolded. It involves locating and assessing historical sources of many different types to understand the contexts of given historical eras and the perspectives of different individuals and groups within geographic units that range from the local to the global. Historical thinking is a process of chronological reasoning, which means wrestling with issues of causality, connections, significance, and context with the goal of developing credible explanations of historical events and developments based on reasoned interpretation of evidence.

United States History (Progressive Era – Present)

Change, Continuity and Context

HS.4.1 (US) Analyze and evaluate patterns of continuity and change over time in American history.

SS HS.4.1.a (US) Evaluate the cause and effect of historical events on various groups in the United States.

For example: To which conditions were Progressives responding? Why did the United States enter World War I? What caused the Great Depression? What caused the interpretation of "separate but equal" to change over time?

SS HS.4.1.b (US) Select, record, and interpret key national events in chronological order.

For example: Progressive Era, Women's Suffrage, World War I, Great Migration, Great Depression and New Deal, Naziism, World War II, Holocaust, Cold War, Civil Rights Era, contemporary United States

SS HS.4.1.c (US) Evaluate the impact of people, events, and ideas, including various cultures and ethnic groups, on the United States.

For example: 19th Amendment, *Brown v. Board of Education of Topeka*, Dolores Huerta, desegregation of the military following WWII, March on Washington, Movement for the Restoration of Tribal Status, continuing struggle for equality

Multiple Perspectives

SS HS.4.2 (US) Analyze the complexity of the interaction of multiple perspectives to investigate causes and effects of significant events in the development of history.

SS HS.4.2.a (US) Identify and evaluate how considering multiple perspectives facilitates an understanding of history.

For example: Nineteenth Amendment, 1924 National Origins Act, Indian Reorganization Act of 1934, Bracero program, Civil Rights Movement

SS HS.4.2.b (US) Evaluate the relevancy, accuracy, and completeness of primary and secondary sources to better understand multiple perspectives of the same event.

For example: Theodore Roosevelt's New Nationalism and Woodrow Wilson's New Freedom, Indian Reorganization Act and responses from tribal leaders, differing strategies in the struggle to gain black equality

SS HS.4.3 (US) Examine historical events from the perspectives of marginalized and underrepresented groups.

SS HS.4.3.a (US) Identify how differing experiences can lead to the development of perspectives.

For example: religious, racial or ethnic groups, immigrants, women, LGBTQ persons, and Native American nations

SS HS.4.3.b (US) Interpret how and why marginalized and underrepresented groups and/or individuals might understand historical events similarly or differently.

For example: Immigration and Naturalization Act of 1965, Stonewall Riots, American Indian Movement, Equal Rights Amendment, Civil Rights Act of 1964, *West Virginia v. Barnette*, United Farm Workers

Historical Analysis and Interpretation

SS HS.4.4 (US) Evaluate sources for perspective, limitations, accuracy, and historical context.

SS HS.4.4.a (US) Compare, contrast, and critique the central arguments in primary and secondary sources of history from multiple media.

For example: written documents, radio broadcasts, news broadcasts, film, newspapers, photographs, oral histories, virtual museum exhibits

SS HS.4.4.b (US) Evaluate strengths and limitations of a variety of primary and secondary historical sources.

For example: Jane Addams on settlement houses, Franklin Roosevelt's "Four Freedoms" Speech, Martin Luther King, Jr.'s "Letter from Birmingham Jail," Equal Rights Amendment

SS HS.4.4.c (US) Determine the relationship between multiple causes and effects of events and developments in the past.

For example: patterns of immigration and migration, presidential leadership strategies, tactics among different civil rights organizations

SS HS.4.4.d (US) Synthesize the relationships among historical events in the United States and relevant contemporary issues.

For example: voting behavior, political party platforms, economic trends, place relevant current events in historical context, the relationship between Native Americans living on and off the reservation

Historical Inquiry and Research

SS HS.4.5 (US) Apply the inquiry process to construct and answer historical questions.

SS HS.4.5.a (US) Construct meaningful questions about topics in U.S. history.

For example: "Why did the United States enter World War I?"

SS HS.4.5.b (US) Locate, evaluate, and cite appropriate sources for research about selected topics in U.S. History, including primary and secondary sources.

For example: Examine speeches from President Woodrow Wilson leading up to World War I, examine internal communications within Wilson administration, examine press coverage of events leading up to American entry.

SS HS.4.5.c (US) Select, organize, and corroborate relevant historical information about selected topics in U.S. History.

For example: Compare the sources and determine an initial answer to the inquiry.

SS HS.4.5.d (US) Synthesize historical information to create new understandings.

For example: Compare the answer students have created to secondary sources and potentially revise students' answers.

SS HS.4.5.e (US) Communicate inquiry results within a historical context.

For example: Provide an evidence-based answer to the inquiry, "Why did the United States enter World War I?"

Change, Continuity, and Context

HS.4.1 (WLD) Analyze and evaluate patterns of continuity and change over time in world history.

SS HS.4.1.a (WLD) Evaluate the cause and effect of historical events in the world.

For example: How did the rise of totalitarianism lead to war?

SS HS.4.1.b (WLD) Select, record, and interpret key global events in chronological order.

For example: emergence of new states and cultures, increased inter-regional trade, colonization and expansion, global interactions, Industrialization, Age of Revolutions, Imperialism, global conflict, Holocaust, globalization, decolonization, Cold War, contemporary events

SS HS.4.1.c (WLD) Evaluate the impact of people, events, and ideas, including various cultures and ethnic groups, on the world.

For example: trade networks, empires, revolutions, treaties, warfare, diplomacy, migration and immigration

Multiple Perspectives

SS HS.4.2 (WLD) Analyze the complexity of the interaction of multiple perspectives to investigate causes and effects of significant events in the development of history.

SS HS.4.2.a (WLD) Identify and evaluate how considering multiple perspectives facilitates an understanding of history.

For example: Scramble for Africa and indigenous response, Arab-Israeli Conflict, French Revolution, Haitian Revolution

SS HS.4.2.b (WLD) Evaluate the relevancy, accuracy, and completeness of primary and secondary sources to better understand multiple perspectives of the same event.

For example: compare accounts from colonizers and colonized, impact of trade on different population groups

SS HS.4.3 (WLD) Examine historical events from the perspectives of diverse groups.

SS HS.4.3.a (WLD) Identify how differing experiences can lead to the development of perspectives.

For example: diverse groups of historical figures and examples from political, religious, and ethnic groups

SS HS.4.3.b (WLD) Interpret how and why diverse groups and/or individuals might understand historical events similarly or differently.

For example: diverse groups of historical actors and examples from national, religious, and ethnic groups

Historical Analysis and Interpretation

SS HS.4.4 (WLD) Evaluate sources for perspective, limitations, accuracy, and historical context.

SS HS.4.4.a (WLD) Compare, contrast, and critique the central arguments in primary and secondary sources of history from multiple media.

For example: written documents, radio broadcasts, news broadcasts, film, newspapers, photographs, oral histories, virtual museum exhibits, works of art

SS HS.4.4.b (WLD) Evaluate strengths and limitations of a variety of primary and secondary historical sources.

For example: written and visual documents

SS HS.4.4.c (WLD) Determine the relationship between multiple causes and effects of events and developments in the past.

For example: patterns of migration and immigration, wars, diplomacy, government structures, religious movements

SS HS.4.4.d (WLD) Synthesize the relationships among historical events in the world and relevant contemporary issues.

For example: current events from various international news sources

Historical Inquiry and Research

SS HS.4.5 (WLD) Apply the inquiry process to construct and answer historical questions.

SS HS.4.5.a (WLD) Construct meaningful questions that initiate an inquiry.

For example: "Can peace lead to war?"

SS HS.4.5.b (WLD) Locate, evaluate, and cite appropriate sources for research about selected topics in world history, including primary and secondary sources.

For example: Examine the Treaty of Versailles and the League of Nations founding documents, examine maps from before and after treaty, examine contemporary responses to the treaty from a variety of countries.

SS HS.4.5.c (WLD) Select, organize, and corroborate relevant historical information about selected topics in world history.

For example: Compare the sources and determine an initial answer to the inquiry.

SS HS.4.5.d (WLD) Synthesize historical information to create new understandings.

For example: Compare the answer students have created to secondary sources and potentially revise students' answers.

SS HS.4.5.e (WLD) Communicate inquiry results within a historical context.

For example: Provide an evidence-based answer to the inquiry, "How do countries make decisions about war and peace?"

Nebraska K-12 Fine Arts Standards: Music

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Music: Students will develop and apply knowledge and skills to create, perform, and respond to music, making connections to human experiences.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Create		**FA 2.4.1 Students will compose, improvise, read, and perform music using pitch, rhythm, and dynamics** *(glossary)***.**	**FA 5.4.1 Students will compose, arrange, improvise, read, and perform music with melodies and accompaniments.**	**FA 8.4.1 Students will compose, arrange, improvise, read, and perform music with technical accuracy and expression.**	**FA 12.4.1 Students will compose, arrange, improvise, read, and perform music with an analytical understanding of the language of music** *(glossary)***.**
	Imagine/Plan	FA 2.4.1.a Improvise tonal and rhythmic patterns to create musical ideas, with teacher support, relating to: • specific purpose • interest • personal experience.	FA 5.4.1.a Generate concepts for original improvisation *(glossary)* or composition *(glossary)* from contrasting ideas, with teacher support, including: • specific purpose/function • interest • personal experience • expressive potential.	FA 8.4.1.a Develop a compositional *(glossary)* idea for a specific purpose or mood, with teacher guidance, including: • how elements of music *(glossary)* convey expressive intent • unity/variety • tension/release • how personal experiences influence musical choices.	FA 12.4.1.a Independently generate multiple compositional ideas *(glossary)* for a specific purpose or mood, including: • how elements of music *(glossary)* utilize expressive intent • unity/variety • tension/release • how personal experiences influence musical choices.
	Make/Evaluate/Refine	FA 2.4.1.b Explore and develop musical ideas (e.g., melody, rhythm) with teacher guidance.	FA 5.4.1.b Create, evaluate, and refine musical ideas with teacher-generated criteria (e.g., melody, rhythm, harmony).	FA 8.4.1.b Create, evaluate, and refine musical ideas that utilize a variety of compositional devices *(glossary)* (e.g., form, imitation).	FA 12.4.1.b Create, evaluate, and refine musical ideas that actualize creative intent with increasing craftsmanship.
		Left intentionally blank	*Left intentionally blank*	FA 8.4.1.c Identify and define compositional devices *(glossary)* in student creations.	FA 12.4.1.c Analyze compositional devices *(glossary)* in student creations.
	Present	FA 2.4.1.c Share music through performance or notation (non-traditional or traditional) (e.g., singing, playing) with teacher guidance.	FA 5.4.1.c Present an improvisation *(glossary)*, arrangement *(glossary)*, or composition *(glossary)*. Identify the use of selected elements of music *(glossary)*.	FA 8.4.1.d Present an improvisation *(glossary)*, arrangement *(glossary)*, or original composition *(glossary)*. Explain how elements of music *(glossary)* in the student creation are used to communicate expressive content (e.g., aurally, visually, electronically).	FA 12.4.1.d Present an improvisation *(glossary)*, arrangement *(glossary)*, or original composition *(glossary)* that conveys mood through craftsmanship. Explain how elements of music *(glossary)* in the student creation are used to communicate expressive content (e.g., aurally, visually, electronically) and evaluate the effectiveness of their use.
	Connect	FA 2.4.1.d Connect music to personal experience through creating.	FA 5.4.1.d Connect music to historical and cultural contexts and the arts *(glossary)* through creating.	FA 8.4.1.e Connect music to historical and cultural contexts, the arts *(glossary)*, and other disciplines through creating.	FA 12.4.1.e Connect music to historical and cultural contexts, the arts *(glossary)*, other disciplines, and life experience through creating.

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April 13, 2015

Nebraska K-12 Fine Arts Standards: Music

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Music: Students will develop and apply knowledge and skills to create, perform, and respond to music, making connections to human experiences.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Perform	Select/ Analyze/Interpret	**FA 2.4.2 Students will sing and/or play instruments to a variety of music that includes music elements** *(glossary)* **of rhythm, pitch, dynamics, and form.**	**FA 5.4.2 Students will sing and/or play instruments to a variety of music that incorporates multiple elements of music** *(glossary)***.**	**FA 8.4.2 Students will sing and/or play, independently and/or with others, a variety of music genres** *(glossary)* **and styles** *(glossary)* **(using technical accuracy and expression.**	**FA 12.4.2 Students will sing and/or play, independently and/or with others, a variety of music genres** *(glossary)* **and styles** *(glossary)* **using technical accuracy and expression, and synthesize feedback from various sources to evaluate performance.**
	Select/ Analyze/Interpret	FA 2.4.2.a Recognize music elements *(glossary)* (i.e., rhythm, pitch, dynamics, form), purpose, and context of selected pieces.	FA 5.4.2.a Identify expressive characteristics and components of technique, purpose, and context of selected pieces (e.g., dynamics, tempo).	FA 8.4.2.a Discuss expressive characteristics and components of technique, function, and context of selected pieces (e.g., phrasing, articulation *(glossary)*/diction).	FA 12.4.2.a Analyze and interpret expressive characteristics and components of technique, function, and context of selected pieces (e.g., timbre *(glossary)*, texture *(glossary)*).
	Rehearse/ Evaluate/Refine	FA 2.4.2.b Acquire music performance skills (e.g., posture, technique, reading music) with teacher guidance.	FA 5.4.2.b Develop and refine music performance skills (e.g., posture, technique, reading music) using teacher and peer feedback.	FA 8.4.2.b Develop and refine solo/ensemble performance skills (e.g., posture, technique, reading music) using guided self-evaluation and feedback from others.	FA 12.4.2.b Develop and refine solo/ensemble performance skills evaluation (e.g., posture, technique, reading music) using self-evaluation and feedback from others.
	Present	FA 2.4.2.c Perform (formally or informally) music using correct rhythm, pitch, and dynamics. Demonstrate appropriate performance expectations *(glossary)*.	FA 5.4.2.c Perform (formally or informally) music using correct posture, breath control, rhythm, pitch, and dynamics. Demonstrate appropriate performance expectations *(glossary)*.	FA 8.4.2.c Perform (formally or informally) music of increasing difficulty using proper tone quality, phrasing, dynamics, and articulation *(glossary)*. Demonstrate appropriate performance expectations *(glossary)*.	FA 12.4.2.c Perform (formally or informally) music of greater complexity using accurate intonation, expression, and stylistically correct interpretation of phrasing, dynamics, and articulation *(glossary)*. Demonstrate appropriate performance expectations *(glossary)*.
	Connect	FA 2.4.2.d Connect music to personal experience through performing.	FA 5.4.2.d Connect music to historical and cultural contexts and the arts *(glossary)* through performing.	FA 8.4.2.d Connect music to historical and cultural contexts, the arts *(glossary)*, and other disciplines through performing.	FA 12.4.2.d Connect music to historical and cultural contexts, the arts *(glossary)*, other disciplines, and life experience through performing.

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April 13, 2015

Nebraska K-12 Fine Arts Standards: Music

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Music: Students will develop and apply knowledge and skills to create, perform, and respond to music, making connections to human experiences.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Respond		**FA 2.4.3 Students will recognize and describe elements of music *(glossary)* to demonstrate how music makes them feel (impact of music).**	**FA 5.4.3 Students will identify and describe elements of music *(glossary)* to discern how music is appropriate for specific purposes/settings (intent of music).**	**FA 8.4.3 Students will examine and evaluate elements of music *(glossary)* to explain how music conveys mood or context (affect of music).**	**FA 12.4.3 Students will analyze and evaluate how music elicits intended responses (personal response to music).**
	Select	FA 2.4.3.a Experience music from a variety of familiar and unfamiliar sources.	FA 5.4.3.a Indicate music selections that students prefer to experience for specific purposes/settings.	FA 8.4.3.a Select appropriate music of contrasting styles *(glossary)* to listen to or perform.	FA 12.4.3.a Select appropriate music in contrasting styles *(glossary)* to listen to or perform with the audience in mind.
	Analyze/Interpret	FA 2.4.3.b Recognize and demonstrate how elements of music *(glossary)* are used by a performer or creator.	FA 5.4.3.b Identify and describe how elements of music *(glossary)* are used by a performer or creator.	FA 8.4.3.b Analyze and explain how the performer/creator uses composition *(glossary)* and performance characteristics (e.g., dynamics, phrasing) to convey expressive intent.	FA 12.4.3.b Analyze and evaluate how the performer/creator uses composition *(glossary)* and performance characteristics (e.g., form, style *(glossary)*) to convey expressive intent.
	Evaluate	FA 2.4.3.c Express ideas and opinions about a music selection.	FA 5.4.3.c Examine music performances using elements of music *(glossary)*, context, and criteria (e.g., mood, interest) generated by student/teacher.	FA 8.4.3.c Choose appropriate criteria (e.g., dynamics, tone quality) to critique expressiveness and effectiveness of a performance or composition *(glossary)* with teacher guidance. Work independently or with others.	FA 12.4.3.c Independently choose appropriate criteria (e.g., texture *(glossary)*, phrasing) to critique expressiveness and effectiveness of a performance/composition *(glossary)*.
	Connect	FA 2.4.3.d Connect music to personal experience through responding.	FA 5.4.3.d Connect music to historical and cultural contexts and the arts *(glossary)* through responding.	FA 8.4.3.d Connect music to historical and cultural contexts, the arts *(glossary)*, and other disciplines through responding.	FA 12.4.3.d Connect music to historical and cultural contexts, the arts *(glossary)*, other disciplines, and life experience through responding.

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April 13, 2015

Nebraska K-12 Fine Arts Standards: Media Arts

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Media Arts: Students will develop knowledge and skills of current and emerging processes, techniques, and applications used in the creation of media arts as a means of expressing human experience.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Create		**FA 2.1.1 Students will explore creative processes and techniques in media arts.**	**FA 5.1.1 Students will demonstrate understanding of processes, techniques, and applications in media arts.**	**FA 8.1.1 Students will utilize processes, techniques, and application through the creation of media arts.**	**FA 12.1.1 Students will analyze and synthesize processes, techniques, and applications in media arts through the creation of media arts.**
	Conceive	FA 2.1.1.a Share imaginative ways that media arts can be used to communicate a narrative, experience, or idea (e.g., movie, podcast *(glossary)*, digital art).	FA 5.1.1.a Generate ideas for stories, events, or experiences that can be the basis of content for media arts (e.g., brainstorming, role-playing, discussion).	FA 8.1.1.a Identify artistic challenges that exist in the process of creating media arts and discover ways to implement possible solutions.	FA 12.1.1.a Engage in pre-production processes to prepare content and systems for production in media arts (e.g., scripting, storyboarding *(glossary)*, choreographing).
	Develop	FA 2.1.1.b Determine the steps, vocabulary, and the resources necessary to create media arts.	FA 5.1.1.b Develop a process with timelines and roles using steps, vocabulary, and resources in creating media arts (e.g., storyboard *(glossary)*).	FA 8.1.1.b Expand media arts vocabulary along with elements and principles of design in the creative process.	FA 12.1.1.b Apply media arts vocabulary along with elements and principles of design in the creative process.
	Innovate	FA 2.1.1.c Explore various editing tools on existing media to create media arts (e.g., capture, copy, paste).	FA 5.1.1.c Experiment with multiple strategies to combine and adapt media arts formats, ideas, and processes (e.g., editing).	FA 8.1.1.c Utilize available tools, techniques, and conventions in the creation of media arts.	FA 12.1.1.c Develop strategies, processes, and plans for creating work in media arts that reflect understanding of multiple resources and media.
	Duplicate	FA 2.1.1.d Introduce understanding of, and respect for, the accepted procedures regarding the responsible care of media arts equipment and materials.	FA 5.1.1.d Reinforce understanding of, and respect for, the accepted procedures regarding the responsible care of media arts equipment and materials.	FA 8.1.1.d Demonstrate understanding of, and respect for, the accepted procedures regarding the responsible care of media arts equipment and materials.	FA 12.1.1.d Demonstrate understanding of, and respect for, the accepted procedures regarding the responsible care of media arts equipment and materials.

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Nebraska K-12 Fine Arts Standards: Media Arts

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Media Arts: Students will develop knowledge and skills of current and emerging processes, techniques, and applications used in the creation of media arts as a means of expressing human experience.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Present		**FA 2.1.2 Students will explore ways to communicate an idea/message in media arts.**	**FA 5.1.2 Students will develop their ability to communicate an idea/message by presenting their work in media arts.**	**FA 8.1.2 Students will communicate an idea/message by presenting their work in media arts.**	**FA 12.1.2. Students will communicate an idea/message by presenting their work in media arts.**
	Construct	FA 2.1.2.a Introduce cooperation, negotiation, and communication in creating media arts (e.g., collaborative posters *(glossary)*).	FA 5.1.2.a Contribute to a collaborative project in an assigned role (e.g., leader, designer, actor, timekeeper, storyboard artist, cinematographer, director, sound editor, video editor).	FA 8.1.2.a Contribute, communicate, and edit in collaborative work, independent work, and/or or performance environment.	FA 12.1.2.a Research, organize, and integrate media arts content, processes, and aesthetic elements to convey meaning in media arts.
	Express	FA 2.1.2.b Practice manipulating media and context for personal expression in media arts productions.	FA 5.1.2.b Explore how media arts elements and context enhance overall effectiveness and expression (e.g., image, sound, light, movement, time, space).	FA 8.1.2.b Combine components of media arts to improve overall quality (e.g., tone, mood, feeling, character).	FA 12.1.2.b Refine and enhance expression through media arts, ideas, and skills over time while gathering and responding to critical feedback.
	Refine	FA 2.1.2.c Understand self and others as an audience with guided reflection. (e.g., who, what, when, where, why).	FA 5.1.2.c Construct and adapt media arts in consideration of audience and the context of the work (e.g., public service announcements *(glossary)*).	FA 8.1.2.c Utilize audience impact and response in the revision of work and planning for later work.	FA 12.1.2.c Analyze and evaluate the effectiveness of message perception to diverse audiences (e.g., age, gender, ethnicity).
	Present	FA 2.1.2.d Share or distribute media arts in a safe and appropriate venue (e.g., school website *(glossary)*, student information system).	FA 5.1.2.d Share and/or distribute media arts through a specific and/or variety of contexts (e.g., physical, virtual channels, venues, spaces, mass audiences, participants).	FA 8.1.2.d Expand opportunities for others (e.g., audience, school, community) to actively engage in the media arts (e.g., social media *(glossary)*, videos, online *(glossary)* gallery).	FA 12.1.2.d Construct, distribute, and manage works in media arts through a variety of contexts (e.g., live audiences, digital display, web *(glossary)*).

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Nebraska K-12 Fine Arts Standards: Media Arts

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Media Arts: Students will develop knowledge and skills of current and emerging processes, techniques, and applications used in the creation of media arts as a means of expressing human experience.

	Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Respond Perceive	**FA 2.1.3 Students will explore the concept of interpretation through media arts.**	**FA 5.1.3 Students will develop ability to interpret and evaluate work produced in media arts.**	**FA 8.1.3 Students will develop ability to analyze, interpret, and evaluate work produced in media arts.**	**FA 12.1.3 Students will analyze, interpret, and evaluate work produced in media arts.**
Perceive	FA 2.1.3.a Identify different elements that make up media arts and how they make us feel (e.g., background music, imaging *(glossary)*, timing).	FA 5.1.3.a Compare and contrast the elements of media arts that make it unique (e.g., background music, imaging *(glossary)*, timing, message).	FA 8.1.3.a Describe the qualities and relationships of the components in media arts as related to collective personal experiences.	FA 12.1.3.a Analyze and describe various forms, methods, styles, and qualities in media arts to reflect experience and create intention.
Interpret/Evaluate	FA 2.1.3.b Discuss how media arts experiences can shift individual understanding.	FA 5.1.3.b Justify personal and group interpretations and reactions to a variety of media arts.	FA 8.1.3.b Analyze multiple perspectives, key components, and relationships in media arts.	FA 12.1.3.b Evaluate and interpret multiple perspectives, key components, and relationships in media arts (e.g., intention, form, context).
Interpret/Evaluate	FA 2.1.3.c Identify meaning in media arts.	FA 5.1.3.c Discuss components and criteria that convey meaning in media arts.	FA 8.1.3.c Interpret and evaluate possible meanings or points of view of media arts (e.g., intention, form, context).	FA 12.1.3.c Engage in self-directed and teacher-directed critiques of media arts.

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Nebraska K-12 Fine Arts Standards: Media Arts

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K-12 Media Arts: Students will develop knowledge and skills of current and emerging processes, techniques, and applications used in the creation of media arts as a means of expressing human experience.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Connect		**FA 2.1.4 Students will explore personal and cultural connections through media arts.**	**FA 5.1.4 Students will identify personal, cultural, and historical connections through media arts.**	**FA 8.1.4 Students will examine personal, cultural, historical, and cross-disciplinary connections through media arts.**	**FA 12.1.4 Students will analyze and integrate personal and global connections through media arts.**
	Inquire	FA 2.1.4.a Investigate media arts connections to school, community, and everyday life (e.g., websites, advertising *(glossary)*).	FA 5.1.4.a Examine media arts to demonstrate student interest and knowledge of self.	FA 8.1.4.a Demonstrate use of media arts to address social, cultural, or societal issues (e.g., advertising *(glossary)*, social media *(glossary)*, public service announcements *(glossary)*).	FA 12.1.4.a Use historical, cultural, aesthetic, and critical frameworks to examine the capacity of media arts to reflect, affect, and catalyze personal reflection, action, or social change.
	Interact	FA 2.1.4.b Share and discuss the characteristics of digital citizenship *(glossary)* (e.g., copyright, plagiarism *(glossary)*).	FA 5.1.4.b Demonstrate knowledge of digital citizenship *(glossary)* (e.g., copyright, plagiarism, citations, validating resources *(glossary)*).	FA 8.1.4.b Demonstrate and describe the impact of digital citizenship *(glossary)* (e.g., copyright, plagiarism, citations, validating resources *(glossary)*).	FA 12.1.4.b Apply the concepts of digital citizenship *(glossary)* in media arts (e.g., copyright, plagiarism, citations, liability, validating resources *(glossary)*).
		FA 2.1.4.c Explore use of media arts as a collaborative art form to communicate information, experiences, or ideas to others.	FA 5.1.4.c Discuss and determine benefits and challenges of incorporating various ideas when creating or engaging with media arts.	FA 8.1.4.c Identify and incorporate personal or collective experiences, perspectives, and ideas of others through media arts.	FA 12.1.4.c Incorporate and analyze personal or collective experiences, perspectives, and ideas of others in media arts.
	Synthesize	FA 2.1.4.d Identify the importance of media arts as a learning tool.	FA 5.1.4.d Share the importance of media arts as a learning tool and explore potential careers.	FA 8.1.4.d Examine careers in media arts and lifelong learning opportunities.	FA 12.1.4.d Evaluate the necessary training and lifelong learning skills for careers in media arts.

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Nebraska K-12 Fine Arts Standards: Visual Arts

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Visual Arts: Students will develop and apply ideas, knowledge, and skills to create, present, respond to, and connect art with the human experience.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Create - Art to generate ideas		**FA 2.2.1 Students will use the creative process** *(glossary)* **to make works of art with a variety of materials** *(glossary)***.**	**FA 5.2.1 Students will use the creative process** *(glossary)* **to make works of art exploring subjects and themes** *(glossary)* **with a variety of materials** *(glossary)***.**	**FA 8.2.1 Students will use the creative process** *(glossary)* **to investigate and communicate personal voice in artwork.**	**FA 12.2.1 Students will use the creative process** *(glossary)* **to formulate a plan and implement aesthetic** *(glossary)* **choices in artwork.**
	Plan/ Material	FA 2.2.1.a Experiment and explore ideas and materials *(glossary)* (e.g., 2D, 3D).	FA 5.2.1.a Develop ideas using a variety of materials *(glossary)*.	FA 8.2.1.a Investigate ideas and materials *(glossary)* to demonstrate planning and refining.	FA 12.2.1.a Analyze multiple ideas and materials *(glossary)* to demonstrate planning and refining.
	Imagine/ Artistic Voice	FA 2.2.1.b Create artworks that express unique student interpretation.	FA 5.2.1.b Use observation, imagination and interpretation in creating artworks that reflect a variety of styles, themes, *(glossary)* and subjects.	FA 8.2.1.b Recognize personal voice and make stylistic choices to reflect personal identity.	FA 12.2.1.b Create and communicate a personal voice, with intention, through a body of work.
	Aesthetic Experience	FA 2.2.1.c Explore and experience the properties of various art media *(glossary)* through senses and emotions.	FA 5.2.1.c Demonstrate the connections between sensory experience *(glossary)* and expressing emotion.	FA 8.2.1.c Engage in the sensory experience *(glossary)* and relate it to making expressive artwork.	FA 12.2.1.c Engage in making art to communicate and connect aesthetic theories *(glossary)* to self-expression (e.g., imitationalism *(glossary)*, expressionism *(glossary)*, institutionalism *(glossary)*, instrumentalism *(glossary)*, formalism *(glossary)*, contextualism *(glossary)*).
	Elements/ Principles	FA 2.2.1.d Explore elements of art and principles *(glossary)* of design to brainstorm visual possibilities. (e.g., use color and shape to create pattern).	FA 5.2.1.d Identify and use elements of art and principles of design *(glossary)* to brainstorm visual possibilities (e.g., create symmetrical and asymmetrical balance using line and shape).	FA 8.2.1.d Investigate and apply relationships between elements of art and principles of design *(glossary)* to brainstorm visual possibilities (e.g., consider a variety of images and determine how line and value create emphasis in art).	FA 12.2.1.d Demonstrate and communicate understanding of relationships between elements of art and principles of design *(glossary)* by developing multiple solutions to a visual problem.
	Process/ Craftsmanship	FA 2.2.1.e Explore various techniques, skills, and the importance of craftsmanship/workmanship *(glossary)* (e.g., properly hold scissors, while turning paper, to create a well-defined shape).	FA 5.2.1.e Apply various techniques to develop craftsmanship *(glossary)* skills (e.g., use cutting and gluing techniques to produce clean edges without visible glue).	FA 8.2.1.e Investigate and demonstrate the relationship between technique, skill, and craftsmanship *(glossary)*.	FA 12.2.1.e Synthesize knowledge of relationships between advanced technique, skill, and craftsmanship *(glossary)*.
		FA 2.2.1.f Demonstrate respect for accepted procedures regarding responsible care of equipment and materials *(glossary)*.	FA 5.2.1.f Demonstrate respect for accepted procedures regarding responsible care of equipment and materials *(glossary)*.	FA 8.2.1.f Demonstrate respect for accepted procedures regarding responsible care of equipment and materials *(glossary)*.	FA 12.2.1.f Demonstrate respect for accepted procedures regarding responsible care of equipment and materials *(glossary)*.

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Nebraska K-12 Fine Arts Standards: Visual Arts

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Visual Arts: Students will develop and apply ideas, knowledge, and skills to create, present, respond to, and connect art with the human experience.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Present –Art to communicate ideas, process, and product.		**FA 2.2.2 Students will explore basic presentation methods and purposes.**	**FA 5.2.2 Students will develop presentation skills to communicate meaning.**	**FA 8.2.2 Students will understand and apply their knowledge of a variety of presentation and communication techniques.**	**FA 12.2.2 Students will integrate and apply presentation knowledge into life experiences.**
	Intent	FA 2.2.2.a Present an artist statement *(glossary)* through formal or informal communication (e.g., written, verbal).	FA 5.2.2.a Communicate artistic statements *(glossary)* using art terminology (e.g., product, process).	FA 8.2.2.a Analyze and present reflections of personal growth in an artist statement *(glossary)*.	FA 12.2.2.a Design a personal artist statement *(glossary)* by choosing from a variety of methods (e.g., poetry, multimedia).
	Selection	FA 2.2.2.b Select a work of art for display.	FA 5.2.2.b Apply basic art presentation skills in a collaborative group display.	FA 8.2.2.b Analyze, individually and collaboratively, the selection of art collections, displays, and presentations.	FA 12.2.2.b Create a portfolio *(glossary)*, digital collection *(glossary)*, or community display in a professional manner.
	Presentation Venue	FA 2.2.2.c Communicate a variety of different venues *(glossary)* to display art (e.g., describe or dramatize to an audience).	FA 5.2.2.c Examine how the process of collecting and displaying artwork varies depending on the purpose (e.g., cultivate awareness and appreciation of ideas, beliefs, experiences).	FA 8.2.2.c Explore how the meaning of art can be affected by the presentation mode or venue *(glossary)* (e.g., reproduction, digital, social media *(glossary)*, or original museum/gallery experience).	FA 12.2.2.c Compare and contrast the effectiveness of a presentation venue *(glossary)* and how it affects the artist, artwork, and audience (e.g., reproduction, digital, social media *(glossary)*, museum setting, gallery experience).

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Nebraska K-12 Fine Arts Standards: Visual Arts

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K-12 Visual Arts: Students will develop and apply ideas, knowledge, and skills to create, present, respond to, and connect art with the human experience.

		Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Respond – to understand and appreciate ideas		**FA 2.2.3 Students will explore the critical process** *(glossary)* **to respond to works of art, learning about themselves and others.**	**FA 5.2.3 Students will use the critical process** *(glossary)* **to examine works of art, learning about themselves and cultures.**	**FA 8.2.3 Students will use the critical process** *(glossary)* **to compare and contrast multiple works of art, learning about themselves in the world.**	**FA 12.2.3 Students will use the critical process** *(glossary)* **to develop and defend a logical argument supporting a contextual response to a work of art.**
	Describe	FA 2.2.3.a Identify and describe a piece of art (e.g., subject matter *(glossary)*, use of color).	FA 5.2.3.a Identify and describe use of media *(glossary)* (e.g., paint, clay, collage) and techniques to create subject matter *(glossary)*, visual elements *(glossary)* and mood.	FA 8.2.3.a Identify and describe themes *(glossary)* and styles in works of art.	FA 12.2.3.a Identify and describe works of art that reveal different ideas (e.g., cultures, individuals).
	Analyze	FA 2.2.3.b Identify use of elements and principles *(glossary)* in works of art (e.g., recognize use of pattern, symmetry).	FA 5.2.3.b Categorize elements and principles *(glossary)* in works of art (e.g., group works of art by the use of line, shape, balance).	FA 8.2.3.b Compare and contrast works of art using elements and principles *(glossary)* (e.g., themes *(glossary)*, styles, cultures).	FA 12.2.3.b Formulate a rationale addressing use of elements and principles *(glossary)* in a work of art.
	Interpret	FA 2.2.3.c Interpret mood or feeling in a work of art.	FA 5.2.3.c Interpret the message communicated by a work of art, using knowledge of visual elements *(glossary)*, subject matter *(glossary)*, and mood.	FA 8.2.3.c Compare and contrast various interpretations of themes *(glossary)*, styles, and mood.	FA 12.2.3.c Interpret and explain expressive qualities of artistic styles *(glossary)* and movements (e.g., contemporary/pop cultural vs. historical art movements).
	Evaluate	FA 2.2.3.d Articulate personal artistic choice and ideas (e.g., "I like this because...," "I chose this because...").	FA 5.2.3.d Compare personal interpretation of a work of art with the interpretations of others.	FA 8.2.3.d Explain why a work of art can evoke different interpretations and how artwork is interpreted and evaluated by the way it is displayed or presented.	FA 12.2.3.d Critique and defend how aesthetic *(glossary)* choices impact the visual image and/or intended message.

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Nebraska K-12 Fine Arts Standards: Visual Arts

(Approved by the Nebraska State Board of Education March 4, 2014)

K-12 Visual Arts: Students will develop and apply ideas, knowledge, and skills to create, present, respond to, and connect art with the human experience.

	Grades K-2	Grades 3-5	Grades 6-8	Grades 9-12
Connect - Individual perspective and identity through the study of art Artist Identity Time and Place Purpose and Function	**FA 2.2.4 Students will identify contemporary, historical, and cultural context in art and life.**	**FA 5.2.4 Students will examine contemporary, historical, and cultural context in art and life.**	**FA 8.2.4 Students will examine the significance of art in contemporary, historical, and cultural context in art and life.**	**FA 12.2.4 Students will synthesize understanding of contemporary, historical, and cultural context in art and life.**
	FA 2.2.4.a Communicate that "I can be an artist."	FA 5.2.4.a Identify ways that artists influence lives and communities.	FA 8.2.4.a Students can identify and demonstrate the role of an artist and explore art-related career opportunities.	FA 12.2.4.a Investigate how artists define, shape, and empower their lives (e.g., personal life, lifelong opportunities, careers).
	FA 2.2.4.b Identify examples of how humans have always made art.	FA 5.2.4.b Compare and contrast works of art from a variety of contemporary, historical, and cultural contexts.	FA 8.2.4.b Investigate and classify works of art from a variety of contemporary, historical, and cultural contexts.	FA 12.2.4.b Analyze and interpret works of art from a variety of contemporary, historical, cultural contexts, time periods, and cultural settings.
	FA 2.2.4.c Communicate that works of art are made for different purposes.	FA 5.2.4.c Identify and discuss purpose and function of different art forms (e.g., "is this object a sculpture, bowl, or decoration?").	FA 8.2.4.c Compare and contrast the purpose and function of different art forms. (e.g., artifacts *(glossary)* vs. fine art).	FA 12.2.4.c Synthesize how the purpose and function of art reveals aesthetic theory *(glossary)* (e.g., political, social, cultural, personal).
	FA 2.2.4.d Identify how images and objects are used to convey a story, familiar experience, or connection to the world.	FA 5.2.4.d Explore how images and objects are used to convey a story, familiar experience, or connection to the world.	FA 8.2.4.d Explain how images and objects are used to convey a story, familiar experience, or connection to the world.	FA 12.2.4.d Connect images, objects, and a personal work of art to convey a story, familiar experience, or connection to the world.

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NEBRASKA PHYSICAL EDUCATION STANDARDS

Adopted by the Nebraska State Board of Education 10/7/2016

Nebraska Physical Education Standards

Kindergarten

PE.K.1 Physical Activity Skills and Movement Patterns

PE.K.1.1 Performs locomotor skills in a variety of environments.

PE.K.1.1.a Hops, gallops, jogs, runs, walks, slides, skips, and leaps while maintaining balance. (E)

PE.K.1.1.b Jumps vertically and lands with balance. (E)

PE.K.1.1.c Jumps horizontally and lands with balance. (E)

PE.K.1.1.d Exhibits a variety of locomotor skills in rhythmic activities led by teacher. (E)

PE.K.1.2 Performs non-locomotor skills in a variety of environments.

PE.K.1.2.a Maintains momentary stillness on different bases of support. (E)

PE.K.1.2.b Forms wide, narrow, curled, and twisted body shapes. (E)

PE.K.1.2.c Rolls sideways in a narrow body shape.(E)

PE.K.1.2.d Curls and stretches the body and/or parts of the body. (E)

PE.K.1.3 Performs manipulative skills in a variety of environments.

PE.K.1.3.a Throws underhand with opposite foot forward. (E)

PE.K.1.3.b Drops a ball and catches it before it bounces twice. (E)

PE.K.1.3.c Dribbles a ball with one hand, attempting the second contact. (E)

PE.K.1.3.d Pushes a ball using the inside of the foot, sending it forward. (E)

PE.K.1.3.e Kicks a stationary ball from a stationary position, demonstrating 2 of 5 critical elements. (E)

PE.K.1.3.f Volleys a lightweight object underhand, sending it upward. (E)

PE.K.1.3.g Strikes a lightweight object with a short-handled implement. (E)

PE.K.1.3.h Completes a single jump with self-turned rope. (E)

PE.K.1.3.i Jumps a long rope with teacher-assisted turning. (E)

*PE.K.2 Movement Concepts, Strategies, an*d Tactics

PE.K.2.1 Demonstrates knowledge of movement concepts in a variety of environments.

PE.K.2.1.a Differentiates between movement in self space and general space. (E)

PE.K.2.1.b Moves to a rhythm in self space. (E)

PE.K.2.1.c Travels in straight, curved, and zig zag pathways. (E)

PE.K.2.1.d Travels at different speeds in general space. (E)

PE.K.3 Health-Related Physical Activity and Fitness

PE.K.3.1 Demonstrates the knowledge to achieve and maintain a health-enhancing level of physical activity.

PE.K.3.1.a Identifies active play opportunities outside of physical education class. (E)

PE.K.3.2 Engages in physical activity.

PE.K.3.2.a Participates in physical activity in physical education class. (E)

PE.K.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.K.3.3.a Recognizes that moving fast increases heart rate and breathing. (E)

PE.K.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.K.3.4.a Recognizes that food provides energy for physical activity. (E)

PE.K.4 Responsible Behavior

PE.K.4.1 Exhibits personal responsibility in physical activity settings.

PE.K.4.1.a Follows directions in group settings (e.g., safe behaviors, following rules, taking turns). (E)

PE.K.4.1.b Acknowledges responsibility for behavior when prompted. (E)

PE.K.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.K.4.2.a Follows instructions when prompted. (E)

PE.K.4.3 Exhibits responsible social behavior when working with others.

PE.K.4.3.a Shares equipment and space with others. (E)

PE.K.4.4 Follows rules and demonstrates proper etiquette.

PE.K.4.4.a Recognizes protocol for class activities. (E)

PE.K.4.5 Participates safely in physical activities.

PE.K.4.5.a Follows teacher directions for safe participation and proper use of equipment with minimal reminders. (E)

PE.K.5 Physical Activity Benefits

PE.K.5.1 Recognizes the benefits of physical activity for health.

PE.K.5.1.a Recognizes that physical activity is important for good health. (E)

PE.K.5.2 Recognizes the benefits of physical activity for challenge.

PE.K.5.2.a Acknowledges that some physical activities are difficult/challenging. (E)

PE.K.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.K.5.3.a Identifies physical activities that are enjoyable. (E)

PE.K.5.3.b Discusses the enjoyment of playing with friends. (E)

PE.1.1 Physical Activity Skills and Movement Patterns

PE.1.1.1 Performs locomotor skills in a variety of environments.

PE.1.1.1.a Hops, gallops, side slides, and walks in a mature pattern. (M)

PE.1.1.1.b Exhibits 2 of 5 critical elements for jumping horizontally using two-foot take-off and landing. (E)

PE.1.1.1.c Exhibits 2 of 5 critical elements for jumping vertically using two-foot take-off and landing. (E)

PE.1.1.1.d Demonstrates a variety of locomotor and non-locomotor skills in teacher-designed rhythmic activities. (E)

PE.1.1.2 Performs non-locomotor skills in a variety of environments.

PE.1.1.2.a Maintains stillness on different bases of support with different body shapes. (E)

PE.1.1.2.b Transfers weight from one body part to another in self-space. (E)

PE.1.1.2.c Rolls with either a narrow or curled body shape. (E)

PE.1.1.2.d Curls, stretches, twists, and bends the body and/or parts of the body. (E)

PE.1.1.3 Performs manipulative skills in a variety of environments.

PE.1.1.3.a Throws underhand, demonstrating 2 of 5 critical elements. (E)

PE.1.1.3.b Throws overhand with opposite foot forward. (E)

PE.1.1.3.c Catches various sizes of objects self-tossed or tossed by an accurate thrower. (E)

PE.1.1.3.d Dribbles continuously in self-space using the preferred hand. (E)

PE.1.1.3.e Pushes or dribbles a ball using the inside of the foot while walking in general space. (E)

PE.1.1.3.f Approaches a stationary ball and kicks it forward, demonstrating 2 of 5 critical elements. (E)

PE.1.1.3.g Volleys an object underhand with an open palm, sending it upward. (E)

PE.1.1.3.h Volleys a lightweight object overhead sending it upward over the head. (E)

PE.1.1.3.i Strikes an object with a short-handled implement, sending it upward. (E)

PE.1.1.3.j Strikes a ball with a bat off a tee or cone. (E)

PE.1.1.3.k Jumps consecutively forward and backward using a self-turned rope with a mature pattern. (E)

PE.1.1.3.l Jumps a long rope 3 times consecutively with teacher-assisted turning. (E)

PE.1.2 Movement Concepts, Strategies, and Tactics

PE.1.2.1 Demonstrates knowledge of movement concepts in a variety of environments.

PE.1.2.1.a Moves in self-space and general space in response to a designated rhythm. (E)

PE.1.2.1.b Travels at low, middle, and high levels. (E)

PE.1.2.1.c Travels over, under, around, and through a variety of objects. (E)

PE.1.2.1.d Differentiates between fast and slow speeds. (E)

PE.1.2.1.e Differentiates between strong and light forces. (E)

PE.1.2.1.f Moves in various directions (forward, backward, sideways) while traveling in general space. (E)

PE.1.3 Health-Related Physical Activity and Fitness

PE.1.3.1 Demonstrates the knowledge to achieve and maintain a health-enhancing level of physical activity.

PE.1.3.1.a Discusses the benefits of being physically active in structured (e.g., physical education class) or unstructured (e.g., recess) situations. (E)

PE.1.3.2 Engages in physical activity.

PE.1.3.2.a Engages in physical activity in physical education class. (E)

PE.1.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.1.3.3.a Identifies the heart as a muscle that grows stronger with exercise, active play, and physical activity. (E)

PE.1.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.1.3.4.a Differentiates between healthy and unhealthy foods. (E)

PE.1.4 Responsible Behavior

PE.1.4.1 Exhibits personal responsibility in physical activity settings.

PE.1.4.1.a Uses equipment and space appropriately. (E)

PE.1.4.1.b Follows the rules and procedures of the learning environment. (E)

PE.1.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.1.4.2.a Responds appropriately to positive feedback from the teacher. (M)

PE.1 4.3 Exhibits responsible social behavior when working with others.

PE.1.4.3.a Works with others in a variety of class environments (e.g., small and large groups). (E)

PE.1.4.4 Follows rules and demonstrates proper etiquette.

PE.1.4.4.a Displays the established protocol for class activities. (E)

PE.1.4.5 Participates safely in physical activities.

PE.1.4.5.a Follows teacher directions for safe participation and proper use of equipment without reminders. (E)

PE.1.5 Physical Activity Benefits

PE.1.5.1 Recognizes the benefits of physical activity for health.

PE.1.5.1.a Identifies physical activity as a component of good health. (E)

PE.1.5.2 Recognizes the benefits of physical activity for challenge.

PE.1.5.2.a Accepts that challenge in physical activities can lead to success. (E)

PE.1.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.1.5.3.a Describes positive feelings that result from participating in physical activities. (E)

PE.1.5.3.b Discusses personal reasons for enjoying physical activities. (E)

PE.2.1 Physical Activity Skills and Movement Patterns

PE.2.1.1 Performs locomotor skills in a variety of environments.

PE.2.1.1.a Applies hopping, galloping, and side sliding in a variety of activity environments. (A)

PE.2.1.1.b Skips, runs, and jogs in mature patterns. (M)

PE.2.1.1.c Exhibits 4 of 5 critical elements for jumping horizontally using a variety of two-foot and one-foot take-offs and landings. (E)

PE.2.1.1.d Exhibits 4 of 5 critical elements for jumping vertically using a variety of two-foot and one-foot take-offs and landings. (E)

PE.2.1.1.e Demonstrates locomotor and non-locomotor skills in teacher-designed or student-designed rhythmic activities. (E)

PE.2.1.2 Performs non-locomotor skills in a variety of environments.

PE.2.1.2.a Balances on different bases of support, combining levels and shapes. (E)

PE.2.1.2.b Transfers weight to different body parts/bases of support for balance and/or for travel. (E)

PE.2.1.2.c Rolls in different directions with either a narrow or curled body shape. (E)

PE.2.1.2.d Differentiates among curling, stretching, twisting, and bending. (M)

PE.2.1.2.e Combines balances and weight transfers into a 3-part sequence. (E)

PE.2.1.3 Performs manipulative skills in a variety of environments.

PE.2.1.3.a Throws underhand using a mature pattern. (M)

PE.2.1.3.b Throws overhand demonstrating 2 of 5 critical elements. (E)

PE.2.1.3.c Passes with hands to a stationary partner. (E)

PE.2.1.3.d Catches a self-tossed or well-thrown large ball with hands using 2 of 5 critical elements. (E)

PE.2.1.3.e Dribbles continuously in self space with preferred hand, demonstrating 3 of 5 critical elements. (M)

PE.2.1.3.f Dribbles using preferred hand while walking in general space. (E)

PE.2.1.3.g Dribbles with feet in general space with control of ball and body. (E)

PE.2.1.3.h Uses a continuous running approach and kicks a moving ball, demonstrating 3 of 5 critical elements. (E)

PE.2.1.3.i Volleys an object underhand sending it upward with consecutive hits using 3 of 5 critical elements. (E)

PE.2.1.3.j Volleys a lightweight object overhead sending it upward with consecutive hits. (E)

PE.2.1.3.k Strikes an object with a short-handled implement upward, using consecutive hits. (E)

PE.2.1.3.l Strikes a ball with a bat off a tee or cone using correct grip and proper body orientation. (E)

PE.2.1.3.m Jumps consecutively forward and backward using a self-turned rope with a mature pattern. (M)

PE.2.1.3.n Jumps a long rope 5 times consecutively with student turners. (E)

PE.2.2 Movement Concepts, Strategies, and Tactics

PE.2.2.1 Demonstrates knowledge of movement concepts in a variety of environments.

PE.2.2.1.a Combines locomotor skills in general space to a rhythm. (E)

PE.2.2.1.b Combines shapes (e.g., narrow, wide, twisted, curved, asymmetrical and symmetrical) levels and pathways into simple travel, rhythmic, and tumbling sequences. (E)

PE.2.2.1.c Varies speed and force with gradual increases and decreases. (E)

PE.2.3 Health-Related Physical Activity and Fitness

PE.2.3.1 Demonstrates the knowledge to achieve and maintain a health-enhancing level of physical activity.

PE.2.3.1.a Describes different opportunities outside of physical education class (e.g., recess, before and after school, at home, in the community, with friends, with family) to use large-motor and/or manipulative physical activities. (E)

PE.2.3.2 Engages in physical activity.

PE.2.3.2.a Engages in physical activity in physical education class in response to instruction and practice. (E)

PE.2.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.2.3.3.a Recognizes the use of own body weight as resistance (e.g., plank, animal walks) for developing strength. (E)

PE.2.3.3.b States the purpose of a warm-up and cool-down led by the teacher. (E)

PE.2.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.2.3.4.a Recognizes the impact of nutrition on physical activity. (E)

PE.2.4 Responsible Behavior

PE.2.4.1 Exhibits personal responsibility in physical activity settings.

PE.2.4.1.a Practices skills with minimal teacher prompting. (E)

PE.2.4.1.b Accepts responsibility for class expectations with behavior and performance. (E)

PE.2.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.2.4.2.a Accepts positive corrective feedback from the teacher. (M)

PE.2.4.3 Exhibits responsible social behavior when working with others.

PE.2.4.3.a Works with a partner with minimal teacher prompting. (E)

PE.2.4.4 Follows rules and demonstrates proper etiquette.

PE.2.4.4.a Recognizes the importance of rules and etiquette in teacher-designed physical activities. (E)

PE.2.4.5 Participates safely in physical activities.

PE.2.4.5.a Works independently and safely with or without equipment. (E)

PE.2.5 Physical Activity Benefits

PE.2.5.1 Recognizes the benefits of physical activity for health.

PE.2.5.1.a Recognizes the relationship between physical activity and good health. (E)

PE.2.5.2 Recognizes the benefits of physical activity for challenge.

PE.5.4.2.a Compares different physical activities that brings challenge and promotes confidence. (E)

PE.2.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.2.5.3.a Identifies physical activities that provide self-expression. (E)

PE.3.1 Physical Activity Skills and Movement Patterns

PE.3.1.1 Performs locomotor skills in a variety of environments.

PE.3.1.1.a Leaps using a mature pattern. (M)

PE.3.1.1.b Differentiates between sprinting and running. (A)

PE.3.1.1.c Jumps horizontally and lands from a stationary position using a mature pattern. (M)

PE.3.1.1.d Jumps vertically and lands from a stationary position using a mature pattern. (M)

PE.3.1.1.e Performs teacher-selected and developmentally appropriate dance steps. (M)

PE.3.1.1.f Performs a sequence of locomotor skills smoothly. (E)

PE.3.1.2 Performs non-locomotor skills in a variety of environments.

PE.3.1.2.a Balances on different bases of support, combining levels and shapes. (M)

PE.3.1.2.b Transfers weight from feet to hands for momentary weight support. (M)

PE.3.1.2.c Rolls in a variety of shapes, levels, and directions. (M)

PE.3.1.2.d Transitions from one balance to another with curling, stretching, twisting, and bending actions. (M)

PE.3.1.2.e Combines locomotor and non-locomotor skills and movement concepts (e.g., levels, shapes, extensions, pathways, force, time, flow) to create and perform a dance individually. (E)

PE.3.1.2.f Combines balance and weight transfers with movement concepts to create and perform a dance. (E)

PE.3.1.3 Performs manipulative skills in a variety of environments.

PE.3.1.3.a Throws underhand to a partner or target using a mature pattern. (M)

PE.3.1.3.b Demonstrates 3 of 5 critical elements of an overhand throw in a non-dynamic environment for distance and/or force. (E)

PE.3.1.3.c Passes to a stationary partner, at various distances. (E)

PE.3.1.3.d Catches a tossed ball from a partner demonstrating 4 of 5 critical elements. (E)

PE.3.1.3.e Dribbles, with preferred hand, and travels in general space, at slow to moderate jogging speed, with control of ball and body. (E)

PE.3.1.3.f Dribbles with feet in general space at slow to moderate jogging speed with control of ball and body. (E)

PE.3.1.3.g Receives a ball from a stationary partner, cushioning on reception before returning the pass. (E)

PE.3.1.3.h Performs a continuous running approach and kicks a ball along the ground demonstrating 4 of 5 critical elements. (E)

PE.3.1.3.i Performs a continuous running approach and kicks a ball in the air, demonstrating 4 of 5 critical elements. (E)

PE.3.1.3.j Kicks a stationary ball for accuracy using a continuous running approach. (E)

PE.3.1.3.k Punts a ball demonstrating 4 of 5 critical elements. (E)

PE.3.1.3.l Volleys an object with an underhand or a sidearm striking pattern, sending it forward over a net, to the wall, or over a line to a partner, demonstrating 4 of 5 critical elements. (E)

PE.3.1.3.m Volleys a lightweight object with a two-hand overhead pattern, sending it upward, demonstrating 3 of 5 critical elements. (E)

PE.3.1.3.n Strikes an object with a short-handled implement (e.g., racquet, paddle) sending it forward over a low net or to a wall, demonstrating 3 of 5 critical elements. (E)

PE.3.1.3.o Strikes an object with a long-handled implement, sending it forward using proper grip (e.g., hockey stick, bat, golf club). (E)

PE.3.1.3.p Strikes a pitched ball with a bat using 3 of 5 critical elements. (E)

PE.3.1.3.q Combines traveling with dribbling, throwing, catching, and striking in teacher-designed practice tasks. (E)

PE.3.1.3.r Performs a variety of skills for long and short ropes. (E)

PE.3.1.3.s Moves in and out of a turning long rope. (M)

PE.3.2 Movement Concepts, Strategies, and Tactics

PE.3.2.1 Demonstrates knowledge of movement concepts in a variety of environments.

PE.3.2.1.a Recognizes the concept of open space in a movement context. (E)

PE.3.2.1.b Demonstrates pathways (e.g., straight, curved, zigzag), shapes, and levels, using locomotor skills in a variety of practice tasks. (E)

PE.3.2.1.c Combines speed, direction, and force with skills. (M)

PE.3.2.1.d Employs the concept of alignment in tumbling and dance. (E)

PE.3.2.1.e Employs the concept of muscular tension with balance in tumbling and dance. (E)

PE.3.2.2 Applies knowledge of strategies and tactics in a variety of environments.

PE.3.2.2.a Performs simple strategies and tactics in chasing and fleeing activities. (E)

PE.3.2.2.b Charts participation in physical activities outside physical education class. (E)

PE. 3.3 Health-Related Physical Activity and Fitness

PE.3.3.1 Demonstrates the knowledge to achieve and maintain a health-enhancing level of physical activity.

PE.3.3.1.a Identifies benefits of physical activity to enhance health. (E)

PE.3.3.2 Engages in physical activity.

PE.3.3.2.a Engages in physical activity in physical education class with teacher prompting. (E)

PE.3.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.3.3.3.a Describes the concept of fitness and provides examples of physical activity to enhance fitness. (E)

PE.3.3.3.b Recognizes the importance of warm-up and cool-down for vigorous physical activity. (E)

PE.3.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.3.3.4.a Demonstrates, with teacher direction, the health-related fitness components (e.g., push-up, curl-up, trunk lift, sit and reach). (E)

PE.3.3.4.b Identifies foods that are beneficial before and after physical activity. (E)

PE.3.4 Responsible Behavior

PE.3.4.1 Exhibits personal responsibility in physical activity settings.

PE.3.4.1.a Exhibits personal responsibility in teacher-directed activities. (M)

PE.3.4.1.b Works independently for extended periods of time. (M)

PE.3.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.3.4.2.a Accepts and implements positive corrective feedback from the teacher. (M)

PE.3.4.3 Exhibits responsible social behavior when working with others.

PE.3.4.3.a Works cooperatively with others. (M)

PE.3.4.3.b Praises others for their success in movement performance. (M)

PE.3.4.4 Follows rules and demonstrates proper etiquette.

PE.3.4.4.a Practices adherence to rules and etiquette in physical activity with peers. (E)

PE.3.4.5 Participates safely in physical activities.

PE.3.4.5.a Works independently and safely in physical activity settings. (M)

PE.3.5 Physical Activity Benefits

PE.3.5.1 Recognizes the benefits of physical activity for health.

PE.3.5.1.a Discusses the relationship between physical activity and good health. (E)

PE.3.5.2 Recognizes the benefits of physical activity for challenge.

PE.3.5.2.a Discusses the challenges of learning a new physical activity. (E)

PE.3.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.3.5.3.a Reflects on the reasons for enjoying selected physical activities. (M)

PE.3.5.4 Recognizes the benefits of physical activity for social interaction.

PE.3.5.4.a Describes the positive social interactions when engaged with others in physical activity. (E)

PE.4.1 Physical Activity Skills and Movement Patterns

PE.4.1.1 Performs locomotor skills in a variety of environments.

PE.4.1.1.a Performs various locomotor skills in different environments including rhythmic activities and tumbling. (A)

PE.4.1.1.b Demonstrates the mature pattern for running distance. (A)

PE.4.1.1.c Jumps horizontally and lands using a mature pattern specific to tumbling. (A)

PE.4.1.1.d Jumps vertically and lands using a mature pattern specific to tumbling. (A)

PE.4.1.1.e Combines locomotor movement patterns and dance steps to create and perform an original dance. (M)

PE.4.1.1.f Demonstrates the combination of locomotor skills with manipulative skills (e.g., dribbling, throwing, catching, and striking). (M)

PE.4.1.2 Performs non-locomotor skills in a variety of environments.

PE.4.1.2.a Balances in an inverted position with stillness and supportive base. (M)

PE.4.1.2.b Transfers weight from feet to hands, varying speed and using large extensions (e.g., mule kick, handstand, cartwheel). (M)

PE.4.1.2.c Applies rolling in a tumbling sequence. (A)

PE.4.1.2.d Transitions from one balance to another with curling, stretching, twisting, and bending actions in a tumbling sequence. (M)

PE.4.1.2.e Combines locomotor and non-locomotor skills and movement concepts (e.g., levels, shapes, extensions, pathways, force, time, flow) to create and perform a dance with a partner. (E)

PE.4.1.2.f Combines traveling with balance and weight transfers to create a tumbling sequence. (E)

PE.4.1.3 Performs manipulative skills in a variety of environments.

PE.4.1.3.a Applies underhand throwing skills with different sizes and types of objects. (A)

PE.4.1.3.b Throws overhand using a mature pattern in a non-dynamic environment. (M)

PE.4.1.3.c Throws to a partner or target with accuracy at a designated distance. (E)

PE.4.1.3.d Passes to a moving partner, at various distances. (M)

PE.4.1.3.e Catches a thrown ball at various levels (e.g., overhand and underhand) using a mature pattern in a non-dynamic environment. (M)

PE.4.1.3.f Dribbles, with both the preferred and the non-preferred hands, in self-space using a mature pattern. (M)

PE.4.1.3.g Dribbles with feet in general space, with control of ball and body, while increasing and decreasing speed. (E)

PE.4.1.3 h Passes and receives a ball with various parts of the feet (e.g., inside, outside, top) with a stationary partner, cushioning on reception before returning the pass. (E)

PE.4.1.3.i Dribbles with hands or feet in combination with other skills (e.g., passing, receiving, shooting). (E)

PE.4.1.3.j Kicks a ball along the ground using a mature pattern. (M)

PE.4.1.3.k Kicks a ball in the air using a mature pattern. (M)

PE.4.1.3.l Punts a ball using a mature pattern. (M)

PE.4.1.3.m Volleys underhand using a mature pattern in a dynamic environment (e.g., 2-square, 4-square). (M)

PE.4.1.3.n Volleys a lightweight ball with a two-hand overhead pattern, sending it upward, demonstrating 4 of 5 critical elements. (E)

PE.4.1.3.o Strikes an object with a short-handled implement (e.g., racquet, paddle) over a net or against a wall using a mature pattern. (M)

PE.4.1.3.p Strikes an object with a short-handled implement, alternating hits with a partner over a low net or against a wall. (M)

PE.4.1.3.q Strikes an object with a long-handled implement (e.g., hockey stick, bat, golf club), demonstrating 3 of 5 critical elements. (E)

PE.4.1.3.r Strikes a pitched ball with a bat using 4 of 5 critical elements. (E)

PE.4.1.3.s Combines traveling with dribbling, throwing, catching, and striking in teacher- and/or student-designed practice tasks. (E)

PE.4.1.3.t Creates a jump rope routine with either a short or long rope. (A)

PE.4.2 Movement Concepts, Strategies, and Tactics

PE.4.2.1 Demonstrates knowledge of movement concepts in a variety of environments.

PE.4.2.1.a Demonstrates the concept of open space with combination skills involving traveling within boundaries while changing speeds (e.g., dribbling and traveling). (M)

PE.4.2.1.b Combines movement concepts with skills in small-sided practice tasks, tumbling, and dance environments. (M)

PE.4.2.1.c Applies speed and force with pacing when running. (A)

PE.4.2.1.d Applies direction and force when striking an object with a short-handled implement, sending it to a designated target. (M)

PE.4.2.1.e Applies the concept of alignment in teacher-designed tumbling and dance sequences. (M)

PE.4.2.1.f Applies the concept of muscular tension with balance in teacher-designed tumbling and dance. (M)

PE.4.2.2 Applies knowledge of strategies and tactics in a variety of environments.

PE.4.2.2.a Applies simple offensive and defensive strategies in chasing and fleeing activities. (M)

PE.4.2.2 b Recognizes the types of kicks needed for different small-sided game situations and activities. (M)

PE.4.3 Health-Related Physical Activity and Fitness

PE.4.3.1 Demonstrates the knowledge to achieve and maintain a health-enhancing level of physical activity.

PE.4.3.1.a Analyzes opportunities for participating in physical activity outside physical education class. (M)

PE.4.3.2 Engages in physical activity.

PE.4.3.2.a Engages in physical activity in physical education class without teacher prompting. (M)

PE.4.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.4.3.3.a Identifies the components of health-related fitness. (E)

PE.4.3.3.b Demonstrates warm-up and cool-down for cardio-respiratory fitness self-evaluation. (M)

PE.4.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.4.3.4.a Completes health-related fitness assessment (e.g., pre and post). (M)

PE.4.3.4.b Utilizes assessment results with teacher assistance to identify components needing maintenance and/or remediation. (E)

PE.4.3.4. c Identifies strategies for progress in remediation areas with teacher assistance. (M)

PE.4.3.4.d Discusses the importance of hydration and hydration choices for physical activities. (E)

PE.4.4 Responsible Behavior

PE.4.4.1 Exhibits personal responsibility in physical activity settings.

PE.4.4.1.a Exhibits responsible behavior in independent group situations. (M)

PE.4.4.1.b Reflects on personal and social behavior in physical activity settings. (M)

PE.4.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.4.4.2.a Listens respectfully to specific corrective feedback from peers and adults. (M)

PE.4.4.2.b Gives positive corrective feedback respectfully to peers when prompted. (E)

PE.4.4.3 Exhibits responsible social behavior when working with others.

PE.4.4.3.a Praises the movement performance of others with varying skill abilities. (M)

PE.4.4.3.b Accepts players of varying skill levels into the physical activity. (M)

PE.4.4.4 Follows rules and demonstrates proper etiquette.

PE.4.4.4.a Exhibits etiquette and adherence to rules in a variety of physical activities. (E)

PE.4.4.5 Participates safely in physical activities.

PE.4.4.5.a Works safely with peers and equipment in physical activity settings. (M)

PE.4.5 Physical Activity Benefits

PE.4.5.1 Recognizes the benefits of physical activity for health.

PE.4.5.1.a Investigates the health benefits of participation in physical activity. (M)

PE.4.5.2 Recognizes the benefits of physical activity for challenge.

PE.4.5.2.a Rates the satisfaction of participating in challenging and mastered physical activities. (M)

PE.4.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.4.5.3.a Ranks the enjoyment of participating in different physical activities. (M)

PE.4.5.4 Recognizes the benefits of physical activity for social interaction.

PE.4.5.4.a Describes and compares the positive social interactions when engaged in partner, small group, and large group physical activities. (M)

PE.5.1 Physical Activity Skills and Movement Patterns

PE.5.1.1 Performs locomotor skills in a variety of environments.

PE.5.1.1.a Combines locomotor and manipulative skills in a variety of small-sided game environments (A)

PE.5.1.1.b Paces at a variety of running distances. (A)

PE.5.1.1.c Jumps horizontally and lands in combination with other movements. (A)

PE.5.1.1.d Jumps vertically and lands in combination with other movements. (A)

PE.5.1.1.e Combines locomotor skills in cultural and/or creative dance (e.g., self and group) with correct rhythm and pattern. (A)

PE.5.1.1.f Applies the combination of locomotor and manipulative skills in small-sided practice tasks. (A)

PE.5.1.2 Performs non-locomotor skills in a variety of environments.

PE.5.1.2.a Applies the combination of balance and weight transfer in tumbling. (A)

PE.5.1.2.b Demonstrates weight transfer in tumbling. (A)

PE.5.1.2.c Applies rolling in a variety of environments (e.g., dance, games). (A)

PE.5.1.2.d Applies curling, stretching, twisting, and bending in dance and tumbling. (A)

PE.5.1.2.e Combines locomotor and non-locomotor skills and movement concepts (e.g., levels, shapes, extensions, pathways, force, time, flow) to create and perform a dance with a group. (E)

PE.5.1.2.f Combines tumbling skills with balance and weight transfers to create a tumbling sequence. (E)

PE.5.1.3 Performs manipulative skills in a variety of environments.

PE.5.1.3.a Applies underhand throwing skills with different sizes and types of objects in small-sided games. (A)

PE.5.1.3.b Throws overhand with accuracy in small-sided games. (M)

PE.5.1.3.c Passes, with both partners moving, at various distances. (A)

PE.5.1.3.d Catches a struck ball at all levels (e.g., overhand and underhand) in a non-dynamic environment. (A)

PE.5.1.3.e Catches while both partners are moving. (A)

PE.5.1.3.f Combines hand dribbling with other skills (e.g., passing, receiving, shooting) in a dynamic environment. (A)

PE.5.1.3.g Combines foot dribbling with other skills (e.g., passing, receiving, shooting) using a mature pattern. (A)

PE.5.1.3.h Passes and receives with the feet as both partners travel. (M)

PE.5.1.3.i Dribbles with hands or feet with mature patterns in a variety of small-sided games. (E)

PE.5.1.3.j Kicks in small-sided practice tasks using a mature pattern. (A)

PE.5.1.3.k Punts in small-sided practice tasks. (A)

PE.5.1.3.l Applies underhand volley in a dynamic environment using different sizes and types of balls. (A)

PE.5.1.3.m Performs a forearm pass using 3 of 5 critical elements. (E)

PE.5.1.3.n Volleys a lightweight ball, using a two-hand pattern, sending it upward to a target. (M)

PE.5.1.3.o Strikes an object consecutively with a partner, using a short-handled implement, over a net or against a wall in a dynamic environment. (A)

PE.5.1.3.p Combines striking with a long-handled implement (e.g., hockey stick, lacrosse stick) with receiving and traveling skills in practice tasks. (M)

PE.5.1.3.q Strikes a pitched ball with a bat using a mature pattern. (M)

PE.5.1.3.r Combines manipulative skills and traveling for execution to a target (e.g., scoring in soccer, hockey, basketball; receiving a pass in flag football). (M)

PE.5.1.3.s Creates a jump rope routine, with a partner or group, with either a short or long rope. (A)

PE.5.2 Movement Concepts, Strategies, and Tactics

PE.5.2.1 Demonstrates knowledge of movement concepts in a variety of environments.

PE.5.2.1.a Combines spatial concepts with locomotor and manipulative skills in a variety of small-sided games and dance. (A)

PE.5.2.1.b Combines movement concepts with skills in a variety of small-sided game environments, tumbling, and dance. (E & A)

PE.5.2.1.c Applies speed, direction, and force to strategy in small-sided games. (A)

PE.5.2.1.d Applies direction and force when striking an object with a long-handled implement, sending it to a designated target. (M)

PE.5.2.1.e Analyzes movement situations and applies movement concepts (e.g., force, direction, speed, pathways, extensions) in small-sided practice tasks. (A)

PE.5.2.1.f Applies the concept of alignment in student-designed tumbling and dance sequences. (M)

PE.5.2.1.g Applies the concepts of muscular tension with balance in student-designed tumbling and dance. (M)

PE.5.2.2 Applies knowledge of strategies and tactics in a variety of environments.

PE.5.2.2.a Applies basic offensive and defensive strategies and tactics in small-sided invasion games. (A)

PE.5.2.2.b Applies basic offensive and defensive strategies and tactics in net/wall games. (A)

PE.5.2.2.c Recognizes the types of throw, volley, or striking actions needed for different small-sided game situations and activities. (M)

PE.5.3 Health-Related Physical Activity and Fitness

PE.5.3.1 Demonstrates the knowledge to achieve and maintain a health-enhancing level of physical activity.

PE.5.3.1.a Charts and analyzes physical activity outside physical education class for fitness benefits of activities. (A)

PE.5.3.2 Engages in physical activity.

PE.5.3.2.a Engages in both teacher-directed and independent physical education class activities. (A)

PE.5.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.5.3.3.a Differentiates between skill-related and health-related fitness. (M)

PE.5.3.3.b Identifies and applies the need for warm-up and cool-down for various physical activities. (A)

PE.5.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.5.3.4.a Analyzes, with teacher assistance, results of health-related fitness assessment (e.g., pre and post), comparing results with criteria for good health. (A)

PE.5.3.4.b Designs a goal-setting plan, with teacher assistance, to address ways to use physical activity to enhance and maintain fitness. (A)

PE.5.3.4.c Analyzes the impact of food choices for physical activity, youth sports, and personal health. (M)

PE.5.4 Responsible Behavior

PE.5.4.1 Exhibits personal responsibility in physical activity settings.

PE.5.4.1.a Engages in physical activity with responsible inter-personal behavior (e.g., peer-to-peer, student-to-teacher, student-to-referee). (M)

PE.5.4.1.b Exhibits responsible behavior in a variety of physical activity contexts, environments, and facilities. (A)

PE.5.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.5.4.2.a Gives specific corrective feedback respectfully to peers. (M)

PE.5.4.3 Exhibits responsible social behavior when working with others.

PE.5.4.3.a Accepts, recognizes, and actively involves others with varying abilities in physical activities and group projects. (A)

PE.5.4.4 Follows rules and demonstrates proper etiquette.

PE.5.4.4.a Critiques the etiquette involved in various game activities. (M)

PE.5.4.5 Participates safely in physical activities.

PE.5.4.5.a Applies safety principles with age-appropriate physical activities. (A)

PE.5.5 Physical Activity Benefits

PE.5.5.1 Recognizes the benefits of physical activity for health.

PE.5.5.1.a Compares the health benefits of participating in selected physical activities. (A)

PE.5.5.2 Recognizes the benefits of physical activity for challenge.

PE.5.5.2.a Expresses the challenge of participating in a favorite physical activity. (A)

PE.5.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.5.5.3.a Analyzes different physical activities for self-expression and enjoyment. (A)

PE.5.5.4 Recognizes the benefits of physical activity for social interaction.

PE.5.5.4.a Describes the social benefits gained from participating in physical activity. (M)

PE.6.1 Physical Activity Skills and Movement Patterns

PE.6.1.1 Performs a variety of dance and rhythmic skills and activities with competency.

PE.6.1.1.a Moves to a beat or rhythm in a dance (e.g., line, folk, social, creative, world).

PE.6.1.1.b Moves to a beat in a rhythmic activity (e.g., jump rope, cup stack, dance-fitness program, plyometric exercises).

PE.6.1.2 Performs a variety of invasion and field game skills and activities with competency.

PE.6.1.2.a Throws with a mature pattern for distance, force, and speed in a variety of practice tasks (e.g., softball, basketball, football, disc golf).

PE.6.1.2.b Catches a variety of objects with a mature pattern (e.g., softball, basketball, football, Frisbee).

PE.6.1.2.c Passes an object with hands in combination with locomotor patterns and change of direction.

PE.6.1.2.d Receives object with hands in combination with locomotor patterns and change of direction.

PE.6.1.2.e Performs pivots, fakes, and jab steps correctly without defensive pressure (e.g., basketball, soccer, lacrosse, flag football).

PE.6.1.2.f Dribbles with dominant hand using a change of speed and direction without defensive pressure in a variety of practice tasks (e.g., basketball).

PE.6.1.2.g Foot-dribbles with control, changing speed and directions, in a variety of practice tasks (e.g., soccer).

PE.6.1.2.h Dribbles with an implement with control, changing speed and directions in a variety of practice tasks (e.g., floor hockey, broomball).

PE.6.1.2.i Shoots with a mature pattern appropriate to the activity (e.g., basketball, team handball, soccer).

PE.6.1.2.j Maintains defensive ready position appropriate to the activity (e.g., basketball, volleyball, soccer, softball, flag football, wrestling).

PE.6.1.3 Performs a variety of net and wall game skills and activities with competency.

PE.6.1.3.a Performs a legal underhand serve.

PE.6.1.3.b Strikes with a mature overhand pattern in non-dynamic environment (e.g., volleyball, handball, badminton, tennis).

PE.6.1.3.c Strikes with mature pattern using the forehand and backhand strokes with a short-handled implement.

PE.6.1.3.d Strikes using a forehand volley with mature pattern and control using an implement.

PE.6.1.3.e Performs overhead two-hand volley with control.PE.6.1.3.f Performs a forearm pass with a mature pattern.

PE.6.1.4 Performs a variety of target game skills and activities with competency.

PE.6.1.4.a Throws underhand with a mature pattern in activity specific tasks (e.g., soccer, softball, bowling, bocce, horseshoes).

PE.6.1.4.b Strikes, with an implement, a stationary object (e.g., croquet, golf, shuffleboard).

PE.6.1.5 Performs a variety of fielding/striking game skills and activities with competency.

PE.6.1.5.a Strikes a pitched ball with an implement with a mature pattern.

PE.6.1.5.b Catches with hands using a mature pattern, from different trajectories, using a variety of balls in varying practice tasks.

PE.6.1.6 Performs a variety of outdoor pursuits and individual performance activities with competency.

PE.6.1.6.a Demonstrates correct technique for basic skills in one self-selected outdoor activity (e.g., fishing, archery, wall climbing, geocaching, bicycling).

PE.6.1.6.b Demonstrates correct technique for basic skills in one self-selected activity (e.g., wrestling, track and field, skating, tumbling).

PE.6.2 Movement Concepts, Strategies, and Tactics

PE.6.2.1 Applies knowledge of movement concepts, strategies, and tactics in individual performance activities, dance and rhythms.

PE.6.2.1.a Varies application of force during dance or rhythmic activities.

PE.6.2.2 Applies knowledge of movement concepts, strategies, and tactics in invasion games.

PE.6.2.2.a Creates space through locomotor movements appropriate to the activity.

PE.6.2.2.b Responds with appropriate locomotor movements while transitioning between offense and defense.

PE.6.2.3 Applies knowledge of movement concepts, strategies, and tactics in net/wall games.

PE.6.2.3.a Creates space when hitting with a short-handled implement by varying force and direction.

PE.6.2.3.b Reduces offensive options for opponents by returning to midcourt position.

PE.6.2.4 Applies knowledge of movement concepts, strategies, and tactics in target games.

PE.6.2.4.a Selects appropriate shot and/or implement based on location of the object in relation to the target.

PE.6.2.5 Applies knowledge of movement concepts, strategies, and tactics in fielding/striking games.

PE.6.2.5.a Identifies open spaces and attempts to strike object into that space.

PE.6.2.5.b Identifies the correct defensive play based on the situation (e.g., number of outs).

PE.6.2.6 Applies knowledge of movement concepts, strategies, and tactics in outdoor pursuits.

PE.6.2.6.a Makes appropriate decisions based on the weather, level of difficulty due to conditions, or ability to ensure safety of self and others.

PE.6.3 Health-Related Physical Activity and Fitness

PE.6.3.1 Demonstrates the knowledge and skill to achieve and maintain a health-enhancing level of physical activity.

PE.6.3.1.a Explains how being physically active leads to a healthy body.

PE.6.3.1.b Describes the difference between aerobic and anaerobic capacity in order to participate, in a variety of activities with moderate to vigorous intensity, for a minimum of 60 minutes a day.

PE.6.3.2 Engages in physical activity.

PE.6.3.2.a Participates in a variety of body weight strength and endurance fitness activities.

PE.6.3.2.b Participates in a variety of aerobic fitness activities using technology (e.g., video exercise games, heart rate monitors, pedometers).

PE.6.3.2.c Participates in a variety of lifetime recreational team sports, outdoor pursuits, and/or dance activities.

PE.6.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.6.3.3.a Describes the components of skill-related fitness.

PE.6.3.3.b Sets and monitors a self-selected fitness goal.

PE.6.3.3.c Describes the role of warm-ups and cool-downs through dynamic movement.

PE.6.3.3.d Employs correct techniques and methods of stretching.

PE.6.3.3.e Identifies each of the components of the overload principles (Frequency, Intensity, Time, Type {FITT}) for different types of physical activity.

PE.6.3.3.f Defines resting heart rate and describes its relationship to aerobic fitness and Borg Rating of Perceived Exertion (RPE) scale.

PE.6.3.3.g Performs multi-joint and single-joint resistance training movements.

PE.6.3.3.h Identifies the concepts of muscular strength exercises and the relationship between incorrect technique and injury.

PE.6.3.3.i Designs and implements a program of remediation for any areas of weakness based on the results of health-related fitness assessment.

PE.6.3.3.j Maintains a physical activity log for at least two weeks and reflects on activity levels as documented in the log.

PE.6.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.6.3.4.a Identifies foods within each of the basic food groups and selects appropriate servings and portions for his/her age and physical activity levels.

PE.6.3.5 Communicates the importance of health-related fitness components and stress management with physical activity.

PE.6.3.5.a Identifies positive and negative results of stress and appropriate ways of dealing with each.

PE.6.4 Responsible Behavior

PE.6.4.1 Exhibits personal responsibility in physical activity settings.

PE.6.4.1.a Exhibits personal responsibility through appropriate etiquette, respect for facilities and equipment, and safe behaviors.

PE.6.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.6.4.2.a Implements specific corrective feedback to improve performance.

PE.6.4.3 Exhibits responsible social behavior when working with others.

PE.6.4.3.a Accepts differences among classmates in physical development, maturation, and varying skill levels by providing positive encouragement.

PE.6.4.3.b Cooperates with a small group of classmates during adventure activities, game play, or team-building activities.

PE.6.4.4 Follows rules and demonstrates proper etiquette.

PE.6.4.4.a Implements the rules and etiquette for physical activities, games, and dance activities.

PE.6.4.5 Participates safely in physical activities.

PE.6.4.5.a Uses physical activity and fitness equipment appropriately and safely with teacher guidance.

PE.6.4.5.b Applies specific safety concerns associated with the activity with teacher guidance.

PE.6.5 Physical Activity Benefits

PE.6.5.1 Recognizes the benefits of physical activity for health.

PE.6.5.1.a Identifies different types of physical activities and describes how each positively impacts health.

PE.6.5.1.b Explains how physical activity provides opportunities for reducing stress.

PE.6.5.2 Recognizes the benefits of physical activity for challenge.

PE.6.5.2.a Recognizes individual challenges in physical activity and copes in a positive way (e.g., extending effort, asking for help or feedback, modifying the tasks).

PE.6.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.6.5.3.a Associates physical activity with enjoyment.

PE.6.5.3.b Describes how moving competently in a physical activity setting creates enjoyment.

PE.6.5.3.c Identifies the relationship between self-expression and physical activity.

PE.6.5.4 Recognizes the benefits of physical activity for social interaction.

PE.6.5.4.a Respects self and others in activities and games by following the rules, encouraging others, and playing in the spirit of the game or activity (e.g., sportsmanship).

PE.7.1 Physical Activity Skills and Movement Patterns

PE.7.1.1 Performs a variety of dance and rhythmic skills and activities with competency.

PE.7.1.1.a Applies movement patterns to a beat or rhythm in a dance.

PE.7.1.1.b Applies movement patterns to a beat in a rhythmic activity.

PE.7.1.2 Performs a variety of invasion and field game skills and activities with competency.

PE.7.1.2.a Throws with a mature pattern within a dynamic environment for distance, force, and speed (e.g., softball, football, basketball, Frisbee).

PE.7.1.2.b Catches a variety of objects with a mature pattern in a dynamic environment (e.g., softball, football, basketball, Frisbee).

PE.7.1.2.c Passes an object with feet in combination with running, changing direction, and speed with competency.

PE.7.1.2.d Receives object with feet in combination with running, changing direction, and speed.

PE.7.1.2.e Performs pivots, fakes, and jab steps correctly with defensive pressure (e.g., basketball, soccer, lacrosse, flag football).

PE.7.1.2.f Dribbles with dominant and non-dominant hand using a change of speed and direction in a variety of practice tasks (e.g., basketball).

PE.7.1.2.g Foot-dribbles combined with passing, changing speed and direction, in a variety of practice tasks (e.g., soccer).

PE.7.1.2.h Dribbles with an implement combined with passing in a variety of practice tasks (e.g., floor hockey, broomball).

PE.7.1.2.i Shoots with a mature pattern, power, and accuracy in a modified game (e.g., basketball, team handball, soccer).

PE.7.1.2.j Maintains defensive ready position while moving, appropriate to the activity (e.g., basketball, volleyball, softball, flag football, wrestling).

PE.7.1.3 Performs a variety of net and wall game skills and activities with competency.

PE.7.1.3.a Performs a legal underhand serve with accuracy to a target.

PE.7.1.3.b Strikes with a mature overhand pattern in a dynamic environment (e.g., volleyball, handball, badminton, tennis).

PE.7.1.3.c Strikes with mature pattern using the forehand and backhand strokes with a long-handled implement.

PE.7.1.3.d Performs forehand and backhand volleys with mature pattern and control using an implement.

PE.7.1.3.e Performs overhead two-hand volley with control. PE.7.1.3.f Performs a forearm pass with a mature pattern to a partner.

PE.7.1.4 Performs a variety of target game skills and activities with competency.

PE.7.1.4.a Throws underhand with a mature pattern consistently in a modified target game.

PE.7.1.4.b Strikes, with an implement, a stationary object for accuracy (e.g., croquet, golf, shuffleboard).

PE.7.1.5 Performs a variety of fielding/striking game skills and activities with competency.

PE.7.1.5.a Strikes a pitched ball to an open space in a variety of practice tasks.

PE.7.1.5.b Catches with hands with a mature pattern, from different trajectories using a variety of balls in small-sided games.

PE.7.1.6 Performs a variety of outdoor pursuits and individual performance activities with competency.

PE.7.1.6.a Demonstrates correct technique for a variety of skills in one self-selected outdoor activity (e.g., fishing, archery, wall climbing, geocaching, bicycling).

PE.7.1.6.b Demonstrates correct technique for a variety of skills in one self-selected activity (e.g., wrestling, track and field, skating, tumbling).

PE.7.2 Movement Concepts, Strategies, and Tactics

PE.7.2.1 Applies knowledge of movement concepts, strategies, and tactics in individual performance activities, dance, and rhythms.

PE.7.2.1.a Applies Newton’s laws of motion to various dance or movement activities.

PE.7.2.2 Applies knowledge of movement concepts, strategies, and tactics in invasion games.

PE.7.2.2.a Reduces space through locomotor movements appropriate to the activity.

PE.7.2.2.b Responds with appropriate locomotor movements while transitioning between offense and defense, communicating with teammates.

PE.7.2.3 Applies knowledge of movement concepts, strategies, and tactics in net/wall games.

PE.7.2.3.a Creates space when hitting with long-handled implement by varying force and direction and moving opponent from side to side.

PE.7.2.3.b Selects offensive shot based on opponent’s location.

PE.7.2.4 Applies knowledge of movement concepts, strategies, and tactics in target games.

PE.7.2.4.a Varies the speed and/or trajectory of the shot based on location of the object in relation to the target.

PE.7.2.5 Applies knowledge of movement concepts, strategies, and tactics in fielding/striking games.

PE.7.2.5.a Utilizes a variety of shots to hit to an open space.

PE.7.2.5.b Selects the correct defensive play based on the situation (e.g., number of outs).

PE.7.2.6 Applies knowledge of movement concepts, strategies, and tactics in outdoor pursuits.

PE.7.2.6.a Analyzes the situation and makes adjustments to ensure the safety of self and others.

PE.7. 3 Health-Related Physical Activity and Fitness

PE.7.3.1 Demonstrates the knowledge and skill to achieve and maintain a health-enhancing level of physical activity.

PE.7.3.1.a Identifies barriers related to maintaining a physically active lifestyle and seeks solutions for eliminating those barriers.

P.E.7.3.2 Engages in physical activity.

PE.7.3.2.a Participates in a variety of activities with moderate to vigorous intensity for a minimum of 60 minutes a day.

PE.7.3.2.b Participates in a variety of strength and muscular endurance fitness activities using body weight (e.g., resistance bands).

PE.7.3.2.c Participates in a variety of aerobic-fitness activities using technology (e.g., video exercise games, heart rate monitors, pedometers).

PE.7.3.2 d Participates in a variety of lifetime dual and individual sports, martial arts or aquatic activities.

PE.7.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.7.3.3.a Distinguishes between health-related and skill-related fitness.

PE.7.3.3.b Adjusts amount of physical activity based on quantity of exercise to maintain and/or improve fitness levels.

PE.7.3.3.c Designs a warm-up/cool-down regimen using dynamic and static stretches for a self-selected physical activity

PE.7.3.3.d Describes the overload principles of Frequency, Intensity, Time, and Type (FITT) for different types of physical activity, the training principles on which the formula is based, and how the formula and principles affect fitness.

PE.7.3.3.e Defines how the Borg Rating of Perceived Exertion (RPE) scale can be used to determine the perception of the work effort or intensity of exercise.

PE.7.3.3.f Performs a variety of single-joint and multi-joint movements in resistance training with an implement.

PE.7.3.3.g Performs appropriate techniques related to muscular strength and endurance to ensure safety and injury prevention.

PE.7.3.3.h Designs and implements a program of remediation for two areas of weakness based on the results of health-related fitness assessment.

PE.7.3.3.i Maintains a physical activity log and nutrition log for at least two weeks, and reflects on activity levels and nutrition as documented in the log.

PE.7.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.7.3.4.a Develops strategies for balancing healthy food, snacks and water intake, along with physical activity.

PE.7.3.5 Communicates the importance of health-related fitness components and stress management with physical activity.

PE.7.3.5.a Practices strategies for dealing with stress (e.g., deep breathing, guided visualization, aerobic exercise).

PE.7.4 Responsible Behavior

PE.7.4.1 Exhibits personal responsibility in physical activity settings.

PE.7.4.1.a Demonstrates both intrinsic and extrinsic motivation by selecting opportunities to participate in physical activity outside of class.

PE.7.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.7.4.2.a Provides positive corrective feedback to a peer using teacher-generated guidelines and incorporating appropriate tone and other communication skills.

PE.7.4.3 Exhibits responsible social behavior when working with others.

PE.7.4.3 a Demonstrates cooperation skills by establishing rules and guidelines for resolving conflicts.

PE.7.4.3.b Exhibits responsible social behaviors by cooperating with classmates, demonstrating inclusive behaviors, and supporting classmates.

PE.7.4.3.c Problem solves with a small group of classmates during adventure activities, game play, or team building activities.

PE.7.4.4 Follows rules and demonstrates proper etiquette.

PE.7.4.4.a Self-officiates modified physical activities and games.

PE.7.4.4.b Demonstrates appropriate behaviors and etiquette while observing and performing dance.

PE.7.4.5 Participates safely in physical activities.

PE.7.4.5.a Independently uses physical activity and fitness equipment appropriately and safely.

PE.7.4.5.b Applies specific safety concerns associated with the activity in individual practice.

PE.7.5 Physical Activity Benefits

PE.7.5.1 Recognizes the benefits of physical activity for health.

PE.7.5.1.a Identifies examples of activities that enhance each of the five components of health-related fitness.

PE.7.5.1.b Participates in a variety of physical activities to experience positive mental and emotional benefits.

PE.7.5.2 Recognizes the benefits of physical activity for challenge.

PE.7.5.2.a Generates positive strategies when faced with a group challenge in physical activity (e.g., offering suggestions or assistance, leading, or following others and providing possible solutions).

PE.7.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.7.5.3.a Enjoys self-selected physical activities.

PE.7.5.3.b Describes how moving competently in a physical activity setting creates enjoyment.

PE.7.5.3 c Explains the relationship between self-expression and lifelong enjoyment through physical activity.

PE.7.5.4 Recognizes the benefits of physical activity for social interaction.

PE.7.5.4.a Demonstrates the importance of social interactions by helping and encouraging others, avoiding negative comments and providing support to classmates.

PE.8.1 Physical Activity Skills and Movement Patterns

PE.8.1.1 Performs a variety of dance and rhythmic skills and activities with competency.

PE.8.1.1.a Creates a sequence of movements to a beat or rhythm in a dance.

PE.8.1.1.b Creates a sequence of movements for a rhythmic activity.

PE.8.1.2 Performs a variety of invasion and field game skills and activities with competency.

PE.8.1.2.a Throws with a mature pattern for distance, force, and speed in small-sided game play (e.g., softball, basketball, football, lacrosse, Frisbee).

PE.8.1.2.b Catches using an implement with a mature pattern in small-sided game play (e.g., lacrosse, scoop).

PE.8.1.2.c Passes an object with an implement in combination with running, changing direction, and speed with competency (e.g., hockey, lacrosse, scoop).

PE.8.1.2.d Receives object with an implement in combination with running, changing direction, and speed (e.g., hockey, broomball).

PE.8.1.2.e Performs pivots, fakes, and jab steps correctly in modified games (e.g., basketball, soccer, lacrosse, flag football).

PE.8.1.2.f Dribbles with dominant and non-dominant hand using a change of speed and direction in small-sided game play (e.g., basketball).

PE.8.1.2.g Foot-dribbles combined with passing, changing speed and direction in small-sided game play (e.g., soccer).

PE.8.1.2.h Dribbles with an implement combined with passing in modified games (e.g., floor hockey, broom ball).

PE.8.1.2.i Shoots on goal using an implement with power and accuracy in a modified game (e.g., team handball, hockey and lacrosse).

PE.8.1.2.j Utilizes drop step technique while defending (e.g., basketball, football, softball).

PE.8.1.3 Performs a variety of net and wall game skills and activities with competency.

PE.8.1.3.a Performs a legal underhand serve with accuracy in a modified game.

PE.8.1.3.b Strikes with a mature overhand pattern in a modified game (e.g., volleyball, handball, badminton, tennis).

PE.8.1.3.c Strikes with mature pattern, using the forehand and backhand strokes with a short- or long-handled implement with accuracy, in a modified game.

PE.8.1.3.d Applies forehand and backhand volleys with a mature pattern and control using an implement in a modified game.

PE.8.1.3.e Executes overhead two-hand volley with control in a modified game.

PE.8.1.3.f Performs a forearm pass with a mature pattern and control in a modified game.

PE.8.1.4 Performs a variety of target game skills and activities with competency.

PE.8.1.4.a Throws underhand for accuracy and control with a mature pattern in a modified target game.

PE.8.1.4.b Strikes, with an implement, a stationary object for accuracy and distance (e.g., croquet, golf, shuffleboard).

PE.8.1.5 Performs a variety of fielding/striking game skills and activities with competency.

PE.8.1.5.a Strikes a pitched ball with power with an implement to an open space in a variety of small-sided games.

PE.8.1.5 b Catches, using an implement, from different trajectories and speeds in a dynamic environment or modified game play.

PE.8.1.6 Performs a variety of outdoor pursuits and individual performance activities with competency.

PE.8.1.6.a Demonstrates correct technique for a variety of skills in two self-selected outdoor activities (e.g., fishing, archery, wall climbing, geocaching, bicycling).

PE.8.1.6.b Demonstrates correct technique for a variety of skills in two self-selected activities (e.g., wrestling, track and field, skating, tumbling).

PE.8.2 Movement Concepts, Strategies, and Tactics

PE.8.2.1 Applies knowledge of movement concepts, strategies, and tactics in individual performance activities, dance and rhythms.

PE.8.2.1.a Describes and applies mechanical advantage(s) for a variety of movement patterns.

PE.8.2.2 Applies knowledge of movement concepts, strategies, and tactics in invasion games.

PE.8.2.2.a Creates and reduces space using a variety of passes and offensive tactics during modified games (e.g., pivots, fakes, give and go).

PE.8.2.2.b Responds with appropriate locomotor movements while transitioning between offense and defense, communicating with teammates, and capitalizing on opportunities.

PE.8.2.3 Applies knowledge of movement concepts, strategies, and tactics in net/wall games.

PE.8.2.3.a Creates space when hitting with either a long- or short-handled implement by varying force or direction or by moving opponent side-to-side and/or forward and back.

PE.8.2.3.b Varies placement, force and timing of return to prevent anticipation by opponent.

PE.8.2.4 Applies knowledge of movement concepts, strategies, and tactics in target games.

PE.8.2.4.a Varies the speed, force, and trajectory of the shot based on location of the object in relation to the target.

PE.8.2.5 Applies knowledge of movement concepts, strategies, and tactics in fielding/striking games.

PE.8.2.5.a Identifies sacrifice situations and attempts to advance a teammate.

PE.8.2.5.b Reduces open spaces in the field by working with teammates to maximize coverage.

PE.8.2.6 Applies knowledge of movement concepts, strategies, and tactics in outdoor pursuits.

PE.8.2.6.a Implements safe protocols in self-selected outdoor activities.

PE.8.3 Health-Related Physical Activity and Fitness

PE.8.3.1 Demonstrates the knowledge and skill to achieve and maintain a health-enhancing level of physical activity.

PE.8.3.1.a Explains the connections between health-related fitness and overall physical and mental health.

PE.8.3.2 Engages in physical activity.

PE.8.3.2.a Participates in a variety of activities with moderate to vigorous intensity for a minimum of 60 minutes a day.

PE.8.3.2.b Plans and creates, with teacher assistance, a variety of strength and muscular endurance activities using body weight and light free-weights.

PE.8.3.2.c Participates in a variety of aerobic fitness activities using technology (e.g., video exercise games, heart rate monitors, pedometers).

PE.8.3.2.d Participates in self-selected lifetime sport, dance, aquatic, or outdoor activity outside of the school day.

PE.8.3.3 Exhibits the knowledge to achieve and maintain a health-enhancing level of physical fitness.

PE.8.3.3.a Compares and contrasts physical activities based on their contributions to health-related fitness components.

PE.8.3.3.b Uses available technology to self-monitor quantity of exercise and enhance current fitness level.

PE.8.3.3.c Designs and implements a variety of warm-up/cool-down regimens with a variety of dynamic and static stretches for multiple activities.

PE.8.3.3.d Uses the overload principle in preparing a personal workout.

PE.8.3.3.e Defines how the Borg Rate of Perceived Exertion (RPE) scale can be used to adjust workout intensity during physical activity.

PE.8.3.3.f Performs a variety of single-joint and multi-joint movements in resistance training with an appropriately selected resistance.

PE.8.3.3.g Identifies technical resistance progressions and determines corrections that are necessary for injury prevention and health promotion.

PE.8.3.3.h Designs and implements a program of remediation for three areas of weakness based on the results of health-related fitness assessment.

PE.8.3.3.i Designs and implements a program to improve levels of health-related fitness and nutrition.

PE.8.3.4 Communicates the importance of health-related fitness components and nutrition for physical activity.

PE.8.3.4.a Describes the relationship between poor nutrition and health risk factors.

PE.8.3.5 Communicates the importance of health-related fitness components and stress management with physical activity.

PE.8.3.5.a Performs basic movements used in other stress-reducing activities (e.g., yoga, tai chi).

PE.8.4 Responsible Behavior

PE.8.4.1 Exhibits personal responsibility in physical activity settings.

PE.8.4.1.a Accepts responsibility for personal and social behaviors and improving ones' own level of physical activity and fitness.

PE.8.4.2 Accepts and responds to specific corrective feedback from teacher and peers.

PE.8.4.2.a Provides encouragement and positive feedback to peers without prompting from the teacher.

PE.8.4.3 Exhibits responsible social behavior when working with others.

PE.8.4.3.a Responds appropriately to participants' behavior during physical activity by using rules and guidelines for resolving conflict.

PE.8.4.3.b Employs critical thinking skills to solve problems and make decisions.

PE.8.4.4 Follows rules and demonstrates proper etiquette.

PE.8.4.4.a Officiates modified physical activities and games.

PE.8.4.4.b Creates dance routines applying appropriate behavior and etiquette observing, creating, and performing dance.

PE.8.4.5 Participates safely in physical activities.

PE.8.4.5.a Independently uses physical activity and fitness equipment appropriately.

PE.8.4.5.b Identifies specific safety associated with the physical activity.

PE.8.4.5.c Applies specific safety concerns associated with the activity when practicing with peers.

PE.8.5 Physical Activity Benefits

PE.8.5.1 Recognizes the benefits of physical activity for health.

PE.8.5.1.a Explains the connections between fitness and overall physical and mental health.

PE.8.5.1.b Analyzes the empowering consequences of being physically active as it relates to physical, social, and mental/emotional health.

PE.8.5.2 Recognizes the benefits of physical activity for challenge.

PE.8.5.2.a Develops a plan of action for challenge in physical activity and makes appropriate decisions based on that plan.

PE.8.5.3 Recognizes the benefits of physical activity for self-expression and enjoyment.

PE.8.5.3.a Enjoys self-selected physical activities.

PE.8.5.3.b Describes how moving competently in a physical activity setting creates enjoyment.

PE.8.5.3.c Identifies and participates in an enjoyable activity that prompts individual expression.

PE.8.5.4 Recognizes the benefits of physical activity for social interaction.

PE.8.5.4.a Exhibits respect for self by asking for help and helping others in various physical activities.

Nebraska Physical Education Course Numbering System

High School

NUMBERING KEY	**COURSE**
PE.HS.1	Foundations for Physical Education and Fitness
PE.HS.2	Beginning Swimming
PE.HS.3	Intermediate Swimming
PE.HS.4	Fitness Swimming and Aquatic Activities
PE.HS.5	Introduction to Strength and Conditioning
PE.HS.6	Intermediate Strength and Conditioning
PE.HS.7	Advanced Strength and Conditioning
PE.HS.8	Aerobic Training
PE.HS.9	Advanced Aerobic Training
PE.HS.10	Introduction to Dance
PE.HS.11	Hip Hop Dance
PE.HS.12	Ballroom Dance
PE.HS.13	Dance Performance
PE.HS.14	Lifetime Activities
PE.HS.15	Team Games
PE.HS.16	Outdoor Pursuits
PE.HS.17	Lifeguard Training and Water Safety Instruction Aide
PE.HS.18	Sport Officiating

NOTE: ***The focus of the High School physical education standards is on planning and implementing individual physical activity goals that lead to lifelong fitness. The Team Games Course is less suited to individual lifelong fitness as these games do not encourage moderate to vigorous physical activity for all participants.***

PE.HS.1 Foundations For Physical Education and Fitness

PE.HS.1.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.1.1.a Performs and/or refines activity-specific movement skills in four or more lifetime activities (e.g., outdoor pursuits, aquatics, net games, individual performance activities).

PE.HS.1.1.b Demonstrates proficiency in multiple skills in a variety of health-related activities (e.g., running, core exercises, yoga, resistance training).

PE.HS.1.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.1.2.a Applies the terminology associated with exercise and participation in selected individual performance activities, dance, net/wall games, target games, aquatics, and/or outdoor pursuits.

PE.HS.1.2.b Analyzes and improves performance of self and/or others in a selected skill using movement concepts and principles (e.g., force, motion, rotation).

PE.HS.1.2.c Creates a practice plan to improve performance of a self-selected skill.

PE.HS.1.2.d Discusses the benefits of a physically active lifestyle throughout the life cycle.

PE.HS.1.2.e Evaluates the validity of claims made by commercial products and programs pertaining to fitness and a healthy, active lifestyle.

PE.HS.1.2.f Identifies issues associated with exercising in heat, humidity and cold.

PE.HS.1.2.g Analyzes the benefits, social support network, and participation requirements of activities that can be pursued in the local environment.

PE.HS.1.2.h Evaluates risks and safety factors that might impact physical activity preferences throughout the life span.

PE.HS.1.2.i Identifies types of strength exercises (e.g., isometric, concentric, eccentric) for personal fitness development (e.g., strength, endurance, range of motion).

PE.HS.1.2.j Identifies stretching exercises (e.g., static, proprioceptive neuromuscular facilitation {PNF}, dynamic) for personal fitness development (e.g., strength, endurance, range of motion).

PE.HS.1.2.k Calculates target heart rate and applies that information to personal fitness.

PE.HS.1.2.l Creates and implements a behavior-modification plan that enhances a healthy, active lifestyle.

PE.HS.1.2.m Designs and implements a fitness program that includes all components of health-related fitness.

PE.HS.1.2.n Designs and implements a nutrition plan to maintain an appropriate energy balance for a healthy, active lifestyle.

PE.HS.1.2.o Researches stress-management strategies (e.g., mental imagery, relaxation techniques, deep breathing, aerobic exercise, meditation).

PE.HS.1.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.1.3.a Exhibits etiquette, respect for others, and teamwork while engaging in physical activity.

PE.HS.1.3.b Utilizes communication skills and strategies that promote team/group dynamics.

PE.HS.1.3.c Solves problems and thinks critically in physical activity, both as an individual and in groups.

PE.HS.1.3.d Applies best practices for participating safely in physical activity (e.g., injury prevention, proper alignment, hydration, use of equipment, implementation of rules, sun protection).

PE.HS.1.3.e Analyzes the health benefits of a self-selected physical activity.

PE.HS.1.3.f Chooses an appropriate level of challenge to experience success and desire to participate in self-selected physical activity.

PE.HS.1.3.g Selects and participates in physical activities that meet the need for self-expression and enjoyment.

PE.HS.2 Beginning Swimming

PE.HS.2.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.2.1.a Attempts basic swimming strokes (e.g., sidestroke, elementary backstroke, front crawl, and backstroke).

PE.HS.2.1.b Performs basic survival skills and drown-proofing techniques (e.g., treading, floating, water entries, lifejacket protocol).

PE.HS.2.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.2.2.a Participates in water recreation games and activities to enhance fitness (e.g., water aerobics/exercises, water volleyball, water baseball).

PE.HS.2.2.b Identifies the health benefits of swimming and aquatic activities (e.g., health-related components, low impact, rehabilitation).

PE.HS.2.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.2.3.a Exhibits etiquette, respect for others and teamwork while engaging in aquatic activities.

PE.HS.2.3.b Applies best practices for participating safely in and around aquatic activities (e.g., safe entry, walking on the deck, space awareness, lifejacket protocol).

PE.HS.3 Intermediate/Advanced Swimming

PE.HS.3.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.3.1.a Performs basic swimming strokes (e.g., sidestroke, elementary backstroke, front crawl, and backstroke).

PE.HS.3.1.b Executes in water skills (e.g., turns, flag count).

PE.HS.3.1.c Executes near-water skills (e.g., starts, board approach).

PE.HS.3.2 Applies knowledge of concepts, principles, tactics and strategies related to movement and performance to achieve and maintain a health enhancing level of physical activity and fitness.

PE.HS.3.2.a Participates in water recreation games and activities to enhance fitness (e.g., water aerobics/exercises, water volleyball, water polo, kayaking, paddle boarding, yoga, dance).

PE.HS.3.2.b Designs and implements personal workouts and fitness goals in an aquatic environment (e.g., warm up, workout, cool down, Frequency, Intensity, Type, and Time {FITT}).

PE.HS.3.2.c Analyzes the health benefits of self-selected aquatic activities (e.g., health-related components, disease prevention, heart rate, target heart rate zone).

PE.HS.3.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.3.3.a Exhibits etiquette, respect for others, and teamwork while engaging in aquatic activities.

PE.HS.3.3.b Employs effective self-management skills to analyze individual barriers and modify aquatic activity patterns as needed.

PE.HS.3.3.c Performs appropriate water safety skills (e.g., safe entry, lane etiquette, diving, space awareness, reach or throw, don’t go, flag count).

PE.HS.4 Fitness Swimming and Aquatic Activities

PE.HS.4.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.4.1.a Performs four competitive strokes (e.g., butterfly, backstroke, breaststroke, front crawl).

PE.HS.4.1.b Executes in water skills (e.g., turns, flag count, survival using clothing for flotation).

PE.HS.4.1.c Executes near water skills (e.g., starts, board approach with flight, sizing paddles).

PE.HS.4.1.d Applies movement concepts and principles (e.g., force, motion, rotation) to analyze and improve performance of self and/or others in selected aquatic skills.

PE.HS.4.2 Applies knowledge of concepts, principles, tactics and strategies related to movement and performance to achieve and maintain a health enhancing level of physical activity and fitness.

PE.HS.4.2.a Designs and implements a plan to improve performance and/or maintain a healthy and active lifestyle (e.g., workouts, fin & paddle use, water exercise courses in community).

PE.HS.4.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.4.3.a Exhibits etiquette, respect for others and teamwork while engaging in aquatic activities.

PE.HS.4.3.b Selects an appropriate level of challenge to experience success and desire to participate in a self-selected aquatic activity.

PE.HS.4.3.c Utilizes communication skills and implements strategies that promote team/group dynamics in aquatic environments.

PE.HS.5 Introduction to Strength and Conditioning

PE.HS.5.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.5.1.a Performs technique for beginning resistance training and/or free-weight exercises.

PE.HS.5.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.5.2.a Identifies and implements components of an appropriate effective strength and conditioning program.

PE.HS.5.2.b Identifies and uses the major muscle groups in specific exercises.

PE.HS.5.2.c Applies the terminology associated with exercise and participation in beginning strength and conditioning activities.

PE.HS.5.2.d Analyzes the validity of claims made by commercial products and programs pertaining to strength and conditioning.

PE.HS.5.2.e Analyzes and applies technology and social media as tools for supporting a strength and conditioning program.

PE.HS.5.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.5.3.a Applies best practices for participating safely in beginning strength and conditioning exercises.

PE.HS.5.3.b Selects an appropriate level of challenge to experience success and desire to participate in beginning strength and conditioning environments.

PE.HS.5.3.c Exhibits etiquette, respect for others, and teamwork while engaging in beginning strength and conditioning environments.

PE. HS.6 Intermediate Strength and Conditioning

PE.HS.6.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.6.1.a Performs technique for intermediate resistance training and free-weight exercises.

PE.HS.6.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.6.2.a Identifies and performs types of strength exercises (e.g., isometric, concentric, eccentric) for personal fitness (e.g., strength, endurance, range of motion).

PE.HS.6.2.b Identifies and performs types of stretching exercises (e.g., static, proprioceptive neuromuscular facilitation {PNF}, dynamic) for personal fitness (e.g., strength, endurance, range of motion).

PE.HS.6.2.c Designs a strength and conditioning program, including all components of health-related fitness as it relates to living a healthy and active adult lifestyle.

PE.HS.6.2.d Evaluates claims of commercial products and programs for strength and conditioning.

PE.HS.6.2.e Analyzes and applies technology and social media as tools for supporting a strength and conditioning program.

PE.HS.6.2.f Applies the terminology associated with exercise and participation in intermediate strength and conditioning programs.

PE.HS.6.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.6.3.a Applies best practices for participating safely in intermediate strength and conditioning exercises.

PE.HS.6.3.b Exhibits etiquette, respect for others, and teamwork while engaging in intermediate strength and conditioning environments.

PE.HS.6.3.c Employs effective self-management skills to analyze barriers and modify intermediate strength and conditioning activities as needed to meet individual needs.

PE.HS.7 Advanced Strength and Conditioning

PE.HS.7.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.7.1.a Performs technique for advanced resistance training and free-weight exercises.

PE.HS.7.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.7.2.a Analyzes and improves performance of self and/or others in a strength and conditioning exercise using movement concepts and principles (e.g., force, motion, rotation).

PE.HS.7.2.b Designs and implements a personal strength and conditioning program that supports a healthy, active lifestyle.

PE.HS.7.2.c Selects and performs exercises that use the different energy systems (e.g., adenosine triphosphate and phosphocreatine, anaerobic glycolysis, aerobic).

PE.HS.7.2.d Applies basic knowledge of energy systems for improving physical fitness.

PE.HS.7.2.e Identifies the structure of skeletal muscle and fiber types as they relate to muscle development.

PE.HS.7.2.f Creates and maintains a strength and conditioning portfolio (e.g., assessment scores, goals for improvement, plan of activities for improvement, log of activities being done to reach goals, timeline for improvement).

PE.HS.7.2.g Analyzes and applies technology and social media as tools for supporting a strength and conditioning program.

PE.HS.7.2.h Applies the terminology associated with exercise and participation in advanced strength and conditioning programs.

PE.HS.7.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.7.3.a Applies best practices for participating safely in advanced strength and conditioning exercises.

PE.HS.7.3.b Exhibits etiquette, respect for others and teamwork while engaging in advanced strength and conditioning environments.

PE.HS.7.3.c Employs effective self-management skills to analyze barriers and modify advanced strength and conditioning activities as needed to meet individual needs.

PE.HS.8 Aerobic Training

PE.HS.8.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.8.1.a Performs multiple skills in a variety of different aerobic activities.

PE.HS.8.1.b Demonstrates the correct technique associated with a variety of different activities within aerobic training.

PE.HS.8.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.8.2.a Identifies and applies the movement concepts and principles utilized for the improvement of performance.

PE.HS.8.2.b Identifies a variety of aerobic activities that can be pursued in the local environment in order to evaluate the benefits of each activity for future personal use.

PE.HS.8.2.c Isolates muscle groups that correspond with exercises performed.

PE.HS.8.2.d Utilizes appropriate terminology associated with aerobic activities.

PE.HS.8.2.e Researches the benefits of aerobic activity as it pertains to a healthy adult lifestyle.

PE.HS.8.2.f Evaluates the validity of commercial products and services focusing on aerobic activity and a healthy lifestyle.

PE.HS.8.2.g Identifies and utilizes technology tools and social media resources that are effective for instruction and enhancement of specific aerobic training.

PE.HS.8.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.8.3.a Exhibits etiquette, behavior, and respect for others while engaging in aerobic activity.

PE.HS.8.3.b Develops and maintains a portfolio including personal needs assessments, goal setting, and activity plans to improve and maintain aerobic fitness.

PE.HS.8.3.c Selects and performs multiple aerobic activities which provide enjoyment.

PE.HS.8.3.d Chooses and performs at an appropriate level of challenge to experience success and desire to participate in self-selected physical activity.

PE.HS.8.3.e Analyzes the health benefits of a self-selected physical activity within aerobic training.

PE.HS.8.3.f Differentiates between personal characteristics necessary to media portrayals of idealized body images and elite performance levels in relation to achieving and maintaining a healthy level of fitness.

PE.HS.9 Advanced Aerobic Training

PE.HS.9.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.9.1.a Performs multiple skills in a variety of aerobic activities.

PE.HS.9.1.b Executes multiple techniques in a variety of resistance training activities.

PE.HS.9.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.9.2.a Applies terminology associated with aerobic activities and resistance training.

PE.HS.9.2.b Analyzes and improves performance of self and others utilizing movement concepts and principles.

PE.HS.9.2.c Researches the benefits of aerobic and resistance training activities as they relate to living a healthy, active adult lifestyle.

PE.HS.9.2.d Evaluates the validity of commercial products and programs pertaining to aerobic and resistance training activities.

PE.HS.9.2.e Applies technology and social media as tools for supporting a healthy, active lifestyle.

PE.HS.9.2.f Creates a plan, trains for, and participates in a community event.

PE.HS.9.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.9.3.a Exhibits etiquette, respect for others, and teamwork while engaging in aerobic and resistance activities.

PE.HS.9.3.b Analyzes the health benefits of a self-selected aerobic activity.

PE.HS.9.3.c Applies best practices for participating safely in aerobic and resistance training activities.

PE.HS.10 Introduction to Dance

PE.HS.10.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.10.1.a Executes technical skills in a variety of dance forms (e.g., ballet, modern, hip-hop, line, jazz, ballroom).

PE.HS.10.1.b Creates and performs dance phrases to communicate ideas, images, feelings, and experiences based on inspiration from a variety of sources (e.g., create and perform a dance phrase based on a favorite song, poem, art piece).

PE.HS.10.1.c Choreographs and performs a dance in collaboration with others.

PE.HS.10.2 Applies knowledge of concepts, principles, tactics and strategies related to movement and performance to achieve and maintain a health enhancing level of physical activity and fitness.

PE.HS.10.2.a Analyzes similarities and differences in various dance forms.

PE.HS.10.2.b Choreographs a dance in collaboration with others.

PE.HS.10.2.c Performs a dance individually or with others.

PE.HS.10.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.10.3.a Applies appropriate behavior and etiquette to create and perform a variety of dance forms.

PE.HS.10.3.b Selects and participates in dance that meets the need for self-expression and enjoyment.

PE.HS.10.3.c Identifies the opportunity for social support in dance.

PE.HS.11 Hip-Hop Dance

PE.HS.11.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.11.1.a Implements dance elements within hip-hop dance.

PE.HS.11.1.b Creates and performs a dance sequence that uses a variety of hip-hop dance elements to implement simple choreographic structures and principles to fulfill choreographic intent.

PE.HS.11.1.c Choreographs and performs a hip-hop dance.

PE.HS.11.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.11.2.a Analyzes similarities and differences in various hip-hop dance forms.

PE.HS.11.2.b Applies dance terminology used to communicate in hip-hop dance.

PE.HS.11.2.c Choreographs a hip-hop dance in collaboration with others.

PE.HS.11.2.d Performs a hip-hop dance individually or with others.

PE.HS.11.2.e Identifies hip-hop dance opportunities that can be pursued in the local environment.

PE.HS.11.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.11.3.a Applies appropriate behavior and etiquette to create and perform hip-hop dance.

PE.HS.11.3.b Identifies the uniqueness of hip-hop dance as a means of self-expression.

PE.HS.11.3.c Selects and participates in hip-hop dance that meets the need for self-expression and enjoyment.

PE.HS.11.3.d Identifies the opportunity for social support in hip-hop dance.

PE.HS.12 Ballroom Dance

PE.HS.12.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.12.1.a Executes technical skills in ballroom dance forms used for cultural and social occasions.

PE.HS.12.1.b Creates and performs a dance sequence that uses a variety of ballroom dance elements to implement simple choreographic structures and principles to fulfill choreographic intent.

PE.HS.12.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.12.2.a Analyzes similarities and differences in various ballroom dance forms.

PE.HS.12.2.b Applies dance terminology used to communicate in ballroom dance.

PE.HS.12.2.c Identifies examples of social and technical dance forms.

PE.HS.12.2.d Identifies ballroom dance opportunities that can be pursued in the local environment.

PE.HS.12.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.12.3.a Applies appropriate behavior and etiquette to create and perform ballroom dance.

PE.HS.12.3.b Identifies the uniqueness of ballroom dance as a means of self-expression.

PE.HS.12.3.c Selects and participates in ballroom dance that meets the need for self-expression and enjoyment.

PE.HS.12.3.d Identifies the opportunity for social support in ballroom dance.

PE.HS.13 Dance Performance

PE.HS.13.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.13.1.a Creates and performs a dance sequence that uses a variety of dance elements to implement simple choreographic structures.

PE.HS.13.1.b Improvises to create and perform choreography with others (e.g., create cohesive transitions between phrases).

PE.HS.13.1.c Performs a choreographed dance individually and/or with others.

PE.HS.13.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.13.2.a Analyzes similarities and differences in various dance forms.

PE.HS.13.2.b Applies dance terminology to describe how elements of movement and choreographic structures are used to communicate ideas in dance (e.g., use written and verbal expression to analyze dance in response to dance observation, creation, and performance).

PE.HS.13.2.c Investigates dance opportunities that can be pursued in the local environment.

PE.HS.13.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.13.3.a Applies appropriate behavior and etiquette to choreograph and perform a variety of dance forms.

PE.HS.13.3.b Identifies the uniqueness of creative dance as a means of self-expression.

PE.HS.13.3.c Selects and participates in dance that meets the need for self-expression and enjoyment.

PE.HS.13.3.d Identifies the opportunity for social support in dance.

PE.HS.14 Lifetime Activities

PE.HS.14.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.14.1.a Performs and/or refines activity-specific movement skills in a variety of lifetime activities.

PE.HS.14.1.b Demonstrates competent skill performance of basic and advanced skills by scoring and preventing scoring as an individual/team within authentic settings of lifetime game activities.

PE.HS.14.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.14.2.a Applies class activities to a personal fitness plan.

PE.HS.14.2.b Investigates the benefits of lifetime activities and how they contribute to achieving and maintaining a health-enhancing level of physical activity and fitness.

PE.HS.14.2.c Applies appropriate strategies in a variety of lifetime activities.

PE.HS.14.2.d Applies appropriate tactical decisions in a variety of lifetime activities.

PE.HS.14.2.e Applies the rules and understanding of the terminology in a variety of lifetime activities.

PE.HS.14.2.f Communicates with teammates using proper terminology in a variety of lifetime activities.

PE.HS.14.2.g Analyzes and applies technology and social media as tools for supporting lifetime activities as part of a healthy, active lifestyle.

PE.HS.14.2.h Identifies issues associated with performing lifetime activities in heat, humidity, and cold.

PE.HS.14.2.i Analyzes the benefits, social support network, and participation requirements of lifetime activities that can be pursued in the local environment.

PE.HS.14.2.j Evaluates risk and safety factors that might affect lifetime physical activity preferences throughout the life cycle.

PE.HS.14.2.k Applies stress management strategies (e.g., mental imagery, deep breathing, meditation) for successful participation in lifetime activities.

PE.HS.14.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.14.3.a Employs effective self-management skills to analyze barriers and modify physical activity patterns in lifetime activities.

PE.HS.14.3.b Recognizes and performs modifications to lifetime activities, game expectations or behaviors to accommodate individuals with lesser or greater skills or special needs.

PE.HS.14.3.c Exhibits etiquette, respect for others, and teamwork while engaging in lifetime activities.

PE.HS.14.3.d Selects and participates in lifetime activities that meet the need for self-expression and enjoyment.

PE.HS.14.3.e Exhibits good sportsmanship and plays within the rules in a variety of lifetime activities.

PE.HS.15 Team Games

PE.HS.15.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.15.1.a Performs a variety of activity/sports specific movement skills at a mature level.

PE.HS.15.1.b Demonstrates competent skill performance of basic and advanced skills by scoring and preventing scoring as a team within authentic settings of invasion games, net/wall games, and/or striking and fielding games.

PE.HS.15.1.c Performs a variety of specialized skills in health-related fitness activities.

PE.HS.15.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.15.2.a Applies class activities to a personal fitness plan.

PE.HS.15.2.b Analyzes and applies technology and social media as tools for supporting team activities as part of a healthy and active adult lifestyle.

PE.HS.15.2.c Transfers knowledge of previously learned tactics and strategies to participate in similar and/or new team activities (e.g., games, sports, world games, innovative games).

PE.HS.15.2.d Creates strategies for successful participation in a variety of team activities.

PE HS.15.2.e Applies tactics to participate successfully in a variety of team activities.

PE.HS.15.2.f Applies knowledge of various team/player positions and their role(s) in the team game or activity.

PE.HS.15.2.g Applies the rules and understanding of terminology in a variety of team games.

PE.HS.15.2.h Communicates with teammates using proper terminology in a variety of team games.

PE.HS.15.2.i Adjusts physical activity level to keep heart rate in the target zone, using available technology (e.g., pedometer, heart rate monitor) to self-monitor aerobic intensity.

PE.HS.15.2.j Identifies issues associated with performing team games in heat, humidity, and cold.

PE.HS.15.2.k Applies stress-management strategies (e.g., mental imagery, deep breathing, meditation) for successful participation in team activities.

PE.HS.15.2.l Evaluates risk and safety factors that might affect team game activity preferences throughout the life cycle.

PE.HS.15.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.15.3.a Evaluates the barriers of team activities as it relates to living a healthy and active adult lifestyle.

PE.HS.15.3.b Recognizes and performs modifications to team activities, game expectations, or behaviors to accommodate individuals with lesser or greater skills or special needs.

PE.HS.15.3.c Utilizes communication skills and strategies to promote successful participation in team activities.

PE.HS.15.3.d Applies best practices for participating safely in team sports (e.g., injury prevention, proper alignment, hydration, use of equipment, implementation of rules, sun protection).

PE.HS.15.3.e Maintains appropriate demeanor throughout team games or activities (e.g., responding to winning or losing, accepting officials call, incidental physical contact, errors).

PE.HS.15.3.f Evaluates the opportunities for social interaction and social support provided by team activities.

PE.HS.16 Outdoor Pursuits

PE.HS.16.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.16.1.a Performs and/or refines activity specific skills in a variety of outdoor pursuits (e.g., kayaking, paddleboarding, fishing, geocaching, orienteering, camping, hiking, mountain biking, climbing, obstacle course, adventure activities, high elements).

PE.HS.16.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.16.2.a Applies terminology associated with participation in selected outdoor pursuits.

PE.HS.16.2.b Explores and participates in outdoor activities that can be pursued in the local environment.

PE.HS.16.2 c. Recognizes and performs modifications to outdoor pursuits, activity expectations, and behaviors to accommodate individuals with lesser or greater skills or special needs.

PE.HS.16.2.d Applies rates of perceived exertion and pacing.

PE.HS.16.2.e Identifies issues associated with participating in outdoor pursuits in heat, humidity, and cold.

PE.HS.16.2.f Analyzes the benefits, social support network, and participation requirements of outdoor activities that can be pursued in the local environment.

PE.HS.16.2.g Evaluates risk and safety factors that might affect outdoor pursuits throughout the life cycle.

PE.HS.16.2.h Analyzes and applies technology and social media as tools for supporting outdoor activities as part of a healthy and active adult lifestyle.

PE.HS.16.2.i Creates a snack plan for before, during, and after participation in outdoor pursuits that address nutrition and hydration needs for each phase.

PE.HS.16.2.j Applies stress management strategies (e.g., mental imagery, deep breathing, meditation) for successful participation in outdoor pursuits.

PE.HS.16.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.16.3.a Applies best practices for participating safely in outdoor pursuits.

PE.HS.16.3.b Analyzes the health benefits of self-selected outdoor pursuits.

PE.HS.16.3.c Evaluates the opportunities for social interaction and social support provided by outdoor pursuits.

PE.HS.16.3.d Solves problems and thinks critically in outdoor pursuits, both as an individual and in groups.

PE.HS.16.3.e Evaluates the barriers of outdoor pursuits as they relate to living a healthy, active adult lifestyle.

PE.HS.16.3.f Selects and participates in outdoor pursuits that meet the need for self-expression and enjoyment.

PE.HS.17 Lifeguard Training & Water Safety Instruction Aide

PE.HS.17.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.17.1.a Performs all lifeguarding rescue skills as required by American Red Cross (e.g., entries and approaches, active rescues, passive rescues, reaching assist).

PE.HS.17.1.b Performs all CPR/First Aid/AED skills as required by American Red Cross (e.g., ventilations, one-rescuer CPR, two-rescuer CPR, conscious choking, AED, control external bleeding).

PE.HS.17.1.c Applies the terminology associated with Water Safety.

PE.HS.17.1.d Applies the terminology associated with lifeguard skills staged in rescue situations.

PE.HS.17.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.17.2.a Evaluates risks and safety factors associated with aquatic activities in heat, humidity and cold (e.g., hydration, heat exhaustion, heat stroke, hypothermia, sun exposure).

PE.HS.17.2.b Evaluates risks and safety factors associated with aquatic environments.

PE.HS.17.2.c Applies best practices for participating safely in and around aquatic activities.

PE.HS.17.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.17.3.a Exhibits etiquette and respect for others while engaging in and around aquatic activity (e.g., customer service, instructing lessons).

PE.HS.17.3.b Utilizes communication skills and strategies that promote team/group dynamics (e.g., for patrons and team responses) in aquatic environments.

PE.HS.17.3.c Thinks critically and solves problems both as an individual and in groups in aquatic environments.

PE.HS.17.3.d Discusses the benefits of a physically active lifestyle as it relates to a career of lifeguarding.

PE.HS.18 Sport Officiating

PE.HS.18.1 Demonstrates competency in motor skills and movement patterns needed to perform a variety of physical activities.

PE.HS.18.1.a Applies officiating mechanics and positioning in a variety of sports (e.g., hand signals, motions, whistles, vocabulary).

PE.HS.18.1.b Demonstrates competency in rules and regulations in a variety of sports (e.g., making the right call).

PE.HS.18.1.c Identifies regulation court/field set up and equipment safety for a variety of sports (e.g., field checks).

PE.HS.18.1.d Applies appropriate terminology associated with each sport.

PE.HS.18.2 Applies knowledge of concepts, principles, tactics, and strategies related to movement and performance to achieve and maintain a health-enhancing level of physical activity and fitness.

PE.HS.18.2.a Designs and implements a plan to improve officiating performance.

PE.HS.18.2.b Evaluates risks and safety factors associated with exercising in heat, humidity, and cold (e.g., hydration, heat exhaustion, heat stroke, hypothermia, sun exposure).

PE.HS.18.2.c Applies stress management strategies (e.g., mental imagery, relaxation techniques, deep breathing, aerobic exercise, meditation).

PE.HS.18.3 Recognizes the benefits of physical activity and exhibits responsible personal and social behavior in a variety of physical activity settings.

PE.HS.18.3.a Exhibits etiquette and respect for others while officiating (e.g., customer service, crowd control).

PE.HS.18.3.b Utilizes communication skills and strategies that promote team/group dynamics (e.g., crowd, participant, and team responses).

PE.HS.18.3.c Thinks critically and solves problems both as an individual and in groups.

PE.HS.18.3.d Explains the benefits of a physically active lifestyle as it relates to a career of officiating.

NEBRASKA WORLD LANGUAGE STANDARDS

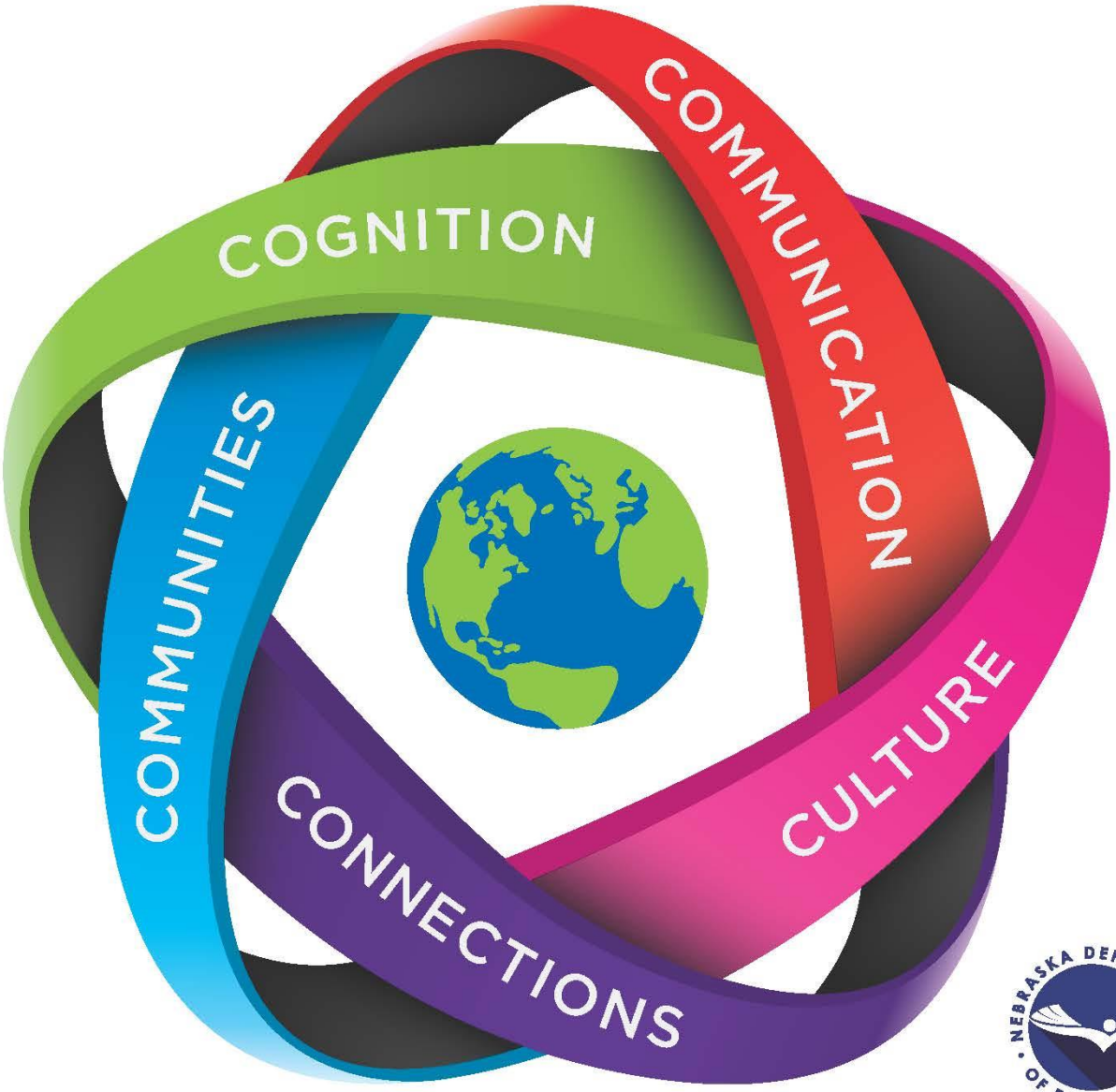


Table of Contents

Introduction 3
Content Area Standards 4
Using the 2019 Standards 4
Nebraska World Language Standards 10
Strand One: Communication 11
Strand Two: Culture 18
Strand Three: Connections 21
Strand Four: Communities 24
Strand Five: Cognition 27
Summary of World Language Strands and Standards 30

Introduction

Language and intercultural skills are critical in preparing our students to engage and thrive in the globally interconnected world in which we find ourselves. The ability to communicate with other nations and cultures is a matter of national security, economic growth, environmental sustainability, and social well-being.

In order to compete in the 21st century, Nebraska students must be able to communicate and interact effectively in at least one other language and culture. Life in our globally diverse society requires language and intercultural skills to work together with individuals from other cultures who speak other languages. Our state's economy strongly depends on international trade and businesses who require globally competent individuals who can communicate effectively to compete in a highly competitive global market. Issues of national security require highly qualified language speakers to negotiate and interact competently with other nations. Building social neighborhoods within our diverse communities are necessary to work together to provide a quality life for all.

The social and intercultural skills honed through the learning of another language, include collaborating, negotiating meaning, and mediating misunderstandings, are truly needed in a diverse, multilingual world where worldviews, cultural customs and traditions often clash. It is in world language classes that students access the manifestations of another culture, develop the ability to use language appropriately in social situations, and gain insights into others' perspectives and worldview. Research has found that learning another language, particularly at a young age, has significant cognitive benefits, such as increased memory function, critical thinking, and mind-mapping skills, creativity, and flexibility of mind. Studies have shown that students who are learning another language out-score their non-foreign language-learning peers in the verbal and math sections of standardized tests. By engaging in learning a world language, students build 21st century literacy skills essential for their future.

College readiness requires that students have the pre-requisite coursework for admission and the knowledge and skills to succeed in entry-level classes. Nebraska universities require world language learning for admission. To ensure successful post-secondary success and job-preparedness in gaining language and cultural proficiency, the Nebraska World Language Standards serve as guidelines for schools, teachers, students and other stakeholders to ensure that students' learning opportunities are standards and proficiency based.

The newly revised Nebraska World Language Standards are aligned with the *World Readiness Standards for Learning Languages* and were adapted specifically to assist Nebraska language programs, teachers and learners to establish criteria to optimize language and cultural proficiency for all learners.

Dr. Aleidine J. Moeller, Edith Greer Professor, University of Nebraska-Lincoln, President, American Council on the Teaching of Foreign Languages, 2018

Content Area Standards

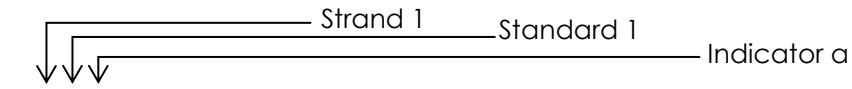
Nebraska Revised Statute 79-760.01 requires the Nebraska State Board of Education to "adopt measurable academic content standards for at least the grade levels required for statewide assessment" (Academic Content Standards, 2015). The statute specifies that those standards shall cover the subject areas of reading, writing, mathematics, science, and social studies, and, that the State Board of Education shall develop a plan to review and update standards for those subject areas every seven years. The revised statute is effective as of August 30, 2015. In addition to the content area standards required by statute, the Nebraska Department of Education (NDE) develops content area standards for Fine Arts, Physical Education, Health Education, and World Languages, as well as course-based content standards for Career and Technical Education. Although not required by law, the standards provide schools a framework for ensuring quality teaching and learning for all content areas offered in Nebraska schools.

The Nebraska World Language Standards describe the knowledge and skills that students should learn, but they do not prescribe particular curriculum, lessons, teaching techniques, or activities. These standards create a framework for teaching and learning, and they articulate a trajectory for knowledge acquisition across all grade levels. This ensures that student learning builds on prior knowledge and becomes more in-depth over time. Standards describe what students are expected to know and be able to do, while locally defined curriculum and instructional materials are used to help students master the standards.

Using the 2019 Standards

The overall structure of Nebraska's World Language Standards reflects the two-tier structure common across all Nebraska content area standards. The two levels include standards and indicators. Standards include broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of student learning. The standards are sorted by strands, which are essential components to world language learning. Indicators further describe what students must know and be able to do to at a specific level of language learning to meet the standard and provide guidance related to classroom instruction.

Reading the World Language Standards



WL1.1.a Novice Low

Strand: Students communicate effectively in a variety of situations for multiple purposes.

Standard: Students exchange information through interaction and negotiation of meaning.

Indicator: Participate in basic exchanges with isolated, high-frequency words, fragmented responses, or phrases.

Strands: The "Five C's" of World Language Learning

There are five strands or "essential components" of world language learning:

- **Communication**: Students communicate effectively in a variety of situations for multiple purposes.
- **Culture**: Students work with the language in a way that shows familiarity with and value for the cultures of the speakers of the language.
- **Connections**: Students use the language studied to reinforce and expand their knowledge, connecting language and cultural experiences to all content areas.
- **Communities**: Students can apply their world language skills to personal, community, and/or career experiences.
- **Cognition**: Students explain what they know and are able to monitor their own learning journey with support from their teachers.

Each of these strands is interwoven, existing in correlation with and dependent on the others. While these essential components, or strands, are presented distinctly, it is important to remember that they cannot be used independently. All must be present in any world language classroom.

Standards: The Expectations of World Language Learning

Each of the five strands contains several components that are long-term goals for learning. These broad, overarching content-based statements that describe the basic cognitive, affective expectations of students are standards. There are ten standards.

When a particular standard is not reflective of or responsive to an aspect of a specific language, accommodations can be made to create alternative expectations. Notations have been made after certain standards that may need special treatment in order to be applicable to specific language groups.

Indicators: Language Performance Expectations by Level

For each standard, there is an indicator that establishes the level of expectation appropriate for a given performance level. Indicators are not labeled by language courses. Course titles, such as "French Two", most often represent the level of progression in the district's world language curriculum and are often insufficient in describing the actual performance of students.

The Nebraska World Language Standards use three performance level indicators: novice, intermediate, and advanced. Each performance level indicator can be further divided into a low, mid, and high range. The definitions of novice, intermediate, and advanced are as follows:

DEFINITIONS OF PERFORMANCE LEVEL INDICATORS

Novice:

Novice students are beginning to use the language. Their performance is limited to words, phrases, and simple sentences on familiar or highly predictable topics. They may be difficult to understand. Novice listeners understand key words, true aural cognates, and formulaic expressions. Novice writers and speakers can use isolated words and phrases to identify typical cultural elements. They can use resources in the language to make connections to other content areas or to greater language communities by identifying predictable elements of a message, using cognates, and/or using extralinguistic supports. Novice learners identify and describe what they can do in language study using simple words and phrases.

Intermediate:

Intermediate students have gaps in knowledge but are able to use the language with an understanding of need and purpose. Intermediate listeners understand the main ideas and supporting details. Speakers can meet practical needs, ask and answer simple questions. Presenters can communicate information and express their own thoughts about familiar topics. Intermediate students can investigate, describe and compare their culture with those of the culture studied. These students can apply simple and concrete language to learning about other content areas and communicating within their greater language communities. They have created their own language goals and are able to articulate, if only in simple language, their personal language journey.

Advanced:

Advanced students are comfortable in using the language to provide details, to reflect, and to elaborate on both concrete and abstract information and ideas. Writers can write routine informal and some formal correspondence using major time frames, paraphrasing, and elaboration. Listeners can understand the main ideas and most details on variety of general interest topics. Readers understand a wide variety of texts characterized by one or more of the following: high level of abstraction, precision or uniqueness of vocabulary; density of information; cultural reference; or complexity of structure. Advanced students can use the language to navigate appropriately in various cultural settings within greater language communities. These students are able to analyze their language learning and to elaborate on their plans for the future.

Applying Performance Level Expectations for World Language Programming

As schools and districts move forward in establishing programming that aligns with the World Language Standards, they must first ask, "What is the ultimate expectation for language knowledge and skills at the completion of the world language program?" Once an ultimate goal has been determined, the school can dedicate the time and resources necessary to meet the goal. The critical factor to consider in this process is the level of language needed to negotiate successfully in life, careers, and academia.

Colleges and universities, and even individual departments within colleges and universities, have specific language entrance and graduation requirements. The average expectation is that incoming college freshmen will have had a minimum of two years of high school world language. This expectation, however, does not clarify the level of performance students should have. Colleges and universities usually conduct placement tests that allow students to enroll in their corresponding level of language study.

The ability to communicate in multiple languages has a proven economic value. Local, regional, national, and international markets are actively seeking employees who can respond to customers and negotiate agreements. In the graphic on the following page, The American Council on the Teaching of Foreign Languages shares a comparison of oral proficiency levels needed in the workplace in order to be career ready. Cashiers, sales clerks, and receptionists who wish to interact with clientele in a language other than English must be prepared to function at a level of Intermediate in the other language. A banking and investment customer service representative, medical interpreter, and human resource benefit specialist must be prepared to function at a level of Advanced.

Technical language, or language specific to a given profession or skill, is the ultimate preparation to apply language to careers or to community life. However, technical language classes require a strong foundation in the language and in the technical or career skill area.

Not to be disregarded, the ability to function bilingually also strongly affects one's quality of life. Language function dramatically increases cognitive function well into older age, Bilinguals have greater ability to see and understand nuances, to investigate actively, to use critical thinking, and to seek a more profound level of communication.

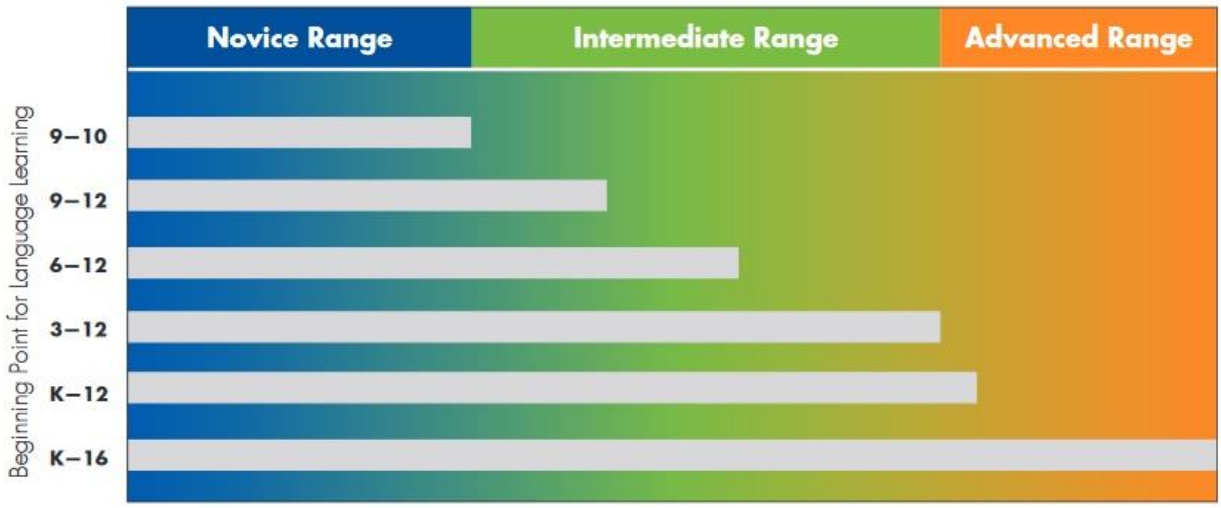
ORAL PROFICIENCY LEVELS IN THE WORKPLACE

ACTFL Level	ILR	Language Functions	Corresponding Professions/Positions*	Examples of Who Is Likely to Function at This Level
Distinguished	5 4	*Ability to tailor language to specific audience, persuade, negotiate. Deal with nuance and subtlety.*	Foreign Service: Diplomat, Contract Negotiator, International Specialist, Intelligence Specialist	• Highly articulate, professionally specialized native speakers • Language learners with extended (17 years) and current professional and/or educational experience in the target culture
Superior	3	*Discuss topics extensively, support opinions, hypothesize. Deal with linguistically unfamiliar situations.*	University Language Professor, Financial Services Marketing Consultant, Foreign Area Officer, Lawyer, Judge, Court Interpreter	• Well-educated native speakers • Educated language learners with extended professional and/or educational experience in the target language environment
Advanced High	2+	*Narrate and describe in past, present, and future. Deal effectively with an unanticipated complication.*	Physician, Human Resources Communications Consultant, Financial Services Senior Consultant, Quality Assurance Specialist, Marketing Manager, Financial Advisor, Broker, Military Linguist, Translation Officer	• Language learners with graduate degrees in language or a related area and extended educational experience in target environment
Advanced Mid			Banking and Investment Services Customer Service Representative, Fraud Specialist, Account Executive, Medical Interpreter, Patient Advocate, Court Stenographer, Court Interpreter, Human Resources Benefits Specialist, Technical Service Agent, Collections Representative, Estimating Coordinator	• Heritage speakers, informal learners, non-academic learners who have significant contact with language • Undergraduate majors with year-long study in the target language culture
Advanced Low	2		K–12 Language Teacher, Nurse, Social Worker, Claims Processor, Police Officer, Maintenance Administrator, Billing Clerk, Legal Secretary, Legal Receptionist, 911 Dispatcher, Consumer Products Customer Services Representative, Retail Services Personnel	• Undergraduate language majors
Intermediate High	1+	*Create with language, initiate, maintain, and bring to a close simple conversations by asking and responding to simple questions.*	Fire Fighter, Utilities Installer, Auto Inspector, Aviation Personnel, Missionary, Tour Guide	• Language learners following 6–8 year sequences of study (e.g., AP) or 4–6 semester college sequences
Intermediate Mid			Cashier, Sales Clerk (highly predictable contexts), Receptionist	
Intermediate Low	1			• Language learners following 4-year high school sequence or 2-semester college sequence • Language learners following an immersion language program in Grades K–6
Novice High	0+	*Communicate minimally with formulaic and rote utterances, lists, and phrases.*		• Language learners following content-based language program in Grades K–6
Novice Mid	0			• Language learners following 2 years of high school language study
Novice Low				

*The levels of proficiency associated with each of the positions above are minimal levels of oral proficiency based on task analyses. The minimal levels were determined by subject matter experts from companies and agencies who use ACTFL proficiency tests.

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Once a district has determined an expectation for the ultimate level of language performance, programming needs will be considered. There is a definite correlation between the level of language expectation and the amount of time given to study and practice. The following model, provided by the American Council on the Teaching of Foreign Languages, shows how time is a critical component to developing language performance.



Source: "Figure 4: Time as a Critical Component for Developing Language Performance", ACTFL Performance Descriptors for Language Learners, 2012 Edition, Alexandria, VA: ACTFL, p. 6.

Students with twelve years of language study will be able to communicate information, express their thoughts, investigate, describe and elaborate on both concrete and abstract information and ideas. These students will find success using language daily in teaching, social services, medical careers, retail, and business.

In equipping students to be community volunteers, world travelers, entrepreneurs, and communicators, it is important to remember the correlation between time and ability. Essentially, a stronger investment in the duration and depth of a language program will result in higher and more useful levels of language performance.

Nebraska World Language Standards

Strand One: Communication (p. 10)
Students communicate effectively in a variety of situations for multiple purposes.

1.1 Students exchange information through interaction and negotiation of meaning.

1.2 Students understand, interpret, and analyze what is heard, read, or viewed on a variety of topics.

1.3 Students present ideas and information according to a variety of purposes and audiences.

Strand Two: Culture (p. 17)
Students work with the language in a way that shows familiarity with and value for the cultures of the speakers of the language.

2.1 Students use the language to observe and to discuss the relationship between the products, practices and perspectives of the cultures studied.

2.2 Students identify and apply culturally-appropriate language and behavior.

Strand Three: Connections (p. 20)
Students use the language studied to reinforce and expand their knowledge, connecting language and cultural experiences to all content areas.

3.1 Students apply the language of study to discuss other content areas of study.

Strand Four: Communities (p. 23)
Students can apply their world language skills to personal, community, and career experiences.

4.1 Students use knowledge and skills gained in the language to identify and create a personal education and/or career plan.

4.2 Students use digital tools in the language of study to further language study and/or to connect with a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.

Strand Five: Cognition (p. 26)
Students explain what they know and are able to monitor their own learning journey with support from their teachers.

5.1 Students self-assess growth in language learning, practice, and understanding.

5.2 Students set language learning goals and organize priorities.

Strand One: Communication

Students communicate effectively in a variety of situations for multiple purposes.

Key point:

- Students should use language for a meaningful, communicative purpose.

Communication is the most elemental purpose of language learning. As simple as a child's first word or as complex as a discourse on the impacts of science and technology, communication is invariably tied to need, situation, purpose, and mode. These concepts are represented in later strands. Strand One focuses on the dexterity of manipulating the language and language structures in various modes of communication. The Modes of Communication are Interpersonal, Interpretive, and Presentational. The Interpersonal Mode represents negotiation of information among two or more parties. The Interpretive Mode requires an interpretation of meaning. The Presentational Mode refers to the creation of a message that others will have to interpret. All modes of communication might be conducted in written or oral format.

WL 1.1: **Students exchange information through interaction and negotiation of meaning.**

WL1.1.a Novice Low

Participate in basic exchanges with isolated, high-frequency words, fragmented responses, or phrases.

WL1.1.b Novice Mid

Participate in basic exchanges in structured contexts about familiar and predictable topics using high-frequency vocabulary and phrasing.

WL 1.1.c Novice High

Participate in basic exchanges by constructing simple questions and answers using familiar vocabulary and language structures.

WL 1.1.d Intermediate Low

Initiate, sustain, and conclude exchanges about familiar topics in structured settings and formats.

WL 1.1.e Intermediate Mid

Initiate, sustain, and conclude exchanges about familiar topics with focused structures in a series of connected sentences.

WL 1.1.f Intermediate High

Initiate, sustain, and conclude exchanges in a variety of situations on familiar topics by manipulating advanced vocabulary and language structures.

WL 1.1.g Advanced Low

Engage in unplanned exchanges and discussions on a variety of familiar and unfamiliar concrete topics.

WL 1.1.h Advanced Mid

Engage in unplanned, in-depth exchanges and discussions on a variety of concrete and abstract topics across all major time frames.

WL 1.1.i Advanced High

Engage in unplanned, in-depth exchanges by applying social and cultural norms on concrete and abstract topics, across all major time frames.

Specific Considerations for Ancient and Classical Languages (ACL):

The 2017 Standards for Classical Language Learning state, "There are philosophical differences that govern the various approaches to using interpersonal communications in the Latin classroom. Some teachers use interpersonal communication intermittently, some use it frequently, and some use it as the basis of the entire educational platform. There is growing evidence that the use of spoken Latin in the classroom facilitates student comprehension of the language, which facilitates reading it. Whichever approach a teacher uses will determine the ultimate level of proficiency that learners attain in the interpersonal mode."

Specific Considerations for Heritage Language/Native Speaker and Dual Language Courses:

Student diversity in experience and academic preparation can strongly impact any heritage language/native speaker classroom. Students who have extremely limited or no preparation in a heritage language may be considered second language learners and use these standards accordingly. However, students who have acquired a heritage language at home or who have academic experience in another language may be better served with standards that more closely align with first language acquisition. While it is not likely that any resource will exactly replicate the Nebraska World Language Standards, resources such as the WIDA Consortium's "Can Do Descriptors" may provide a richer expectation for heritage language study.

Comparison of Nebraska World Language Standards and WIDA's "Los Descriptores Podemos".

Nebraska World Language Standard 1.1: Students exchange information through interaction and negotiation of meaning. WIDA "Los Descriptores Podemos" Concrete Use of Language "Discutir" Descriptor: Dialogue and converse with others in order to jointly create knowledge and deepen understanding.
Nebraska WL1.1.a Novice Low Participate in basic exchanges with isolated, high-frequency words, fragmented responses, or phrases. WIDA "Podemos" (translated), Grade 1, Level 1 Discussion, Oral: Use drawings or other visual media to share or clarify ideas. Follow the rules of appropriate conversation (i.e.: listening attentively to others, speaking one at a time)
Nebraska WL1.1.d Intermediate Low Initiate, sustain, and conclude exchanges about familiar topics in structured settings and formats. WIDA "Podemos" (translated), Grade 6-8, Level 1 Discussion, Oral: Follow the appropriate rules of the context of discussion. (i.e.: taking turns). Prepare notes or written contributions.
Nebraska WL1.1.g Advanced Low Engage in unplanned exchanges and discussions on a variety of familiar and unfamiliar concrete topics. WIDA "Podemos" (translated), Grade 9-12, Level 1 Discussion, Oral: Prepare points or commentary in order to participate in the conversation. Use images or other supports to support your message or commentary.

Source: *Los Descriptores Podemos*. WIDA, 2016, *Los Descriptores Podemos*.

WL 1.2: **Students understand, interpret, and analyze what is heard, read, or viewed on a variety of topics.**

WL1.2.a Novice Low

Identify isolated words and phrases of messages containing high-frequency vocabulary, predictable language structures, and/or extra-linguistic support.

WL1.2.b Novice Mid

Identify elements of the explicit meaning of messages containing high-frequency vocabulary, predictable language structures, and/or extra-linguistic support.

WL 1.2.c Novice High

Identify the explicit meaning of messages containing high-frequency vocabulary, predictable language structures, and/or extra-linguistic support.

WL 1.2.d Intermediate Low

Comprehend the main idea and some supporting details of messages on familiar topics that contain familiar vocabulary and language structures.

WL 1.2.e Intermediate Mid

Comprehend the main idea and some supporting details of messages on familiar topics that contain contextualized or familiar vocabulary and language structures.

WL 1.2.f Intermediate High

Comprehend and summarize main idea and some supporting details of messages on familiar topics that may contain low-frequency vocabulary, complex language structures, and/or contextual clues.

WL 1.2.g Advanced Low

Analyze the implicit meaning literal meaning, and purpose of messages containing low-frequency vocabulary, complex language structures, and/or contextual clues.

WL 1.2.h Advanced Mid

Analyze the implicit meaning literal meaning, and purpose of messages containing contextualized interdisciplinary and/or unfamiliar vocabulary within complex language structures.

WL 1.2.i Advanced High

Analyze the implicit meaning literal meaning, and purpose of messages containing interdisciplinary and/or unfamiliar vocabulary within complex language structures.

Specific Considerations for Heritage Language/Native Speaker and Dual Language Courses:

Student diversity in experience and academic preparation can strongly impact any heritage language/native speaker classroom. Students who have extremely limited or no preparation in a heritage language may be considered second language learners and use these standards accordingly. However, students who have acquired a heritage language at home or who have academic experience in another language may be better served with standards that more closely align with first language acquisition. While it is not likely that any resource will exactly replicate the Nebraska World Language Standards, resources such as the WIDA Consortium's "Can Do Descriptors" may provide a richer expectation for heritage language study.

Comparison of Nebraska World Language Standards and WIDA's "Los Descriptores Podemos".

Nebraska World Language Standard 1.2: Students understand, interpret, and analyze what is heard, read, or viewed on a variety of topics WIDA "Los Descriptores Podemos" Concrete Use of Language "Relatar" Descriptor: Demonstrate knowledge and narrate experiences or events.
Nebraska WL1.2.a Novice Low Identify isolated words and phrases of messages containing high-frequency vocabulary, predictable language structures, and/or extra-linguistic support. WIDA "Podemos" (translated), Grade 1, Level 1 Relating, Listening: Identify words related to characters, animals or objects described orally. WIDA "Podemos" (translated), Grade 1, Level 1 Relating, Reading: Identify main characters. Recognize familiar or memorized language.
Nebraska WL1.2.d Intermediate Low Comprehend the main idea and some supporting details of messages on familiar topics that contain familiar vocabulary and language structures. WIDA "Podemos" (translated), Grade 6-8, Level 1 Relating, Listening: Identify familiar objects or places in oral presentations. WIDA "Podemos" (translated), Grade 1, Level 1 Relating, Reading: Identify principle ideas in short texts. Point out texts and posters in the classroom and school that are related to familiar stories.
Nebraska WL1.2.g Advanced Low Analyze the implicit meaning literal meaning, and purpose of messages containing low-frequency vocabulary, complex language structures, and/or contextual clues. WIDA "Podemos" (translated), Grade 9-12, Level 1 Relating, Listening: Match common and technical words and expressions with images, photos, and graphics. Identify texts, resources, products or named figures from oral presentations. WIDA "Podemos" (translated), Grade 9-12, Level 1 Relating, Reading: Highlight descriptive words and expressions in short statements. Identify formatting components in order to locate information.

Source: *Los Descriptores Podemos*. WIDA, 2016, *Los Descriptores Podemos*.

WL 1.3: **Students present ideas and information according to a variety of purposes and audiences.**

WL1.3.a Novice Low

Present information on familiar and everyday topics using isolated, high-frequency words and phrases in highly structured contexts.

WL1.3.b Novice Mid

Present information on familiar and predictable topics using high-frequency vocabulary and phrases in structured contexts.

WL 1.3.c Novice High

Present information on familiar and everyday topics using simple sentences in structured contexts.

WL 1.3.d Intermediate Low

Express personal meaning by combining and recombining familiar vocabulary and language structures in short statements and discrete sentences.

WL 1.3.e Intermediate Mid

Express personal meaning on familiar topics by creating combinations of language and structure specific to purpose and audience.

WL 1.3.f Intermediate High

Express personal meaning on familiar and unfamiliar topics using known language to compensate for higher vocabulary.

WL 1.3.g Advanced Low

Create and deliver information on familiar and unfamiliar topics, using descriptive vocabulary and organized ideas across various time frames.

WL 1.3.h Advanced Mid

Create and deliver information on familiar and unfamiliar topics, using focused or context-specific vocabulary and organized and detailed ideas across most major time frames.

WL 1.3.i Advanced High

Create and deliver information on familiar and unfamiliar topics, elaborating and clarifying detailed and organized ideas.

Specific Considerations for Ancient and Classical Languages (ACL):

The 2017 Standards for Classical Language Learning state, "The presentational mode focuses on the creation of messages to inform, to tell a story, to give an explanation, or to persuade…Communication in the presentational mode may include writing, speaking, or a combination of one of these with visual communication."

Specific Considerations for Heritage Language/Native Speaker and Dual Language Courses: Student diversity in experience and academic preparation can strongly impact any heritage language/native speaker classroom. Students who have extremely limited or no preparation in a heritage language may be considered second language learners and use these standards accordingly. However, students who have acquired a heritage language at home or who have academic experience in another language may be better served with standards that more closely align with first language acquisition. While it is not likely that any resource will exactly replicate the Nebraska World Language Standards, resources such as the WIDA Consortium's "Can Do Descriptors" may provide a richer expectation for heritage language study.

Comparison of Nebraska World Language Standards and WIDA's "Los Descriptores Podemos".

Nebraska World Language Standard 1.3: Students present ideas and information according to a variety of purposes and audiences. WIDA "Los Descriptores Podemos" Concrete Use of Language "Relatar" Descriptor: Demonstrate knowledge and narrate experiences or events.
Nebraska WL1.3.a Novice Low Present information on familiar and everyday topics using isolated, high-frequency words and phrases in highly structured contexts. WIDA "Podemos" (translated), Grade 1, Level 1 Relating, Speaking: Name words that represent familiar objects. Repeat short, typical phrases in oral narrations. WIDA "Podemos" (translated), Grade 1, Level 1 Relating, Writing: Draw and tag academic events or situations. Tag story scenes using key words.
Nebraska WL1.3.d Intermediate Low Express personal meaning by combining and recombining familiar vocabulary and language structures in short statements and discrete sentences. WIDA "Podemos" (translated), Grade 6-8, Level 1 Relating, Speaking: Name school and community events using visual supports. Respond to simple, closed questions relating to familiar topics. WIDA "Podemos" (translated), Grade 1, Level 1 Relating, Writing: Reproduce words and brief phrases related to familiar topics. Tag photos and illustrations that represent ideas studied in class.
Nebraska WL1.3.g Advanced Low Create and deliver information on familiar and unfamiliar topics, using descriptive vocabulary and organized ideas across various time frames. WIDA "Podemos" (translated), Grade 9-12, Level 1 Explaining, Speaking: Use technical vocabulary to explain processes, cycles, or phenomena. WIDA "Podemos" (translated), Grade 9-12, Level 1 Explaining, Writing: Describe photos, illustrations, and models using technical vocabulary. Explain historical events or events in sequence.

Source: *Los Descriptores Podemos*. WIDA, 2016, *Los Descriptores Podemos*.

Strand Two: Culture

Students work with the language in a way that shows familiarity with and value for the cultures of the speakers of the language.

Key points:

- The culture of the target language is fundamental to all language instruction and can be taught through implicit instruction as well as explicit instruction.
- Elements of culture can, and should be, taught in the target language whenever appropriate and feasible.
- Learners must have insight into cultural perspectives, and the ability to behave appropriately in a variety of cultural contexts, in order to be effective communicators.

Interculturality is the ability to understand the underlying histories, values, attitudes, beliefs, practices, and views that affect communication and understanding among people. It is the essence of 'it's not what was said; but how it was said'. Strand Two illustrates that true language proficiency requires an awareness of and familiarity with the connotations, social cues, and perceptions associated with language in order to communicate the desired message. Intercultural competence often results in empathy, closer introspection, greater self-awareness, and active listening.

WL 2.1: **Students use the language to observe and to discuss the relationship between the products, practices and perspectives of the cultures studied.**

WL2.1.a Novice Low

Identify and describe products, practices and perspectives using isolated words and phrases.

WL2.1.b Novice Mid

Identify products, practices, and perspectives using high-frequency vocabulary and phrases.

WL 2.1.c Novice High

Identify and describe products, practices, and perspectives using simple sentences in structured contexts.

WL 2.1.d Intermediate Low

Investigate, compare, and provide insight into products, practices, and perspectives using familiar vocabulary and limited language structures.

WL 2.1.e Intermediate Mid

Investigate and compare products, practices, and perspectives using familiar vocabulary and creating combinations of limited and advanced language structures.

WL 2.1.f Intermediate High

Investigate and compare products, practices, and perspectives using advanced language structures and known language to compensate for unfamiliar vocabulary.

WL 2.1.g Advanced Low

Analyze the products, practices and perspectives of various groups using descriptive vocabulary and organized ideas.

WL 2.1.h Advanced Mid

Analyze and explain the products, practices and perspectives of various groups using focused or context-specific vocabulary and organized and detailed ideas.

WL 2.1.i Advanced High

Analyze and explain the products, practices and perspectives of various groups using interdisciplinary and/or unfamiliar vocabulary within complex language structures.

Specific Considerations for Ancient and Classical Languages (ACL):

Although many common products have been lost to historical record, it may be possible to investigate historical artifacts. Possible products include: clothing, jewelry, dwellings, sports, literature, artwork, tools, pottery. Products may be discoverable through ancient artwork, ruins, or other artefacts.

WL 2.2: **Students identify and apply culturally-appropriate language and behavior.**

WL2.2.a Novice Low

Identify expressions unique to the cultures studied.

WL2.2.b Novice Mid

Identify and react with simple expressions and idioms unique to the languages and cultures studied.

WL 2.2.c Novice High

Identify and respond with culturally appropriate simple expressions in everyday situations in structured or highly predictable situations.

WL 2.2.d Intermediate Low

Interact with culturally appropriate learned behaviors, familiar vocabulary, and limited language structures appropriate to the social context in everyday or common scenarios.

WL 2.2.e Intermediate Mid

Interact with culturally appropriate learned behaviors, familiar vocabulary and combinations of limited and advanced language structures.

WL 2.2.f Intermediate High

Interact with culturally appropriate learned behaviors, advanced language structures and known language to compensate for unfamiliar vocabulary.

WL 2.2.g Advanced Low

Participate in intercultural situations that require the appropriate application of vocabulary, politeness or style in a given situation using familiar language.

WL 2.2.h Advanced Mid

Participate in intercultural situations that require the appropriate application of vocabulary, politeness or style in a given situation using both familiar and unfamiliar language.

WL 2.2.i Advanced High

Participate appropriately and effectively in intercultural situations that require the appropriate application of vocabulary, register, courtesy or style in any given situation.

Specific Considerations for Ancient and Classical Languages (ACL):

Daily life, idioms, and regional variations in the language may not have been recorded or may not be available to allow students to interact with these elements today. ACL educators are encouraged to present and discuss what unique expressions, idioms, and cultural language points are available.

Strand Three: Connections

Students use the language studied to reinforce and expand their knowledge, connecting language and cultural experiences to all content areas.

Key Points:

- Scaffolding and structure support the use of appropriately chosen authentic materials.
- Using authentic materials contextualizes the language, expands lexicon through production, and validates the learning of the language and the learning of the content.

Languages bring the power to communicate a message to an exponentially larger audience. Languages are a mechanism that support access to resources, opportunities, and careers. In making connections to other content areas, students will expand vocabulary, contextualize the language, and begin to seek out a pathway to personalized language learning. Strand One and Strand Two are about the finesse and use of language. Strand Three and Strand Four are about the purpose of language study: to make connections, and to apply the skills students have learned.

WL 3.1: **Students apply the language of study to discuss other content areas of study.**

WL3.1.a Novice Low

Apply isolated words and phrases to accomplish tasks or show understanding of concepts in other content areas and/or situations beyond the classroom.

WL3.1.b Novice Mid

Apply high-frequency vocabulary and predictable language structures to accomplish tasks or show understanding of concepts in other content areas and/or situations beyond the classroom.

WL 3.1.c Novice High

Apply familiar vocabulary and simple sentences to accomplish tasks or show understanding of concepts in other content areas and/or situations beyond the classroom.

WL 3.1.d Intermediate Low

Describe familiar concepts and tasks from other content areas and/or situations beyond the classroom using familiar vocabulary and language structures in short, connected sentences.

WL 3.1.e Intermediate Mid

Describe familiar concepts and tasks from other content areas and/or situations beyond the classroom by creating combinations of limited and higher-level language structures in short, connected sentences.

WL 3.1.f Intermediate High

Describe familiar concepts and tasks from other content areas and/or situations beyond the classroom using higher-level language structures and known language to compensate for unfamiliar vocabulary.

WL 3.1.g Advanced Low

Synthesize concepts and engage in tasks from other content areas and/or situations beyond the classroom using low-frequency vocabulary, higher-level language structures, and various time frames.

WL 3.1.h Advanced Mid

Synthesize concepts and engage in tasks from other content areas and/or situations beyond the classroom using interdisciplinary and/or unfamiliar vocabulary with higher-level language structures and various time frames.

WL 3.1.i Advanced High

Synthesize concepts and engage in tasks from other content areas and/or situations beyond the classroom using interdisciplinary and/or unfamiliar vocabulary with advanced language structures and various time frames.

Specific Considerations for Heritage Language/Native Speaker and Dual Language Courses:

Student diversity in experience and academic preparation can strongly impact any heritage language/native speaker classroom. Students who have extremely limited or no preparation in a heritage language may be considered second language learners and use these standards accordingly. However, students who have acquired a heritage language at home or who have

academic experience in another language may be better served with standards that more closely align with first language acquisition. While it is not likely that any resource will exactly replicate the Nebraska World Language Standards, resources such as the WIDA Consortium's "Can Do Descriptors" or "Spanish Language Development Standards" may provide a richer expectation for heritage language study.

Nebraska WL 3.1: Students apply the language of study to discuss other content areas of study. → WIDA Spanish Language Development Standards ↓	WL3.1.a Novice Low Apply isolated words and phrases to accomplish tasks or show understanding of concepts in other content areas and/or situations beyond the classroom. WL 3.1.i Advanced High Synthesize concepts and engage in tasks from other content areas and/or situations beyond the classroom using interdisciplinary and/or unfamiliar vocabulary with advanced language structures and various time frames.
Standard 1: Social and Instructional Language Emergent bilinguals communicate for social and instructional purposes within the school setting	Grade 1, Level 1 Follow oral instructions using modeling and sensory supports and partner engagement. Grade 11-12, Level 1 Sort information found in illustrated texts with a partner using graphic organizers and following a model.
Standard 2 – The Language of Language Arts Emergent bilinguals communicate information, ideas and concepts necessary for academic success in the content area of language arts	Grade 1, Level 1 Describe the use of syntactic aspects using sentence schemas, word banks, and with support from L1. Grade 11-12, Level 1 Create a graphic legend using literary resources and continuing to use interactive models and supports, including L1 and L2.
Standard 3 – The Language of Mathematics Emergent bilinguals communicate information, ideas and concepts necessary for academic success in the content area of mathematics	Grade 1, Level 1 Identify strategies according to the information graphic texts using sensory supports and L1. Grade 11-12, Level 1 Label the steps to solve quadratic equations using banks of illustrated words.
Standard 4 – The Language of Science Emergent bilinguals communicate information, ideas and concepts necessary for academic success in the content area of science	Grade 1, Level 1 Draw and label illustrations of observations of experiments using Banks of illustrated words. Grade 11-12, Level 1 Identify the effects of the pollutants presented in an oral discourse and in banks of illustrated words to complete a scheme.
Standard 5 – The Language of Social Studies Emergent bilinguals communicate information, ideas and concepts necessary for academic success in the content area of social studies	Grade 1, Level 1 Name an advantage of the use of means of transport using audio-visual aids, models, banks of illustrated words and L1 if necessary. Grade 11-12, Level 1 Name the advantages and disadvantages of economic systems using sentence frames and word banks in L1 and L2.

Source: *WIDA Spanish Language Development Standards*. WIDA, 2013, *The Spanish Language Development Standards*

Strand Four: Communities

Students can apply their world language skills to personal, community, and career experiences.

Key Points:

- Providing a connection to world languages outside of the school setting is critical to student motivation and engagement.
- Community involvement builds empathy, respect for diversity, and self-awareness.
- When there is an awareness of the world, it is far easier to find one's place within it.

Our global world and impact continue to expand. Language skills bring global connections closer to home, allowing students to connect across the world or at the market on the corner. Strand Four emphasizes participation in multilingual communities around us. With another language, students can be aware of the world and their role within it, have an understanding of community needs and concerns, and be able to take responsibility for their development as a member of their community.

WL 4.1: **Students use knowledge and skills gained in the language to identify and create a personal education and/or career plan.**

WL4.1.a Novice Low

Identify college and career options that incorporate the language studied using isolated words and phrases.

WL4.1.b Novice Mid

Identify college and career options that incorporate the language studied using high-frequency vocabulary and predictable language structures.

WL 4.1.c Novice High

Identify college and career options that incorporate the language studied using familiar vocabulary and simple sentences.

WL 4.1.d Intermediate Low

Relate, evaluate and summarize personal interests, skills, and values using familiar vocabulary and language structures in short, connected sentences.

WL 4.1.e Intermediate Mid

Relate and describe careers that align with personal skills and interests by creating combinations of limited and higher-level language structures in short, connected sentences.

WL 4.1.f Intermediate High

Relate training, education, and/or certification requirements for careers of interest using higher-level language structures and known language to compensate for unfamiliar vocabulary.

WL 4.1.g Advanced Low

Develop and list educational and career connections to a personal plan of language learning using low-frequency vocabulary and higher-level language structures.

WL 4.1.h Advanced Mid

Develop and describe educational and career connections to a personal plan of language learning that aligns with personal skills and interests using interdisciplinary and/or unfamiliar vocabulary with higher-level language structures.

WL 4.1.i Advanced High

Develop and appraise educational and career connections to a personal plan of language learning that aligns with personal skills and interests using interdisciplinary and/or unfamiliar vocabulary with advanced language structures.

WL 4.2: **Students use digital tools in the language of study to further language study and/or to connect with a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.**

WL4.2.a Novice Low

Use digital tools to select, categorize, and paraphrase information that tends to use isolated, high-frequency words and/or phrases and extra-linguistic supports.

WL4.2.b Novice Mid

Use digital tools to select, categorize, and paraphrase information that tends to use high-frequency words and phrases in structured contexts.

WL 4.2.c Novice High

Use digital tools to select, categorize, and paraphrase information that tends to use simple sentences in structured formats on familiar or highly contextualized topics.

WL 4.2.d Intermediate Low

Use digital tools to comment, organize, and compare information in a way that expresses personal meaning using combinations of familiar vocabulary and language structures in short statements.

WL 4.2.e Intermediate Mid

Use digital tools to comment, organize, and compare information in a way that expresses personal meaning using combinations of familiar vocabulary and language structures in connected sentences.

WL 4.2.f Intermediate High

Use digital tools to comment, organize, and compare information in a way that expresses personal meaning using known language to compensate for higher vocabulary.

WL 4.2.g Advanced Low

Use digital tools to design solutions, synthesize information, and moderate information in a way that requires an understanding of literal and implicit meaning, low-frequency vocabulary, complex language structures, and/or contextual clues.

WL 4.2.h Advanced Mid

Use digital tools to design solutions, synthesize information, and moderate information in a way that requires an understanding of literal and implicit meaning, contextualized interdisciplinary and/or unfamiliar vocabulary, and complex language structures.

WL 4.2.i Advanced High

Use digital tools to design solutions, synthesize information, and moderate information in a way that requires an understanding of literal and implicit meaning, interdisciplinary and/or unfamiliar vocabulary, and complex language structures.

Strand Five: Cognition

Students explain what they know and are able to monitor their own learning journey with support from their teachers.

Key Points:

- Learning is a partnership between the student and the teacher.
- Learning to learn establishes processes and connections that more efficiently route information to its destination.
- Using the language of study to define expectations, discuss language acquisition, and to set learning goals increases the ability to place language in context.
- Taking an active role in planning for language study propels students to higher levels of proficiency.

First language learning and acquisition is a process that begins in infancy and lasts a lifetime. Second language learning and acquisition is both similar and more dynamic than first language learning. Language learning is the natural absorption of language that is firmly rooted in situational and contextual surroundings. Infants come to associate "mama", "papa", and "bottle" with things that they need. Language acquisition is a formalized study of language and its functions. It will be years before those same children understand "nouns" and can manipulate them in sentences. Strand Five serves to help educators and students remember that language learning and acquisition is a process. By learning the cognition of language study, students will be better able to engage in and take responsibility for their own learning.

WL 5.1: **Students self-assess growth in language learning, practice, and understanding.**

WL5.1.a Novice Low

Use isolated words, phrasing, or images to identify what concepts, skills, or information have been learned.

WL5.1.b Novice Mid

Use simple words or phrasing to identify what concepts, skills, or information have been learned.

WL 5.1.c Novice High

Use simple sentences or structures to identify and describe what concepts, skills, or information have been learned.

WL 5.1.d Intermediate Low

Reflect on how personal learning, practice, and understanding are evident.

WL 5.1.e Intermediate Mid

Reflect on how personal learning, practice, and understanding are evident and how learning might be improved.

WL 5.1.f Intermediate High

Reflect on personal learning, practice, and understanding in response to pre-determined goals, outcomes, or expectations.

WL 5.1.g Advanced Low

Analyze how personal learning, practice, and understanding have developed over time.

WL 5.1.h Advanced Mid

Analyze how personal learning, practice, and understanding have, or have not, prepared for future growth.

WL 5.1.i Advanced High

Analyze how personal learning, practice, and understanding can be sustained for future growth.

WL 5.2: **Students set language learning goals and organize priorities.**

WL5.2.a Novice Low

Identify what concepts, skills, or information are desired using isolated words, phrasing, or images.

WL5.2.b Novice Mid

Identify what concepts, skills, or information are desired using simple words or phrasing.

WL 5.2.c Novice High

Identify and describe what concepts, skills, or information are desired using simple sentences or guided models.

WL 5.2.d Intermediate Low

Create simple, short-term goal statements in response to units of study or other focused needs.

WL 5.2.e Intermediate Mid

Create simple, measurable, attainable, relevant, and timely goals using guided models in response to units of study or other focused needs.

WL 5.2.f Intermediate High

Create simple, measurable, attainable, relevant, and timely goals that are supported by explanation and are in response to units of study or other focused needs.

WL 5.2.g Advanced Low

Produce long-term measurable, attainable, relevant, timely goals that reflect personal interest and future plans.

WL 5.2.h Advanced Mid

Produce long-term measurable, attainable, relevant, timely goals with detailed steps that support the achievement of the goals.

WL 5.2.i Advanced High

Produce, explain, and analyze the success of long-term measurable, attainable, relevant, timely goals that reflect personal interest and future plans.

Summary of World Language Strands and Standards

The World Language Standards represent all languages, for all learners, at all levels. Although each language group has distinct linguistic components, these standards are meant to provide direction in the kinds of skills that students should accomplish at a particular level. When a particular standard is not reflective of or responsive to an aspect of a specific language, accommodations can be made to create alternative expectations.

Students communicate effectively in a variety of situations for multiple purposes.

- 1.1 Students exchange information through interaction and negotiation of meaning.
- 1.2 Students understand, interpret, and analyze what is heard, read, or viewed on a variety of topics.
- 1.3 Students present ideas and information according to a variety of purposes and audiences.

Students work with the language in a way that shows familiarity with and value for the cultures of the speakers of the language.

- 2.1 Students use the language to observe and to discuss the relationship between the products, practices and perspectives of the cultures studied.
- 2.2 Students identify and apply culturally-appropriate language and behavior.

Students use the language studied to reinforce and expand their knowledge, connecting language and cultural experiences to all content areas.

- 3.1 Students apply the language of study to discuss other content areas of study.

Students can apply their world language skills to personal, community, and career experiences.

- 4.1 Students use knowledge and skills gained in the language to identify and create a personal education and/or career plan.
- 4.2 Students use digital tools in the language of study to further language study and/or to connect with a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.

Students explain what they know and are able to monitor their own learning journey with support from their teachers.

- 5.1 Students self-assess growth in language learning, practice, and understanding.
- 5.2 Students set language learning goals and organize priorities.

NEBRASKA CAREER AND TECHNICAL EDUCATION



CTE®
Learning that works for Nebraska

NEBRASKA DEPARTMENT OF EDUCATION

COMPUTER SCIENCE AND TECHNOLOGY

STANDARDS

COMPUTER SCIENCE AND TECHNOLOGY

STANDARDS AND INDICATORS:

CS.HS.1 Demonstrate and describe best practices of computer literacy.

CS.HS.1.a	Interpret potential beneficial and harmful effects of computing innovations and emerging technologies, including artificial intelligence.
CS.HS.1.b	Identify and explain how hardware components and software applications meet the needs of the end user.
CS.HS.1.c	Demonstrate effective and efficient searches.
CS.HS.1.d	Select and use appropriate software to complete tasks in a variety of educational and professional settings.
CS.HS.1.e	Identify information technologies used in various industries and potential careers in those industries.

CS.HS.2 Analyze ethical practices and behaviors of digital citizenship.

CS.HS.2.a	Examine and evaluate cultural, social, and ethical issues associated with information technology.
CS.HS.2.b	Apply digital literacy by assessing the validity, accuracy, and appropriateness of information.
CS.HS.2.c	Describe how algorithms may result in both intentional and unintentional bias.
CS.HS.2.d	Investigate how applications of computing can have legal implications.
CS.HS.2.e	Evaluate safety and security measures for protecting information and managing digital footprints.

COMPUTER SCIENCE AND TECHNOLOGY (cont.)

CS.HS.3 Apply concepts of information technology.

CS.HS.3.a	Identify and describe computing hardware components.
CS.HS.3.b	Perform operations on digital files stored on local devices and remote/cloud storage.
CS.HS.3.c	Compare and contrast the functions, features, and limitations of different operating systems and utilities.
CS.HS.3.d	Troubleshoot computer hardware and software.
CS.HS.3.e	Define components of computer networks.
CS.HS.3.f	Explain how data is sent through the Internet.
CS.HS.3.g	Interpret and draw conclusions based on a data set.

CS.HS.4 Analyze the fundamentals of cybersecurity.

CS.HS.4.a	Describe cryptography, encryption, and ciphers.
CS.HS.4.b	Identify methods to protect personal devices, information, and systems.
CS.HS.4.c	Compare and contrast federal, state, local, and international cybersecurity policies.

COMPUTER SCIENCE AND TECHNOLOGY (cont.)

CS.HS.5 Apply concepts of computational thinking.

CS.HS.5.a	Define the term algorithm and explain its relationship to computational solutions.
CS.HS.5.b	Decompose a complex problem into distinct parts.
CS.HS.5.c	Identify and develop computational solutions to problems.
CS.HS.5.d	Define abstraction in terms of computer science and explain how it is used to manage complexity.
CS.HS.5.e	Represent equivalent data using different encoding schemes.

CS.HS.6 Implement programming literacy practices to create computational artifacts.

CS.HS.6.a	Predict the result or output of code execution.
CS.HS.6.b	Develop programs that use sequences of statements, variables, loops, and conditionals.
CS.HS.6.c	Design and develop computational artifacts that address personally- or socially relevant concerns.
CS.HS.6.d	Use abstraction to manage complexity or avoid duplication of effort.
CS.HS.6.e	Use existing procedures within a program or language based on documentation.
CS.HS.6.f	Write documentation describing the function of computational artifacts.

NEBRASKA CAREER AND TECHNICAL EDUCATION



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NEBRASKA DEPARTMENT OF EDUCATION

AGRICULTURE, FOOD, AND NATURAL RESOURCES

PROGRAM OF STUDY STANDARDS

AGRICULTURE, FOOD, AND NATURAL RESOURCES

NEBRASKA CAREER AND TECHNICAL EDUCATION STATE MODEL PROGRAMS OF STUDY

CAREER FIELD OVERVIEW

The Agriculture, Food, and Natural Resources Career Field area provides opportunities for students to deepen their understanding of topics such as animal science, plant and soil science, agribusiness, food products and processing, power, structural, and technical systems, leadership and personal development, biotechnology, and environmental and natural resources.

PROGRAMS OF STUDY

Programs of Study are the primary delivery model for career and technical education (CTE) in Nebraska. They include a sequence of courses which progresses in specificity and rigor and are updated regularly to align with Nebraska's workforce needs and economic development priorities. This document includes the programs of study and course-based standards for the Agriculture, Food, and Natural Resources career field. These state model programs of study were developed to:

- Assist secondary schools in creating meaningful sequences of courses that adequately prepare individuals for seamless transitions to postsecondary education and careers eliminating duplication of coursework;
- Assist students in identifying appropriate courses for high school and postsecondary education that lead to their chosen career;
- Encourage collaboration between secondary and postsecondary education through curricular alignment;
- Offer opportunities for high-quality workplace experiences aligned to students' career interests;
- Promote the advancement of early postsecondary opportunities (including dual-credit courses) for all students; and
- Support postsecondary education options for students to further prepare them for successful transitions to their future careers.

Nebraska's programs of study are organized around Nebraska's CTE Model, which provides a way for students to explore the diversity of career options available to them.

NEBRASKA CAREER AND TECHNICAL EDUCATION MODEL

1 CORE ACADEMICS AND CAREER READINESS

At the center of the NCE Model is the expectation for all students to develop a solid academic core. The next ring identifies specific career readiness standards and practices that prepare students for success in postsecondary education as well as entrepreneurship/employment.

2 CAREER FIELDS

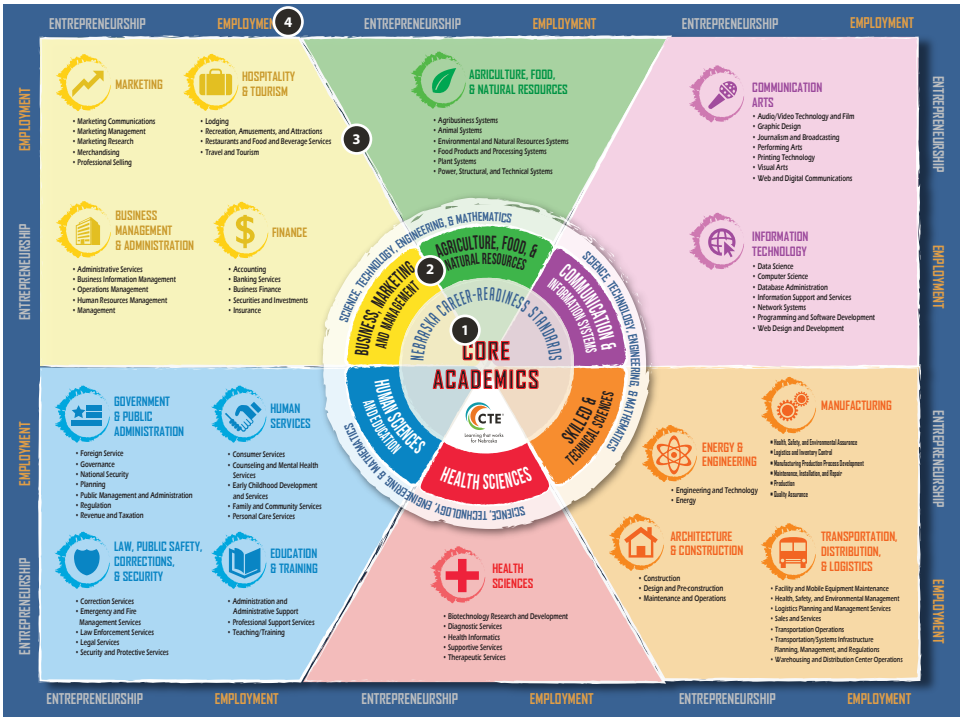
The six career fields represent broad sectors of the job market on which students may choose to focus.

3 CAREER CLUSTERS

Each career field is composed of career clusters radiating out from it. The clusters are more specific segments of the labor market. Each cluster is a grouping of careers that focus on similar subjects or similar skills. A basic understanding and exploration of each of the clusters will provide students with a solid foundation for career decision-making to conceptualize the entire world of work.

4 EMPLOYABILITY AND ENTREPRENEURSHIP

Career education provides the opportunity to gain the knowledge and skills for both employment and entrepreneurship. The reality for Nebraska and the United States is that entrepreneurship will help ensure economic growth and vitality. By infusing entrepreneurship competencies, career education is helping create the next generation of America's innovators and entrepreneurs.



The model is a visual map of "career fields" and "career clusters/pathways" and organizes the 16 National Career Clusters into six broad sectors of entrepreneurship and employment:

- Agriculture, Food and Natural Resources
- Business, Marketing and Management
- Communication and Information Systems
- Health Sciences
- Human Sciences and Education
- Skilled and Technical Sciences

These fields break down into more specific Career Clusters, Pathways and Occupational Specialties. The model provides a way for:

- Students to explore the diversity of career options available to them.
- Students to begin to prepare for their career with plans for secondary and post-secondary education.
- Schools to organize curriculum into Programs of Study that prepare students for opportunities in Nebraska's economy.

COURSE SEQUENCING

The courses within the State Model Program of Study are intended to be offered sequentially, to allow learners to build upon foundational knowledge and skills learned in introductory and intermediate courses and applied in more advanced capstone coursework. Non-duplicative sequences of courses ensure students transition to postsecondary education without duplication of classes and content. CTE enrollment data is collected at the course level. Students who participate and concentrate in CTE generally have more positive outcomes such as higher graduation rates along with postsecondary success.

Introductory Courses

Introductory courses set the foundation for a program of study by introducing students to broad foundational knowledge relative to an occupational area and career field.

Intermediate Courses

Intermediate courses build on the foundational knowledge of Introductory courses to further develop the academic, technical, and career readiness skills within a particular career field and occupational area.

Capstone Courses

Capstone courses are occupationally specific and further develop the necessary and required academic, technical, and career readiness skills needed for seamless transitions to postsecondary education and employment. Capstone courses often provide opportunities for students to earn postsecondary credit.

Levels of Participation

CTE Participant

A student who has earned one or more credits in any career and technical education program area.

CTE Concentrator

A secondary student who, in grades 9 through 12, has earned credit in at least two courses in a single career cluster program at the intermediate or capstone level.

State Model Programs of Study are coordinated, nonduplicative sequences of academic and technical content at the secondary and postsecondary levels that incorporate challenging State academic standards, address both academic and technical knowledge and skills, including Nebraska's Career Readiness Skills, are aligned with the needs of industries in Nebraska's economy, progress in specificity, have multiple entry and exit points that incorporate credentialing, and culminate in the attainment of a recognized postsecondary credential.

COURSE-BASED STANDARDS

Individual CTE courses, which make up the sequence of courses for Programs of Study, include content area standards and indicators to provide a framework for quality teaching and learning. While not required by state law, districts are encouraged to adopt these State Model Programs of Study and their related course-based standards. CTE State Model Programs of Study and course-based standards are revised on a five-year cycle to remain responsive to the rapid advances and needs of business and industry, help students explore a variety of postsecondary options and corresponding entrance requirements to help identify their next steps, and to align to changes in postsecondary programs.

Standards

At the highest level of generality, content area standards include a set of broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of students. They reflect long-term goals for learning.

Indicators

Under each standard are indicators, which further describe what a student must know and be able to do to meet the standard. Indicators are performance-based statements that provide educators with a clear understanding of the expected level of student learning and guidance. Indicators provide guidance for an assessment of student learning.

EXPANDED LEARNING OPPORTUNITIES

Expanded learning opportunities build on, support, and enhance learning within and outside of regular school programming. They are a critical component of Nebraska's educational landscape and should be intentionally supported to further develop students' college and career readiness. To signal aligned expanded learning opportunities, each Program of Study identifies additional areas where students may desire to personalize their program and take additional coursework or work-based learning that aligns with their interests. These expanded learning opportunities are not considered part of a Program of Study nor are they required, but rather a meaningful opportunity for students to continue to learn after completing the Program of Study sequence of courses within the context of their career interests. Along with aligned coursework, two prominent expanded learning opportunities include participating in Work-based Learning or a Career and Technical Student Organization.

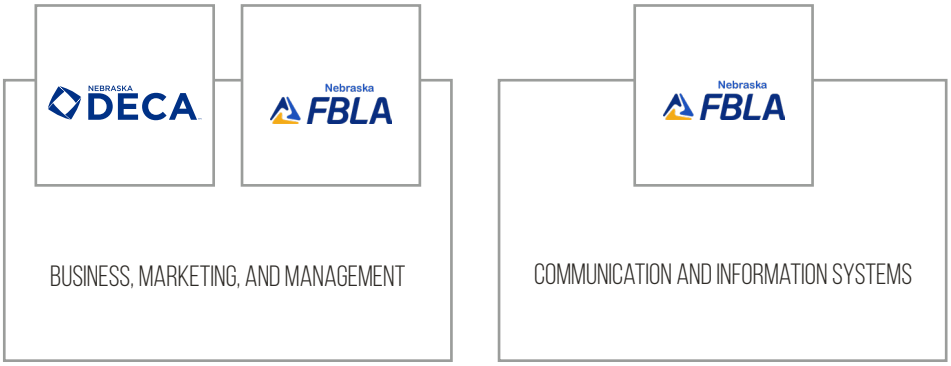
Work-Based Learning

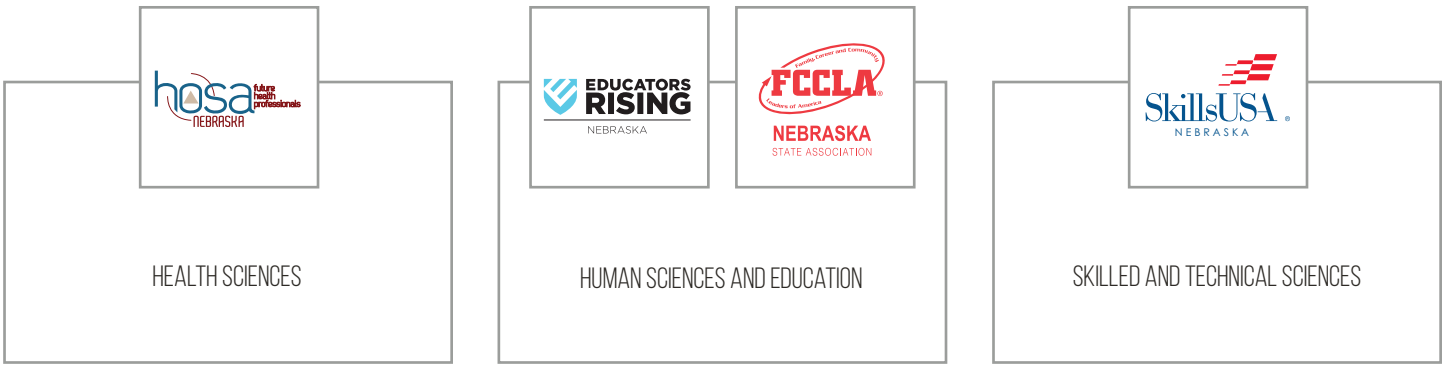
Work-Based Learning (WBL) connects learners with employers to prepare them for success in an everchanging workplace. WBL is a planned program of meaningful experiences related to the career interests of learners that enables them to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. WBL is learning through work, not simply learning about work. Expanding high-quality WBL opportunities for students is one of Nebraska's CTE strategic priorities and is a program quality accountability indicator. Nebraska CTE affirms WBL as a critical component of career development. Throughout the State Model Programs of Study, courses where WBL is embedded into the class is noted in the course title (e.g., "Introduction to Agriculture, Food, and Natural Resources with Work-Based Learning"). It is also signaled as an expanded learning opportunity across all programs of study.

Career And Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are an extension of classroom instruction—applying classroom learning to real-world experiences. CTSOs provide opportunities for all students to develop career readiness skills through activities, competitions, and community service. Nebraska recognizes seven CTSOs aligned with the state's Programs of Study and career field areas. These include:







CAREER READINESS STANDARDS

Embedded into the State Model Programs of Study and courses are the Nebraska Career Readiness standards. These standards rest on important "practices and proficiencies" with long-standing importance in career education. These standards and related practices are not limited to formal CTE programs nor to the middle school or high school level. Rather, these standards and practices should be used over and over again with increasing complexity and relevance by students as they progress through their educational pathway. The standards themselves do not dictate curriculum, pedagogy or delivery of content. Schools and colleges may handle the teaching and assessing of these standards in many different ways.

THE CAREER READY INDIVIDUAL...



1. Applies appropriate academic and technical skills



2. Communicates effectively and appropriately



3. Contributes to employer and community success



4. Makes sense of problems and perseveres in solving them



5. Uses critical thinking



6. Demonstrates innovation and creativity



7. Models ethical leadership and effective management



8. Works productively in teams and demonstrates cultural competency



9. Utilizes technology



10. Manages personal career development



11. Attends to personal and financial well-being

AGRICULTURE, FOOD, AND NATURAL RESOURCES

PROGRAMS OF STUDY



AGRICULTURE, FOOD, AND NATURAL RESOURCES

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
AGRICULTURAL POWER, STRUCTURE, & TECHNOLOGY	011000 - Introduction to AFNR, OR 018060 - CASE Introduction to AFNR	016004 - Welding, OR 016000 - Power, Structural, & Technology Systems Fundamentals, OR 018066 - CASE Agriculture Power & Technology	016005 - Metals & Fabrication, OR 011018 - Agricultural Technology, OR 016006 - Precision Agriculture, OR 016003 - Advanced Power, Structural, & Technology Systems	017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness, with Work-Based Learning 320702 - Agriculture, Food, And Natural Resources Work Based Learning Experience
AGRIBUSINESS	011000 - Introduction to AFNR, OR 018060 - CASE Introduction to AFNR	011009 - Agricultural Business, OR 018067 - CASE Agribusiness	011011 - Agricultural Sales, OR 011017 - Agricultural Communication, OR 011010 - Agricultural Economics, OR 012005 - Agricultural Entrepreneurship	017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness, with Work-Based Learning 320702 - Agriculture, Food, And Natural Resources Work Based Learning Experience
ANIMAL SCIENCE	011000 - Introduction to AFNR, OR 018060 - CASE Introduction to AFN	011004 - Animal Science, OR 018062 - CASE Animal Science	011006 - Small Animal Management, OR 011005 - Large Animal Management, OR 011015 - Veterinary Science, OR 012004 - Agricultural Biotechnology, OR 018063 - CASE Animal and Plant Biotechnology	017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness, with Work-Based Learning 320702 - Agriculture, Food, And Natural Resources Work Based Learning Experience
DIVERSIFIED AGRICULTURAL SCIENCE	011000 - Introduction to AFNR, OR 018060 - CASE Introduction to AFNR	011019 - Diversified Agriculture	011020 - Integrated Agricultural Science	017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness, with Work-Based Learning 320702 - Agriculture, Food, And Natural Resources Work Based Learning Experience

AGRICULTURE, FOOD, AND NATURAL RESOURCES

PROGRAMS OF STUDY



AGRICULTURE, FOOD, AND NATURAL RESOURCES

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
ENVIRONMENTAL & NATURAL RESOURCES	011000 - Introduction to AFNR, OR 018060 - CASE Introduction to AFNR	013000 - Environmental & Natural Resources, OR 018064 - CASE Natural Resources and Ecology	013001 - Wildlife Management, OR 013002 - Environmental & Natural Resources Management	017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness, with Work-Based Learning 320702 - Agriculture, Food, And Natural Resources Work Based Learning Experience
FOOD PRODUCTS & PROCESSING	011000 - Introduction to AFNR, OR 018060 - CASE Introduction to AFNR	014000 - Food Science & Safety, OR 018065 - CASE Food Science & Safety	014001 - Food Products & Technology	017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness, with Work-Based Learning 320702 - Agriculture, Food, And Natural Resources Work Based Learning Experience
PLANT SCIENCE	011000 - Introduction to AFNR , OR 018060 - CASE Introduction to AFNR	011007 - Plant Science, OR 018061 - CASE Plant Science	011008 - Crop Management & Agronomy, OR 012001 - Nursery Management, OR 012006 - Landscape Design, OR 012002 - Floriculture, OR 012004 - Agricultural Biotechnology, OR 018063 - CASE Animal and Plant Biotechnology	017000 - Agriculture, Food, and Natural Resources Leadership and Career Readiness, with Work-Based Learning 320702 - Agriculture, Food, And Natural Resources Work Based Learning Experience

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of the FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basic principles of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE
AFNR.HS.20.2.c	Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a	Inventory personal work preferences and interests related to the AFNR Career Field.
AFNR.HS.20.3.b	Identify careers available in multiple AFNR Career Pathways.
AFNR.HS.20.3.c	Determine common qualities of a specific career area (e.g., educational requirements, work environment).
AFNR.HS.20.3.d	Identify necessary steps to prepare for a specific AFNR careers (e.g., coursework, post-secondary, needed skills).
AFNR.HS.20.3.e	Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a	Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).
AFNR.HS.20.4.b	Summarize the components that comprise all ecosystems.
AFNR.HS.20.4.c	Compare and categorize biotic and abiotic factors in various habitats.
AFNR.HS.20.4.d	Identify the importance of water and air quality.
AFNR.HS.20.4.e	Identify the physical qualities of the soil that determine use for the environmental service system.
AFNR.HS.20.4.f	Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
AFNR.HS.20.5.c	Differentiate production animals from companion animals.
AFNR.HS.20.5.d	Classify the major components of production animal systems (e.g., feedlots, cow-calf operations, farrow, finish) and regional distribution.
AFNR.HS.20.5.e	Categorize uses for and products generated from production animals.
AFNR.HS.20.5.f	Classify and determine uses for companion animals.

AFNR.HS.20.6 Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.

AFNR.HS.20.6.a	Classify major components of the plant industry.
AFNR.HS.20.6.b	Classify plants according to life cycles.
AFNR.HS.20.6.c	Identify the function of plant parts.
AFNR.HS.20.6.d	Identify basic processes and role of photosynthesis, respiration, and transpiration.
AFNR.HS.20.6.e	Differentiate between sexual and asexual propagation techniques.

AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

AFNR.HS.20.8.a Evaluate how different foods affect the human body and its physical and cellular processes.

AFNR.HS.20.8.b Identify food safety and sanitation procedures for handling and processing to assure food quality.

AFNR.HS.20.8.c Summarize food safety procedures when storing and distributing products to consumers.

AFNR.HS.20.8.d Explain the producer-to-consumer processes in the food industry.

AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

AFNR.HS.20.9.a Define major sectors within the agribusiness industry.

AFNR.HS.20.9.b Identify standard production and agribusiness records and plans.

AFNR.HS.20.9.c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.

AFNR.HS.20.9.d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.

AFNR.HS.20.9.e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Create an agricultural project using knowledge of power, structural and technical systems (e.g. procedures, operations, safety, tools, and equipment).

AFNR.HS.20.10.a Identify and practice safe laboratory practices and procedures.

AFNR.HS.20.10.b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.

AFNR.HS.20.10.c Develop an agricultural project plan with the required project plan components (e.g., purpose, materials, budget, skills required, timeframe).

AFNR.HS.20.10.d Assess a project plan to completion.

WELDING

COURSE DESCRIPTION

This course provides an in-depth study of welding principles and applications in a classroom/agricultural laboratory/shop setting to help students understand and prepare for the opportunities in current welding and agricultural associated careers. Through hands on applications and comprehensive technical content students will develop foundational knowledge and skills for welding processes. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.9.1. Demonstrate professional standards/employability skills as required by welding professionals associated with the agricultural industry.

AFNR.HS.9.1.a	Identify career development and opportunities in the associated fields of the welding industry.
AFNR.HS.9.1.b	Apply information in career planning and employment situations related to agricultural welding.
AFNR.HS.9.1.c	Compare certifications, credentialing, and compliance within the industry.

AFNR.HS.9.2 Apply safety principles, practices, and guidelines to the work environment.

AFNR.HS.9.2.a	Demonstrate knowledge of safety principles for the laboratory environment and industry.
AFNR.HS.9.2.b	Identify personal and occupational health practices including safety and first-aid practices.
AFNR.HS.9.2.c	Demonstrate awareness of safety devices assembled and installed correctly on tools and devices.
AFNR.HS.9.2.d	Apply the requirements of eye safety protection and other Personal Protection Equipment.
AFNR.HS.9.2.e	Identify the injuries/illnesses possible in the industry and laboratory.

WELDING (cont.)

AFNR.HS.9.3 Perform precision measurements.

AFNR.HS.9.3.a Select and use proper measuring devices.

AFNR.HS.9.3.b Utilize math formulas to complete work and job tasks.

AFNR.HS.9.3.c Measure components to begin project preparations.

AFNR.HS.9.4 Demonstrate use of welding symbols, materials, and weldability.

AFNR.HS.9.4.a Develop and identify basic drawings, types, symbols, and list of materials.

AFNR.HS.9.4.b Demonstrate the ability to read and/or produce prints.

AFNR.HS.9.4.c Identify and explain the knowledge of materials, their properties, and methods to use them.

AFNR.HS.9.4.d Estimate materials and cost associated.

AFNR.HS.9.5 Demonstrate types of assembling processes.

AFNR.HS.9.5.a Demonstrate welding techniques used in an agricultural setting with the following processes: O-A, Arc, GMAW, and/or GTAW.

AFNR.HS.9.5.b Utilize appropriate procedures to the design and production of a manufactured agricultural part or component.

AFNR.HS.9.5.c Identify the proper finish for the selected materials.

POWER, STRUCTURAL, AND TECHNOLOGY SYSTEMS FUNDAMENTALS

COURSE DESCRIPTION

This course is designed to provide students with introductory level experiences in selected major areas of agricultural mechanics technology which may include woodworking, agricultural structures, electrical wiring, introductory arc welding, oxy/fuel cutting and welding processes, and power equipment operation and maintenance. Learning activities include information, skill development, and problem solving. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.26.1 Identify careers in the agricultural mechanics industry in the areas of agricultural construction, agricultural electrical systems, welding and metal fabrication, and agriculture power machinery.

AFNR.HS.26.1.a Identify career opportunities in Agricultural Mechanics in the local community.

AFNR.HS.26.1.b Identify professional organizations associated with agricultural mechanics skills and related occupations.

AFNR.HS.26.1.c Apply information in career planning and employment situations related to agricultural mechanics.

AFNR.HS.26.2 Model principles of a safe work environment, including safety practices.

AFNR.HS.26.2.a Identify potential hazards in the agricultural mechanics laboratory and/or work setting.

AFNR.HS.26.2.b Select safety equipment and procedures for various agriculture-related activities.

AFNR.HS.26.2.c Demonstrate safety procedures and behavior while working in the agriculture classroom, labs, and/or work sites.

AFNR.HS.26.2.d Identify personal protective equipment required for various activities conducted in the agricultural mechanics laboratory and industry.

AFNR.HS.26.2.e Safely operate all hand tools, power tools, and equipment in the agricultural mechanics laboratory.

POWER, STRUCTURAL, AND TECHNOLOGY SYSTEMS FUNDAMENTALS (cont.)

AFNR.HS.26.3 Demonstrate the safe use of common tools and materials used in woodworking and agricultural construction.

AFNR.HS.26.3.a Identify common woodworking tools used (e.g., hand tools, power tools, layout tools, measuring tools).

AFNR.HS.26.3.b Demonstrate the proper care and use of tools (e.g., hand tools, layout tools, measuring tools).

AFNR.HS.26.3.c Demonstrate appropriate techniques for restoring worn, damaged, or abused tools to good working condition.

AFNR.HS.26.4 Select appropriate types of lumber, fasteners, and finish materials used in woodworking and agricultural construction.

AFNR.HS.26.4.a Describe common woods including characteristics and uses.

AFNR.HS.26.4.b Classify common dimensions of wood materials.

AFNR.HS.26.4.c Select appropriate screws, nails, bolts, and other fasteners for various uses.

AFNR.HS.26.4.d Compare different types of wood glues and their recommended uses.

AFNR.HS.26.4.e Identify proper woodworking and agricultural construction preserving/finishing materials.

AFNR.HS.26.5 Demonstrate knowledge of electrical principles, tools, and materials necessary for planning and installation of electrical circuits for agricultural and residential applications.

AFNR.HS.26.5.a Describe the basic principles of electrical theory.

AFNR.HS.26.5.b Describe types of electrical circuits.

AFNR.HS.26.5.c Define electrical terms and relationship between them (e.g., watts, volts, amps and resistance).

AFNR.HS.26.5.d Explain the purpose of the National Electrical Code.

POWER, STRUCTURAL, AND TECHNOLOGY SYSTEMS FUNDAMENTALS (cont.)

AFNR.HS.26.5 Demonstrate knowledge of electrical principles, tools, and materials necessary for planning and installation of electrical circuits for agricultural and residential applications.

AFNR.HS.26.5.a Describe the basic principles of electrical theory.

AFNR.HS.26.5.b Describe types of electrical circuits.

AFNR.HS.26.5.c Define electrical terms and relationship between them (e.g., watts, volts, amps resistance).

AFNR.HS.26.5.d Explain the purpose of the National Electrical Code.

AFNR.HS.26.5.e Identify electrical symbols used in electrical schematics and floor plans of agricultural facilities.

AFNR.HS.26.5.f Use appropriate electrical symbols and follow National Electrical Code requirements for electrical schematics

AFNR.HS.26.5.g Demonstrate commonly used electrical tools in the agricultural industry.

AFNR.HS.26.5.h Identify types of electrical cable used in agricultural applications.

AFNR.HS.26.5.i Calculate load for specific circuit applications and describe potential hazards of overloads on a circuit.

AFNR.HS.26.5.j Select conductors for circuit applications based on given load, location, temperature, and distance parameters.

AFNR.HS.26.5.k Compare and contrast switches, receptacles, lighting outlet devices, grounding conductors, solderless connectors, and related materials for use in agricultural and residential electric circuits.

AFNR.HS.26.5.l Identify steps in installing branch circuit enclosures, conductors and devices.

POWER, STRUCTURAL, AND TECHNOLOGY SYSTEMS FUNDAMENTALS (cont.)

AFNR.HS.26.6 Apply the operating principles of a four stroke engine, including components of and proper maintenance procedures, in accordance with the manufacturer's recommendations.

AFNR.HS.26.6.a Explain how a small engine operates.

AFNR. HS.26.6.b Compare the similarities and differences between four-stroke-cycle engines and two-stroke-cycle engines.

AFNR.HS.26.6.c Interpret service and parts manuals for small engines and identify operating instructions and safety procedures for operating small engines.

AFNR.HS.26.6.d Identify tools commonly used for small engine service and repair.

AFNR.HS.26.6.e Create a maintenance calendar utilizing small engine owner's manuals.

AFNR.HS.26.6.f Perform basic service procedures according to manufacturer's recommendations.

AFNR.HS.26.6.g Compare proper maintenance procedures using service manuals from a variety of small engine manufacturers.

AFNR.HS.26.7 Demonstrate the safe and efficient operation of agricultural tractors and related equipment.

AFNR.HS.26.7.a Identify common types of machinery used in the agricultural industry.

AFNR.HS.26.7.b Describe the functions and purposes of common types of machinery used in the agriculture industry.

METALS AND FABRICATION

COURSE DESCRIPTION

This course provides an in-depth study of metals and fabrication with metal products. It also provides the opportunity to develop, design, and construct metal fabrication projects. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.23.1 Demonstrate professional standards/employability skills as required by the industry.

AFNR.HS.23.1.a	Identify career-development opportunities and opportunities in the associated fields of the welding industry.
AFNR.HS.23.1.b	Apply metal and fabrication concepts in career situations related to metals and fabrication .
AFNR.HS.23.1.c	Examine certifications, credentialing, and compliance within the industry.

AFNR.HS.23.2 Demonstrate safety principles, practices, and guidelines to the work environment.

AFNR.HS.23.2.a	Demonstrate knowledge of safety principles for the laboratory environment and industry.
AFNR.HS.23.2.b	Identify personal and occupational health practices including safety and first-aid practices.
AFNR.HS.23.2.c	Demonstrate awareness of safety devices assembled and installed correctly on tools and devices.
AFNR.HS.23.2.d	Apply the requirements of eye safety protection and other Personal Protection Equipment.
AFNR.HS.23.2.e	Identify potential injuries or illnesses from the industry and laboratory setting.

METALS AND FABRICATION (cont.)

AFNR.HS.23.3 Summarize the components of proper handling and storage of materials.

AFNR.HS.23.3.a Identify the proper storage methods of chemicals, hazardous materials, and metal products.

AFNR.HS.23.3.b Demonstrate proper orientation and operation of all equipment in the laboratory.

AFNR.HS.23.3.c Identify the composition and classification of the materials.

AFNR.HS.23.4 Summarize the scheduling process of a product.

AFNR.HS.23.4.a Identify the steps required and equipment needed to create the product.

AFNR.HS.23.4.b Define schedule requirements to create a product.

AFNR.HS.23.4.c Identify materials used in the fabrication process.

AFNR.HS.23.5 Create a project design, draw, construct, and preserve a metalworking project.

AFNR.HS.23.5.a Plan metalworking projects using simple drawing techniques.

AFNR.HS.23.5.b State the use and format of the project and calculate a bill of materials.

AFNR.HS.23.5.c Apply metalworking knowledge to plan a project using hand and power tools while demonstrating the safe use of these tools according to industry standards.

AFNR.HS.23.5.d Utilize the proper techniques of welding, cutting, and shaping metal for the construction of the project.

AFNR.HS.23.5.e Prepare metal projects for finishing by selecting and using appropriate materials for grinding, sanding, and polishing with appropriate materials and finishes.

AGRICULTURAL TECHNOLOGY

COURSE DESCRIPTION

Agricultural Technology is designed to introduce students to the technology utilized in the agricultural industry. Students will build a basis of knowledge of technology utilized in the various components of crop and livestock production. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.8.1 Assess agricultural technology and how it relates to modern agriculture.

AFNR.HS.8.1.a Identify a variety of agricultural technologies used in production agriculture (e.g., livestock, agronomy, agribusiness, horticulture).

AFNR.HS.8.1.b Compare historical technologies and how agriculture changed through different revolutions.

AFNR.HS.8.1.c Discuss how technologies relate and interact with modern agriculture.

AFNR.HS.8.2 Identify the components of the Global Positioning Systems (GPS).

AFNR.HS.8.2.a Describe the design of GPS.

AFNR.HS.8.2.b Identify factors influencing GPS accuracy and potential uses/applications.

AFNR.HS.8.2.c Utilize GPS to solve problems in the agricultural industry.

AFNR.HS.8.2.d Describe steps to install, maintain, and service instrumentation and equipment used for precision technologies.

AFNR.HS.8.2.e Identify various precision technologies in planning crop production (e.g., precision soil sampling techniques, variable rate applications, precision planting applications)

AFNR.HS.8.3 Demonstrate Geographic Information Systems (GIS) Software.

AFNR.HS.8.3.a Utilize GIS software to create, analyze, and edit production maps.

AFNR.HS.8.3.b Analyze the economic impact of using GIS and other geospatial technologies.

AFNR.HS.8.3.c Classify data for usage in GIS software.

AGRICULTURAL TECHNOLOGY (cont.)

AFNR.HS.8.4 Utilize legal description and mapping data.

AFNR.HS.8.4.a Analyze methods of describing and locating land.

AFNR.HS.8.4.b Differentiate types of legal description (e.g., Rectangular Government Survey, Metes and Bounds, Lot/Block Numbering on a Plat Map).

AFNR.HS.8.4.c Demonstrate the ability to locate land using GPS, GIS, and/or Legal Descriptions.

AFNR.HS.8.5 Compare and contrast current Unmanned Aerial vehicles and drone systems.

AFNR.HS.8.5.a Identify how UAV's are utilized in many different areas of agriculture.

AFNR.HS.8.5.b Identify the government rules and regulations associated with UAV's for making man agement decisions within the agriculture sector.

AFNR.HS.8.5.c Classify different types of drones and how they are used.

PRECISION AGRICULTURE

COURSE DESCRIPTION

This course is designed to build on the knowledge from previous courses so the student can learn principles and applications in precision agriculture such as GIS, GPS, data acquisition and management, and related components. Classroom and laboratory activities are supplemented through supervised agricultural experience, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.27.1 Identify precision agriculture technology.

AFNR.HS.27.1.a	Identify various precision agriculture equipment and their uses within the industry.
AFNR.HS.27.1.b	Identify historical and current modes of precision agriculture.
AFNR.HS.27.1.c	Identify Global Navigation Satellite Systems and components.

AFNR.HS.27.2 Identify the different hardware components of precision agriculture.

AFNR.HS.27.2.a	Define the electrical and hydraulic key components of equipment in precision agriculture.
AFNR.HS.27.2.b	Identify factors influencing GPS accuracy and potential uses/applications.
AFNR.HS.27.2.c	Apply GPS to solve problems in the agricultural industry.
AFNR.HS.27.2.d	Install, maintain, and service instrumentation and equipment used for precision technologies.
AFNR.HS.27.2.e	Identify various precision technologies in planning crop production activities (e.g., Precision soil sampling techniques, variable rate applications, precision planting applications.)

PRECISION AGRICULTURE (cont.)

AFNR.HS.27.3 Utilize precision agriculture software to help make management decisions.

AFNR.HS.27.3.a	Utilize various softwares to create, analyze, and edit production maps.
AFNR.HS.27.3.b	Synthesize the economic impact of using GIS and other geospatial technologies.
AFNR.HS.27.3.c	Classify data for usage in agricultural-based softwares.

AFNR.HS.27.4 Utilize precision technology in livestock production.

AFNR.HS.27.4.a	Analyze precision technology available in the livestock industry.
AFNR.HS27.4.b	Utilize data acquired from precision devices to assist in management decisions of the livestock.
AFNR.HS.27.4.c	Compare data from breed associations to numerical information acquired from local or area data.
AFNR. HS27.4.d	Summarize the technology behind Genomic Enhanced Expected Progeny Difference.

ADVANCED POWER, STRUCTURAL, AND TECHNOLOGY SYSTEMS

COURSE DESCRIPTION

This course is designed to build on previous courses so the student can apply principles and applications of physical science, design, and safety to a project-based learning environment. Learning activities include creating and following plans, project construction, and problem solving. Classroom and laboratory activities are supplemented through, supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.1.1 Utilize physical science and engineering principles to design and implement and improve safe and efficient mechanical systems in AFNR situations.

AFNR.HS.1.1.a	Compare and contrast applications of simple machines in AFNR-related mechanical systems.
AFNR.HS.1.1.b	Determine appropriate tools, machines, and equipment needed to construct and/or fabricate a project in AFNR.
AFNR.HS.1.1.c	Classify the types of safety hazards associated with different mechanical systems used in AFNR (e.g., caution, warning, danger).
AFNR.HS.1.1.d	Apply mathematical calculations to determine the mechanical advantage of simple machines in AFNR-related mechanical systems.
AFNR.HS.1.1.e	Calculate the maintenance and purchase cost of tools, machines, and equipment used in AFNR.
AFNR.HS.1.1.f	Apply the scientific method to devise strategies to improve the efficiency of operation of AFNR-related mechanical systems.
AFNR.HS.1.1.g	Devise processes to safely implement and evaluate the safe use of AFNR-related tools, machinery, and equipment.

ADVANCED POWER, STRUCTURAL, AND TECHNOLOGY SYSTEMS (cont.)

AFNR.HS.1.2 Evaluate structural requirements and specifications and estimate costs for structures within Agriculture Food and Natural Resources.

AFNR.HS.1.2.a Summarize information needed to complete a bill of materials and cost estimate for an AFNR structure.

AFNR.HS.1.2.b Summarize sources of industry construction and materials standards and their importance (e.g., American National Standards Institute, ANSI, Underwriters' Laboratories, UL).

AFNR.HS.1.2.c Assess local building code requirements for agricultural structures.

AFNR.HS.1.2.d Create a project cost estimate including materials, labor, and management for an AFNR structure.

AFNR.HS.1.2.e Design a building functionality and safety assessment on an agricultural structure using knowledge of industry standards and local code requirements.

AFNR.HS.1.3 Utilize architectural and mechanical plans to construct, maintain and/or repair AFNR structures (e.g., material selection, site preparation, and/or layout, plumbing, concrete/ masonry, brick/stone).

AFNR.HS.1.3.a Examine the criteria in selecting materials for constructing, maintaining, and/or repairing AFNR structures.

AFNR.HS.1.3.b Compare and contrast the characteristics of products used in constructing AFNR structures (e.g., copper, PVC, PEX, fencing).

AFNR.HS.1.3.c Summarize the characteristics of the components found in concrete.

AFNR.HS.1.3.d Assess samples of materials or products for quality and efficiency of workmanship.

AFNR.HS.1.3.e Complete a building-site-analysis checklist to select an ideal building site.

AFNR.HS.1.3.f Measure and calculate the cost of a project (e.g., fencing, metal/wood structures, concrete projects).

AFNR.HS.1.3.g Select materials for a project based upon an analysis of the project and the quality of the materials.

AFNR.HS.1.3.h Identify processes in the construction, maintenance, and/or repair of fencing (e.g., wood, static wire, electrical wire, and other fencing materials) and AFNR structures.

AFNR.HS.1.3.i Calculate costs to insulate a structure and estimate reduced BTU loss.

ADVANCED POWER, STRUCTURAL, AND TECHNOLOGY SYSTEMS (cont.)

AFNR.HS.1.4 Evaluate concepts of electrical drawings to design, install and troubleshoot electronic control systems in AFNR settings.

AFNR.HS.1.4.a	Examine electrical control system components used in AFNR systems (e.g., transistors, relays, HVAC, logic controllers).
AFNR.HS.1.4.b	Compare and contrast electrical sensors and controls used in AFNR power, structural, and technical systems.
AFNR.HS.1.4.c	Summarize the importance of AFNR power, structural, and technical control systems using programmable logic controllers (PLC) and/or other computer-based systems.
AFNR.HS.1.4.d	Interpret schematic drawings for electrical control systems used in AFNR systems.
AFNR.HS.1.4.e	Interpret maintenance schedules for electrical control systems used in AFNR power, structural, and technical systems.
AFNR.HS.1.4.f	Assess the functions of AFNR power, structural, and technical control systems using programmable logic controllers (PLC) in agricultural production and manufacturing.
AFNR.HS.1.4.g	Design schematic drawings for electrical control systems used in AFNR systems.
AFNR.HS.1.4.h	Troubleshoot electrical control system performance problems found in AFNR power, structural, and technical systems.
AFNR.HS.1.4.i	Develop AFNR power, structural, and technical control systems using program mable logic controllers (PLC) and/or other computer-based systems.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course will provide students with fundamental skills for success in agricultural careers and team environments. Students will investigate a variety of topics essential to career exploration and readiness in Agriculture, Food, and Natural Resources. In addition, students will develop skills in ethical leadership, communications, and teamwork. Classroom and laboratory Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs and activities.

STANDARDS AND INDICATORS:

AFNR.HS.10.1 Evaluate career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

AFNR.HS.10.1.a	Demonstrate personal responsibility in the workplace and community.
AFNR.HS.10.1.b	Demonstrate career readiness skills for career success.
AFNR.HS.10.1.c	Evaluate the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.10.1.d	Apply appropriate academic and technical skills to demonstrate career success.
AFNR.HS.10.1.e	Examine career opportunities that are matched to personal life skills and talents and career goals in an AFNR pathway of interest.

AFNR.HS.10.2 Develop employability skills for college and career readiness within AFNR.

AFNR.HS.10.2.a	Model personal responsibility and demonstrate safety in the workplace and community.
AFNR.HS.10.2.b	Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.
AFNR.HS.10.2.c	Apply reason and logic to evaluate workplace and community situations from multiple perspectives.
AFNR.HS.10.2.d	Investigate, prioritize, and select solutions to solve problems in the workplace community.
AFNR.HS.10.2.e	Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.10.2.f	Identify and demonstrate personal financial management and planning.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING (cont.)

AFNR.HS.10.3 Model teamwork and leadership skills in work groups.

AFNR.HS.10.3.a Employ cooperative leadership skills to accomplish a team goal.

AFNR.HS.10.3.b Model proper management of teams and large groups.

AFNR.HS.10.3.c Contribute to team-oriented projects to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.10.4 Model integrity, ethical leadership, and effective management in AFNR career areas.

AFNR.HS.10.4.a Model characteristics of ethical and effective leaders in the workplace and community.

AFNR.HS.10.4.b Implement personal management skills to function effectively and efficiently in the workplace.

AFNR.HS.10.4.c Demonstrate workplace characteristics that contribute to a positive morale and workplace environment.

AFNR.HS.10.4.d Demonstrate ethical decision-making in real-life situations in agriculture, food, and natural resources.

AFNR.HS.10.5 Communicate information relevant to agriculture clearly, effectively, and with reason.

AFNR.HS.10.5.a Demonstrate basic information research skills and techniques.

AFNR.HS.10.5.b Produce clear, reasoned, and coherently produced, verbal, or visual communication for formal or informal settings.

AFNR.HS.10.5.c Communicate using strategies that ensure clarity, logic, purpose, and professionalism in formal or informal settings.

AFNR.HS.10.5.d Utilize new technologies, tools, and applications to maximize productivity and minimize risk in the workplace and community.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basics of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE.
AFNR.HS.20.2.c	Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a	Inventory personal work preferences and interests related to the AFNR Career Field.
AFNR.HS.20.3.b	Identify careers available in multiple AFNR Career Pathways.
AFNR.HS.20.3.c	Determine common qualities of a specific career area (e.g., educational requirements, work environment).
AFNR.HS.20.3.d	Identify necessary steps to prepare for a specific AFNR careers (coursework, post-secondary, needed skills).
AFNR.HS.20.3.e	Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a	Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).
AFNR.HS.20.4.b	Summarize the components that comprise all ecosystems.
AFNR.HS.20.4.c	Compare and categorize biotic and abiotic factors in various habitats.
AFNR.HS.20.4.d	Identify the importance of water and air quality.
AFNR.HS.20.4.e	Identify the physical qualities of the soil that determine use for the environmental service system.
AFNR.HS.20.4.f	Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
AFNR.HS.20.5.c	Differentiate production animals from companion animals.
AFNR.HS.20.5.d	Classify the major components of production animal systems (e.g., feedlots, cow-calf operations, farrow, finish) and regional distribution.
AFNR.HS.20.5.e	Categorize uses for and products generated from production animals.
AFNR.HS.20.5.f	Classify and determine uses for companion animals.

AFNR.HS.20.6 Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.

AFNR.HS.20.6.a	Classify major components of the plant industry.
AFNR.HS.20.6.b	Classify plants according to life cycles.
AFNR.HS.20.6.c	Identify the function of plant parts.
AFNR.HS.20.6.d	Identify basic processes and role of photosynthesis, respiration, and transpiration.
AFNR.HS.20.6.e	Differentiate between sexual and asexual propagation techniques.

AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

AFNR.HS.20.8.a Evaluate how different foods affect the human body and its physical and cellular processes.

AFNR.HS.20.8.b Identify food safety and sanitation procedures for handling and processing to as sure food quality.

AFNR.HS.20.8.c Summarize food safety procedures when storing and distributing products to consumption.

AFNR.HS.20.8.d Explain the producer-to-consumer processes in the food industry.

AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

AFNR.HS.20.9.a Define major sectors within the agribusiness industry.

AFNR.HS.20.9.b Identify standard production and agribusiness records and plans.

AFNR.HS.20.9.c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.

AFNR.HS.20.9.d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.

AFNR.HS.20.9.e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.10.a Identify and practice safe laboratory practices and procedures.

AFNR.HS.20.10.b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.

AFNR.HS.20.10.c Develop an agricultural project plan with the required project plan components (e.g., purpose, materials, budget, skills required, timeframe).

AFNR.HS.20.10.d Assess a project plan to completion.

AGRICULTURAL BUSINESS

COURSE DESCRIPTION

This course covers skills necessary for entry into employment or furthering education in an agricultural business. The course includes the study of business planning, creating financial documents, analyzing financial information, developing business plans, and using sales and marketing principles. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.3.1 Summarize the history of agricultural businesses in relation to current trends.

AFNR.HS.3.1.a Identify historical changes and current trends in ag businesses.

AFNR.HS.3.1.b Explain the importance and variety of current global agricultural markets.

AFNR.HS.3.1.c Summarize the role of the major sectors of ag businesses, which include supply and inputs, production, processing/manufacturing, transportation, and marketing.

AFNR.HS.3.2 Analyze agricultural business structures and principles of business management.

AFNR.HS.3.2.a Differentiate business structures commonly found in agricultural businesses such as cooperatives, corporations, limited liability corporations, and sole proprietorship.

AFNR.HS.3.2.b Summarize the principles of business structures.

AFNR.HS.3.2.c Identify government policies within agricultural business structures.

AFNR.HS.3.3 Design statements of purpose to guide agricultural business goals, objectives, and resource allocation.

AFNR.HS.3.3.a Identify the need for statements of purpose within agricultural businesses, such as mission statements, vision statements, and/or long and short-term goals.

AFNR.HS.3.3.b Classify multiple business objectives within a typical production cycle for an agricultural business.

AFNR.HS.3.3.c Identify aspects needed in creating statements of purpose for an agricultural business.

AFNR.HS.3.3.d Determine the appropriate utilization of available resources to meet a business's statement of purpose.

AGRICULTURAL BUSINESS (cont.)

AFNR.HS.3.4 Apply concepts of record keeping to accomplish objectives and manage an established budget within an agricultural business.

AFNR.HS.3.4.a Define the purpose of record-keeping within an agricultural business and identify examples of tools and methods of record-keeping.

AFNR.HS.3.4.b Compare and contrast the benefits and limitations of record-keeping systems and practices.

AFNR.HS.3.4.c Identify the components of records in an agricultural business (e.g., assets, liabilities, debits, credits, and equity.)

AFNR.HS.3.4.d Explain input and output combinations within agricultural business records.

AFNR.HS.3.4.e Identify aspects of a budget for an agricultural business.

AFNR.HS.3.5 Analyze financial information and reports to examine appropriate decision-making in an agricultural business.

AFNR.HS.3.5.a Calculate balance sheets, income statements, net worth statements, return-on-investment ratios, and inventory statements.

AFNR.HS.3.5.b Define and analyze cash flow statements and cash flow budgets.

AFNR.HS.3.5.c Utilize financial information (e.g., financial ratios, net worth, profitability) to evaluate the performance of agricultural businesses.

AFNR.HS.3.5.d Summarize sources of risk and methods of managing risk in agricultural businesses.

AFNR.HS.3.5e Explain common methods to acquire capital (e.g., lines of credit, loans, operating notes.)

AFNR.HS.3.6 Compare various marketing strategies for agricultural businesses.

AFNR.HS.3.6.a Analyze a marketing plan and key elements of marketing (e.g., product, place, price, and promotion).

AFNR.HS.3.6.b Classify traditional marketing strategies for agricultural commodities.

AFNR.HS.3.6.c Identify innovative, non-traditional marketing strategies for agricultural commodities.

AGRICULTURAL BUSINESS (cont.)

AFNR.HS.3.7 Investigate commodity markets and strategies to manage markets for agricultural commodities.

AFNR.HS.3.7.a	Describe the history of commodity markets and their structure in today's society.
AFNR.HS.3.7.b	Summarize trading in the futures markets utilizing speculation and hedging.
AFNR.HS.3.7.c	Distinguish between cash markets for commodities and commodity marketing plans for producers (e.g., cash prices, basis, forward contracts, futures contracts).
AFNR.HS.3.7.d	Identify patterns in ag commodity markets.

AFNR.HS.3.8 Evaluate necessary aspects of a business plan for an agricultural business.

AFNR.HS.3.8.a	Identify the components of a business plan for an agricultural business.
AFNR.HS.3.8.b	Determine the characteristics of successful business plans.
AFNR.HS.3.8.c	Formulate a business plan for an agricultural business utilizing the key concepts of business planning.

AGRICULTURAL SALES

COURSE DESCRIPTION

This course covers the skills necessary to market agricultural products, including the development of effective communication skills. The course applies sales strategies and marketing principles to agricultural products and services. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.7.1 Assess the psychology behind sales and professional selling.

- AFNR.HS.7.1.a Identify professional sales techniques.
- AFNR.HS.7.1.b Recognize the psychology of selling agricultural products and the relationship of those products to the general population.
- AFNR.HS.7.1.c Classify the key concepts of sales.

AFNR.HS.7.2 Summarize concepts of sales techniques used in agricultural businesses.

- AFNR.HS.7.2.a Recall the product life cycle for typical agricultural products.
- AFNR.HS.7.2.b Explain the concept of supply and demand, and its relationship to sales.
- AFNR.HS.7.2.c Categorize customer needs and wants.

AFNR.HS.7.3 Analyze the sales process.

- AFNR.HS.7.3.a Identify agricultural sales skills.
- AFNR.HS.7.3.b Identify the appropriate steps to selling an agricultural product.
- AFNR.HS.7.3.c Design a sales presentation.
- AFNR.HS.7.3.d Critique closing techniques within the sales process.

AGRICULTURAL SALES (cont.)

AFNR.HS.7.4 Explain the significance of customer relationships in the selling process.

AFNR.HS.7.4.a Describe the benefits of positive customer relationships and the aspects of customer satisfaction.

AFNR.HS.7.4.b Identify methods of building and maintaining positive customer relationships.

AFNR.HS.7.4.c Demonstrate solutions for handling customer resistance and/or negative reactions.

AFNR.HS.7.5 Critique various marketing strategies for agricultural businesses.

AFNR.HS.7.5.a Describe the role of trade and price in marketing agricultural commodities.

AFNR.HS.7.5.b Analyze a marketing plan and the key elements of marketing (e.g., product, place, price, and promotion).

AFNR.HS.7.5.c Compare traditional marketing strategies for agricultural products.

AFNR.HS.7.5.d Identify innovative, non-traditional marketing strategies for agricultural products.

AFNR.HS.7.6 Analyze the key concepts in a sales portfolio for agricultural communications.

AFNR.HS.7.6.a Define the creative strategy in developing a sales portfolio.

AFNR.HS.7.6.b Draw conclusions regarding successful agricultural sales portfolios and presentations.

AFNR.HS.7.6.c Distinguish available technology aspects found within a sales portfolio or utilized during sales communications.

AFNR.HS.7.6.d Develop a comprehensive marketing plan presentation utilizing a sales portfolio and a variety of communications strategies.

AGRICULTURAL COMMUNICATION

COURSE DESCRIPTION

This course focuses on identifying current issues affecting the agricultural industry and communicating about those issues effectively. This course concentrates onprint, digital, and broadcast media within the agricultural industry. Students will learn various types of communications methods such as speech writing, photography, presentations, marketing, and debate. By the end of the course, students will demonstrate competency of agricultural communications and methods of effective presentation within the agricultural sector. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.4.1 Compare and contrast effective communication techniques in agricultural issues and literacy topics.

AFNR.HS.4.1.a Identify trending issues in historical and modern United States agriculture.

AFNR.HS.4.1.b Classify and compare agricultural communication strategies of goals, target audience, key messages, and producer scenarios.

AFNR.HS.4.1.c Classify methods of communication (e.g., verbal, non-verbal, written, visual).

AFNR.HS.4.2 Demonstrate journalistic writing communication techniques.

AFNR.HS.4.2.a Identify and critique standard rules of grammar, spelling, punctuation, and formatting for news writing.

AFNR.HS.4.2.b Compare and contrast the different types of journalistic writing (e.g., feature story, news release, opinionated).

AFNR.HS.4.2.c Analyze the steps in developing and formatting an effective news story.

AFNR.HS.4.2.d Develop an agricultural news story using accepted strategies (e.g., inverted pyramid, interpretive journalism).

AGRICULTURAL COMMUNICATION (cont.)

AFNR.HS.4.3 Analyze the utilization of graphics as methods of marketing and communicating with clients/customers.

AFNR.HS.4.3.a Compare and contrast the elements of photography (e.g., line, shape, form, texture, pattern, color, space).

AFNR.HS.4.3.b Identify the key elements of magazine advertisement and understand how they are used to enhance an ad's effectiveness.

AFNR.HS.4.3.c Indicate aspects of an effective logo for an agricultural business.

AFNR.HS.4.3.d Utilize graphics as a part of an effective merchandising and advertising plan.

AFNR.HS.4.4 Apply concepts of broadcasting media to agricultural communications.

AFNR.HS.4.4.a Summarize effective communications practices applying to agriculture in the radio communications sector.

AFNR.HS.4.4.b Examine the changes in television communications and the influence it has on the agricultural sector.

AFNR.HS.4.4.c Identify and practice current trends in agricultural podcasting.

AFNR.HS.4.5 Summarize current trends in agricultural communications utilizing online media.

AFNR.HS.4.5.a Compare and contrast social media outlets and identify successful methods of communications utilizing each method.

AFNR.HS.4.5.b Explain key elements of design for online media platforms.

AFNR.HS.4.5.c Explore the methods used in online advertising and summarize processes in designing an online advertisement.

AGRICULTURAL COMMUNICATION (cont.)

AFNR.HS.4.6 Exhibit professional public speaking practices.

AFNR.HS.4.6.a	Define specific speaking techniques as deemed effective in the agricultural industry.
AFNR.HS.4.6.b	Use concepts of public speaking to demonstrate proper agricultural-based public speaking methods.
AFNR.HS.4.6.c	Display competency in agriculture literacy through various agricultural topics.
AFNR.HS.4.6.d	Develop logical arguments to exhibit understanding of agriculture in a debate setting.

AFNR.HS.4.7 Analyze and develop communication methods of a media plan.

AFNR.HS.4.7.a	Explain the steps in selecting a client or situation and effectively identifying their needs.
AFNR.HS.4.7.b	Identify the successful elements of a media plan.
AFNR.HS.4.7.c	Analyze media plans for effective communication methods.
AFNR.HS.4.7.d	Demonstrate concepts of an effective presentation to communicate key points of a media plan.

AGRICULTURAL ECONOMICS

COURSE DESCRIPTION

This course covers economic principles that drive agricultural businesses. The course studies both micro- and macroeconomic principles, production, distribution, pricing, and consumption of agricultural products and the allocation of agricultural resources. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.5.1 Analyze the connection between economic principles and the overall economy at the local, state, national, and global levels.

AFNR.HS.5.1.a Describe agricultural economics and the foundational concepts of micro- and macroeconomics.

AFNR.HS.5.1.b Describe the differences and similarities between micro- and macroeconomics.

AFNR.HS.5.1.c Recognize the impact of governments on economic policies and Practices related to Agriculture, Food and Natural Resources (AFNR).

AFNR.HS.5.1.d Investigate the relationship between various cultural traditions and local, state, national, and global agricultural economies.

AFNR.HS.5.2 Analyze the relationship between micro- and macroeconomics.

AFNR.HS.5.2.a List the production functions within micro- and macroeconomic systems.

AFNR.HS.5.2.b Distinguish labor and capital inputs in agricultural economics.

AFNR.HS.5.2.c Analyze the impact of governmental agencies on agricultural economics through trade policies, production programs, and other opportunities such as low-interest loans, educational programs, and other types of support.

AFNR.HS.5.2.d Describe gross domestic product (GDP).

AGRICULTURAL ECONOMICS (cont.)

AFNR.HS.5.3 Evaluate economic systems and their impact on supply and demand, markets, and production cycles.

AFNR.HS.5.3.a Describe the traditional economy and its place in modern economies.

AFNR.HS.5.3.b Explain the command economy and its benefits and drawbacks within the agricultural economy.

AFNR.HS.5.3.c Define the market economy and its key features.

AFNR.HS.5.3.d Identify a mixed economy and its advantages and disadvantages.

AFNR.HS.5.4 Critique the process of price determination in a competitive market.

AFNR.HS.5.4.a State the influence of supply and demand concepts in marketing, trading, and price determination.

AFNR.HS.5.4.b Identify the importance of utility and price elasticity in agricultural production cycles.

AFNR.HS.5.4.c Relate the influence of supply and demand shifts to the production and pricing of agricultural commodities.

AFNR.HS.5.5 Interpret US agricultural trade policies and exchange rates.

AFNR.HS.5.5.a Identify agricultural trade and measure its growth, instability, and future trends.

AFNR.HS.5.5.b Describe trade restrictions and impact of trade agreements on US agriculture.

AFNR.HS.5.5.c Determine the impact of the exchange rates to determine the impact of agricultural trade on the GDP.

AGRICULTURAL ENTREPRENEURSHIP

COURSE DESCRIPTION

This course covers skills necessary for students to analyze and establish entrepreneurial businesses. The course includes the study of personal and business financial planning, obtaining capital and credit, repaying loans, analyzing financial information, decision-making, developing business plans, and applying sales and marketing principles. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.6.1 Analyze principles of entrepreneurship and its role in the agricultural business sector.

AFNR.HS.6.1.a	Identify the key components of entrepreneurship (e.g., opportunity, resources, organization).
AFNR.HS.6.1.b	Compare the characteristics of entrepreneur in agribusinesses and a manager and/or employee.
AFNR.HS.6.1.c	Summarize techniques used to manage an agricultural business.
AFNR.HS.6.1.d	Explain concept of risk within a business and methods of risk management.

AFNR.HS.6.2 Apply key concepts of personal finance in relation to an entrepreneurial role.

AFNR.HS.6.2.a	Describe the information included in a credit report and the factors that influence a credit score.
AFNR.HS.6.2.b	Identify trends in spending habits using personal and business budgets and balance sheets.
AFNR.HS.6.2.c	Identify assets, liabilities, collateral, and inventory items that are used by entrepreneurs in agricultural businesses.
AFNR.HS.6.2.d	Evaluate options in personal and business finances to improve financial standing and security.

AGRICULTURAL ENTREPRENEURSHIP (cont.)

AFNR.HS.6.3 Summarize the benefits and risks of obtaining business financing as an entrepreneur.

AFNR.HS.6.3.a Compare types of financing available to an entrepreneur and methods of obtaining them from various lenders (e.g., private financers, government programs, grants.)

AFNR.HS.6.3.b Identify options to repay financing while operating as an entrepreneur.

AFNR.HS.6.3.c Calculate interest rates and tabulate the possible cost savings for a business utilizing different repayment schedules.

AFNR.HS.6.3.d Investigate the most logical financing and repayment options for an individual entrepreneur.

AFNR.HS.6.4 Differentiate between tax strategies and resources (such as government agencies and private programs) available to assist beginning and experienced entrepreneurs in agriculture businesses.

AFNR.HS.6.4.a Identify tax strategies available to business owners to decrease the tax burden.

AFNR.HS.6.4.b Identify programs and identify governmental regulations related to a specific AFNR-related business available to entrepreneurs through government agencies or private institutions.

AFNR.HS.6.4.c Identify government resources and organizations that will help navigate regulations in following guidelines (e.g., opening a farmers' market and following rules and regulations).

AFNR.HS.6.4.d Compare and contrast the advantages and disadvantages of selecting specific courses of action utilizing available resources.

AGRICULTURAL ENTREPRENEURSHIP (cont.)

AFNR.HS.6.5 Analyze break-even points in agricultural businesses.

AFNR.HS.6.5.a Utilize income statements to establish cash flow statements.

AFNR.HS.6.5.b Calculate break-even points for agricultural businesses (e.g., crop-based, livestock-based, service-based, diversified).

AFNR.HS.6.5.c Estimate the cost or cost-savings of purchasing, leasing, renting, and/or otherwise obtaining resources for an agricultural business based on break-even points.

AFNR.HS.6.6 Apply entrepreneurial business and marketing principles for agricultural products, services and businesses.

AFNR.HS.6.6.a Create a new product/business using entrepreneurial skills and financial planning documentation.

AFNR.HS.6.6.b Identify the key concepts of a successful launch for a traditional or non-traditional agricultural product/service or business.

AFNR.HS.6.6.c Identify marketing strategies used to capture consumer interest and the factors of selling agricultural products/services.

AFNR.HS.6.6.d Utilize technology for record-keeping and other financial transactions/plans for an agricultural business.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course will provide students with fundamental skills for success in agricultural careers and team environments. Students will investigate a variety of topics essential to career exploration and readiness in Agriculture, Food, and Natural Resources. In addition, students will develop skills in ethical leadership, communications, and teamwork. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs and activities.

STANDARDS AND INDICATORS:

AFNR.HS.10.1 Evaluate career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

AFNR.HS.10.1.a	Demonstrate personal responsibility in the workplace and community.
AFNR.HS.10.1.b	Demonstrate career readiness skills for career success.
AFNR.HS.10.1.c	Evaluate the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.10.1.d	Apply appropriate academic and technical skills to demonstrate career success.
AFNR.HS.10.1.e	Examine career opportunities that are matched to personal life skills and talents and career goals in an AFNR pathway of interest.

AFNR.HS.10.2 Develop employability skills for college and career readiness within AFNR.

AFNR.HS.10.2.a	Model personal responsibility and demonstrate safety in the workplace and community.
AFNR.HS.10.2.b	Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.
AFNR.HS.10.2.c	Apply reason and logic to evaluate workplace and community situations from multiple perspectives.
AFNR.HS.10.2.d	Investigate, prioritize, and select solutions to solve problems in the workplace community.
AFNR.HS.10.2.e	Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.10.2.f	Identify and demonstrate personal financial management and planning.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING (cont.)

AFNR.HS.10.3 Model teamwork and leadership skills in work groups.

AFNR.HS.10.3.a Employ cooperative leadership skills to accomplish a team goal.

AFNR.HS.10.3.b Model proper management of teams and large groups.

AFNR.HS.10.3.c Contribute to team-oriented projects to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.10.4 Model integrity, ethical leadership, and effective management in AFNR career areas.

AFNR.HS.10.4.a Model characteristics of ethical and effective leaders in the workplace and community.

AFNR.HS.10.4.b Implement personal management skills to function effectively and efficiently in the workplace.

AFNR.HS.10.4.c Demonstrate workplace characteristics that contribute to a positive morale and workplace environment.

AFNR.HS.10.4.d Demonstrate ethical decision-making in real-life situations in agriculture, food, and natural resources.

AFNR.HS.10.5 Communicate information relevant to agriculture clearly, effectively, and with reason.

AFNR.HS.10.5.a Demonstrate basic information research skills and techniques.

AFNR.HS.10.5.b Produce clear, reasoned, and coherently produced, verbal, or visual communication for formal or informal settings.

AFNR.HS.10.5.c Communicate using strategies that ensure clarity, logic, purpose, and professionalism in formal or informal settings.

AFNR.HS.10.5.d Utilize new technologies, tools, and applications to maximize productivity and minimize risk in the workplace and community.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basics of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE.
AFNR.HS.20.2.c	Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a	Inventory personal work preferences and interests related to the AFNR Career Field.
AFNR.HS.20.3.b	Identify careers available in multiple AFNR Career Pathways.
AFNR.HS.20.3.c	Determine common qualities of a specific career area (e.g., educational requirements, work environment).
AFNR.HS.20.3.d	Identify necessary steps to prepare for a specific AFNR careers (coursework, post-secondary, needed skills).
AFNR.HS.20.3.e	Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a	Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).
AFNR.HS.20.4.b	Summarize the components that comprise all ecosystems.
AFNR.HS.20.4.c	Compare and categorize biotic and abiotic factors in various habitats.
AFNR.HS.20.4.d	Identify the importance of water and air quality.
AFNR.HS.20.4.e	Identify the physical qualities of the soil that determine use for the environmental service system.
AFNR.HS.20.4.f	Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
AFNR.HS.20.5.c	Differentiate production animals from companion animals.
AFNR.HS.20.5.d	Classify the major components of production animal systems (e.g., feedlots, cow-calf operations, farrow, finish) and regional distribution.
AFNR.HS.20.5.e	Categorize uses for and products generated from production animals.
AFNR.HS.20.5.f	Classify and determine uses for companion animals.

AFNR.HS.20.6 Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.

AFNR.HS.20.6.a	Classify major components of the plant industry.
AFNR.HS.20.6.b	Classify plants according to life cycles.
AFNR.HS.20.6.c	Identify the function of plant parts.
AFNR.HS.20.6.d	Identify basic processes and role of photosynthesis, respiration, and transpiration.
AFNR.HS.20.6.e	Differentiate between sexual and asexual propagation techniques.

AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

AFNR.HS.20.8.a Evaluate how different foods affect the human body and its physical and cellular processes.

AFNR.HS.20.8.b Identify food safety and sanitation procedures for handling and processing to as sure food quality.

AFNR.HS.20.8.c Summarize food safety procedures when storing and distributing products to consumption.

AFNR.HS.20.8.d Explain the producer-to-consumer processes in the food industry.

AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

AFNR.HS.20.9.a Define major sectors within the agribusiness industry.

AFNR.HS.20.9.b Identify standard production and agribusiness records and plans.

AFNR.HS.20.9.c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.

AFNR.HS.20.9.d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.

AFNR.HS.20.9.e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.10.a Identify and practice safe laboratory practices and procedures.

AFNR.HS.20.10.b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.

AFNR.HS.20.10.c Develop an agricultural project plan with the required project plan components (e.g., purpose, materials, budget, skills required, timeframe).

AFNR.HS.20.10.d Assess a project plan to completion.

ANIMAL SCIENCE

COURSE DESCRIPTION

This course focuses on the basic scientific principles and processes that are involved in animal physiology, breeding, nutrition, and care in preparation for an animal systems career. Topics include introduction to animal science, animal reproduction, animal nutrition, animal science issues, animal evaluation, and career opportunities. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.11.1 Analyze historic and current trends impacting the animal system industry.

AFNR.HS.11.1.a	Identify and summarize the origin, significance, distribution, and domestication of different animal species.
AFNR.HS.11.1.b	Compare and contrast animal production methods for use in animal systems based upon their effectiveness and impacts.
AFNR.HS.11.1.c	Research and summarize major components of animal systems (e.g., livestock, companion animals).

AFNR.HS.11.2 Evaluate animals based on anatomical and physiological characteristics.

AFNR.HS.11.2.a	Classify animals according to taxonomic classification systems and use (e.g., companion, production).
AFNR.HS.11.2.b	Identify and summarize the properties, locations, functions, and types of animal cells, tissues, organs, and body systems.
AFNR.HS.11.2.c	Apply knowledge of anatomical and physiological characteristics of animals to select animals for specific purposes (e.g., meat animals, breeding animals, seedstock.

ANIMAL SCIENCE (cont.)

AFNR.HS.11.3 Critique best-practice protocols based upon animal behaviors for animal husbandry and welfare.

AFNR.HS.11.3.a Explain the implications of animal welfare and animal rights for animal systems.

AFNR.HS.11.3.b Summarize the challenges involved in working with animals and resources available to overcome them (e.g., tools, technology, equipment, facilities, animal behavior signals).

AFNR.HS.11.3.c Evaluate animal welfare procedures used to ensure safety and maintain low stress when moving and restraining animals.

AFNR.HS.11.4 Apply reproductive principles to animal selection, breeding, and production.

AFNR.HS.11.4.a Identify and categorize reproductive organs of major animal species.

AFNR.HS.11.4.b Identify and summarize inheritance and terms related to inheritance within animal breeding (e.g., dominant, co-dominant,recessive, homozygous, heterozygous).

AFNR.HS.11.4.c Compare and contrast various breeding systems (e.g., artificial insemination, embryo transfer, hand breeding).

AFNR.HS.11.4.d Assess and describe factors that lead to reproductive maturity.

AFNR.HS.11.4.e Evaluate and select animals for reproductive readiness.

AFNR.HS.11.5 Analyze the nutritional needs of animals.

AFNR.HS.11.5.a Identify and summarize essential nutrients required for animal health.

AFNR.HS.11.5.b Analyze each nutrient's role in growth and performance.

AFNR.HS.11.5.c Differentiate between nutritional needs of animal species based on a variety of factors (e.g., types of digestive systems, production goals, management system, growth stage, reproductive stage).

SMALL ANIMAL MANAGEMENT

COURSE DESCRIPTION

This course focuses on the management and care of small animals. Topics include animal welfare and handling, nutrition, reproduction, facility management, and small animal health care. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.28.1 Analyze best-practice protocols based upon animal behaviors for animal husbandry and welfare.

AFNR.HS.28.1.a Describe and demonstrate management techniques that ensure animal welfare.

AFNR.HS.28.1.b Identify and categorize tools, technology, and equipment used in small animal management to ensure animal welfare (e.g., feeding, handling, grooming).

AFNR.HS.28.1.c Evaluate safety procedures and plans for working with animals by species using information based on animal behavior and responses.

AFNR.HS.28.2 Design and provide proper animal nutrition to achieve desired outcomes for performance, development, reproduction, and/or economic production.

AFNR.HS.28.2.a Analyze the nutritional needs of small animals in different growth stages and production systems.

AFNR.HS.28.2.b Examine and summarize the purpose of various components of animal food labels and feeding directions.

AFNR.HS.28.2.c Create a designated feeding and nutrition plan for small animals based on nutritional requirements.

SMALL ANIMAL MANAGEMENT (cont.)

AFNR.HS.28.3 Apply principles of animal reproduction to achieve desired outcomes for performance, development, and/or economic production.

AFNR.HS.28.3.a Identify and differentiate between the needs of breeding animals based on their growth stages (e.g., newborn, lactation, getstation).

AFNR.HS.28.3.b Demonstrate how to determine probability trait inheritance in animals.

AFNR.HS.28.3.c Select and evaluate breeding animals and determine the probability of a given trait in the offspring.

AFNR.HS.28.4 Evaluate environmental factors affecting performance and implement procedures for enhancing performance and animal health.

AFNR.HS.28.4.a Differentiate between the types of facilities needed to house and produce small animal species safely and efficiently.

AFNR.HS.28.4.b Identify and summarize the general requirements that must be met in facilities for animal housing and production.

AFNR.HS.28.4.c Design animal housing, equipment, and handling facilities focusing on animal requirements, economic efficiency, sustainability, safety, and ease of handling.

AFNR.HS.28.5 Apply principles of effective animal health care to the management of small animals.

AFNR.HS.28.5.a Identify and describe common illnesses and disorders of small animals based on symptoms and problems caused by wounds, diseases, parasites, and physiological disorders.

AFNR.HS.28.5.b Describe and demonstrate the proper use and function of specific tools and technology related to small animal health management.

AFNR.HS.28.5.c Research and analyze procedures at the local, state, and national levels to ensure biosecurity of the animal industry.

AFNR.HS.28.5.d Develop a biosecurity plan and procedures to prevent the spread of disease in small animals.

LARGE ANIMAL MANAGEMENT

COURSE DESCRIPTION

This course includes advanced scientific principles and communication skills that build on the knowledge and skills learned in Animal Science. Topics include production methods, animal welfare, nutrition, biosecurity, and housing. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.22.1 Analyze animal production methods for use in animal systems based upon their effectiveness and impacts.

AFNR.HS.22.1.a Identify and categorize terms and methods related to animal production (e.g., sustainable, conventional, humanely raised, natural, organic).

AFNR.HS.22.1.b Identify marketing methods for animal products and services (e.g., conventional, niche markets, locally grown).

AFNR.HS.22.1.c Assess the impact of animal production methods on end-product qualities (e.g., price, sustainability, marketing, labeling, animal welfare).

AFNR.HS.22.2 Justify management techniques that ensure animal welfare.

AFNR.HS.22.2.a Distinguish between animal husbandry practices that promote animal welfare and those that do not.

AFNR.HS.22.2.b Devise, implement, and evaluate safety procedures and plans for working with animals by species using information based on animal behavior and responses.

AFNR.HS.22.2.c Design animal handling programs and procedures that assure the welfare of animals and prevent abuse or mistreatment.

LARGE ANIMAL MANAGEMENT (cont.)

AFNR.HS.22.3 Design feed rations to meet the nutritional needs of animals.

AFNR.HS.22.3.a	Compare and contrast common types of feedstuffs for various species and the roles they play in the diets of those animals.
AFNR.HS.22.3.b	Determine the relative nutritional value of feedstuffs by evaluating their general quality and condition.
AFNR.HS.22.3.c	Differentiate between nutritional needs of animals in different growth stages and production systems (e.g., maintenance, gestation, natural, organic).
AFNR.HS.22.3.d	Analyze balanced rations for animals based on the animal's growth stage (e.g., maintenance, newborn, gestation, lactation).
AFNR.HS.22.3.e	Demonstrating the relationship between the nutrient requirements and the feedstuffs provided.
AFNR.HS.22.3.f	Analyze the adequacy of feed rations using data from the analysis of feedstuffs, animal requirements, and performance.

AFNR.HS.22.4 Analyze biosecurity measures utilized to protect the welfare of animals on a local, state, national, and global level.

AFNR.HS.22.4.a	Summarize the importance of biosecurity to the animal industry at multiple levels (e.g., local, state, national, global).
AFNR.HS.22.4.b	Analyze procedures at the local, state, and national levels to ensure biosecurity of the animal industry.
AFNR.HS.22.4.c	Evaluate a biosecurity plan for an animal production operation.

AFNR.HS.22.5 Design animal housing and equipment and handling facilities for the major systems of animal production.

AFNR.HS.22.5.a	Differentiate between the types of housing facilities utilized to produce animal species safely and efficiently.
AFNR.HS.22.5.b	Analyze designs for an animal facility and prescribe alternative layouts and adjustments for the safe, sustainable, and efficient use of the facility.
AFNR.HS.22.5.c	Design an animal facility focusing on animal requirements, economic efficiency, sustainability, safety, and ease of handling.

VETERINARY SCIENCE

COURSE DESCRIPTION

This course introduces students to the basics of veterinary care. Topics covered include general animal care and welfare, animal health, laws and ethics relating to animal care, and workplace safety involving large, small, and exotic animals. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.29.1 Assess animal production methods for use in animal systems based upon their effectiveness and impacts.

AFNR.HS.29.1.a Summarize the challenges involved in working with animals and identify resources available to overcome those challenges (e.g., tools, technology, equipment, facilities, animal behavior signals).

AFNR.HS.29.1.b Investigate animal husbandry practices and their impact on animal welfare.

AFNR.HS.29.1.c Compare the efficacy of different production methods and defend the use of selected methods using data and evidence.

AFNR.HS.29.2 Apply principles of comparative anatomy and physiology to uses within various animal systems.

AFNR.HS.29.2.a Compare and contrast animal cells, tissues, organs, body system types, and functions among species.

AFNR.HS.29.2.b Correlate the functions of animal cell structures to animal systems (e.g., growth, development, health, reproduction).

AFNR.HS.29.2.c Summarize the effect of anatomical and physiological disorders on animal health.

AFNR.HS.29.2.d Apply knowledge of anatomical and physiological characteristics of animals to make production, care, and management decisions.

VETERINARY SCIENCE (cont.)

AFNR.HS.29.3 Investigate methods of preventing and treating animal diseases, parasites, and other disorders to ensure animal welfare.

AFNR.HS.29.3.a Describe and demonstrate the proper use and function of specific tools and technology related to animal health management.

AFNR.HS.29.3.b Summarize the characteristics and symptoms of disorders that affect animals (e.g., wounds, common diseases, parasites, and physiological disorders) and example treatments.

AFNR.HS.29.3.c Explain the clinical significance of common veterinary methods and treatment (e.g., aseptic techniques, antibiotic use, wound management).

AFNR.HS.29.3.d Identify surgical and non-surgical veterinary treatments and procedures to meet specific animal health care objectives.

AFNR.HS.29.4 Analyze laws pertaining to animal systems.

AFNR.HS.29.4.a Summarize the structure of laws governing animal systems (e.g., animal production, harvesting, international trade policies).

AFNR.HS.29.4.b Analyze animal facilities to determine if government regulations and accepted safety standards have been met.

AFNR.HS.29.4.c Evaluate the impact of laws pertaining to animal agriculture (e.g., pros, cons, effect on individuals, effect on businesses) and assess the compliance of production practices with established regulations.

AFNR.HS.29.5 Analyze workplace safety laws and types of hazards and evaluate methods for handling and restraining large, small, and exotic animals.

AFNR.HS.29.5.a Identify commonly used veterinary terminology, convert commonly used weights and measures, and apply the terminology to routine veterinary practices.

AFNR.HS.29.5.b Analyze the health risk of different zoonotic diseases to humans and identify prevention methods.

AFNR.HS.29.5.c Evaluate preventative measures for controlling and limiting the spread of diseases, parasites, and disorders among animals.

AFNR.HS.29.5.d Evaluate various forms of handling and restraining large, small, and exotic animals.

AGRICULTURAL BIOTECHNOLOGY

COURSE DESCRIPTION

A course focusing on students examining the relationship between biotechnology and modern agriculture, food, and natural resource systems. Students identify purposes and methods of genetic modification of plants and animals and the impact of biotechnology on a global scale. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.2.1 Assess factors that have influenced the evolution of biotechnology in agriculture.

AFNR.HS.2.1.a Summarize the evolution of biotechnology in agriculture.

AFNR.HS.2.1.b Summarize current work in biotechnology and the added value to agriculture and society.

AFNR.HS.2.1.c Compare and contrast the benefits and risks of biotechnology and conventional approaches to improving agriculture.

AFNR.HS.2.2 Evaluate the scope and implications of bioethics, law, and public perceptions of biotechnology in agriculture.

AFNR.HS.2.2.a Compare and contrast global regulatory systems for biotechnology in agriculture.

AFNR.HS.2.2.b Summarize the emergence, evolution, and implications of bioethics associated with biotechnology in agriculture.

AFNR.HS.2.2.c Describe the significance and impacts of legal issues related to biotechnology in agriculture.

AFNR.HS.2.2.d Investigate the impact of public perceptions on the application of biotechnology in different agriculture, food and natural resources (AFNR) systems.

AGRICULTURAL BIOTECHNOLOGY (cont.)

AFNR.HS.2.3 Apply appropriate laboratory skills to complete tasks in a biotechnology research and development environment (e.g., standard operating procedures, record keeping, aseptic technique, equipment maintenance).

AFNR.HS.2.3.a Maintain and interpret records documented in a laboratory to ensure data accuracy and integrity (e.g., avoid bias, record any conflicts of interest, avoid misinterpreted results).

AFNR.HS.2.3.b Categorize and identify laboratory equipment according to its purpose in scientific research.

AFNR.HS.2.3.c Apply standard operating procedures for the safe handling, management, and disposal of biological and chemical materials in a laboratory according to standard operating procedures.

AFNR.HS.2.3.d Identify the steps necessary to perform simple genetic modification.

AFNR.HS.2.4 Apply concepts of biotechnology to solve problems in Agriculture, Food, and Natural Resources (AFNR) systems (e.g., bioengineering, food processing, waste management, horticulture, forestry, livestock, crops).

AFNR.HS.2.4.a Identify biotechnology principles, techniques, and processes to create transgenic species through genetic engineering.

AFNR.HS.2.4.b Explain biotechnology principles, techniques, and processes to enhance the production of food through the use of microorganisms and enzymes.

AFNR.HS.2.4.c Apply biotechnology principles, techniques, and processes to protect the environment and maximize use of natural resources (e.g., biomass, bioprospecting, industrial biotechnology).

AFNR.HS.2.4.d Apply biotechnology principles, techniques, and processes to enhance plant and animal care and production (e.g., selective breeding, pharmaceuticals, biodiversity).

AFNR.HS.2.4.e Apply biotechnology principles, techniques and processes to produce biofuels (e.g., fermentation, transesterification, methanogenesis).

AFNR.HS.2.4.f Apply biotechnology principles, techniques, and processes to improve waste management (e.g., genetically modified organisms, bioremediation).

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course will provide students with fundamental skills for success in agricultural careers and team environments. Students will investigate a variety of topics essential to career exploration and readiness in Agriculture, Food, and Natural Resources. In addition, students will develop skills in ethical leadership, communications, and teamwork.

STANDARDS AND INDICATORS:

AFNR.HS.10.1 Evaluate career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

AFNR.HS.10.1.a	Demonstrate personal responsibility in the workplace and community.
AFNR.HS.10.1.b	Demonstrate career readiness skills for career success.
AFNR.HS.10.1.c	Evaluate the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.10.1.d	Apply appropriate academic and technical skills to demonstrate career success.
AFNR.HS.10.1.e	Examine career opportunities that are matched to personal life skills and talents and career goals in an AFNR pathway of interest.

AFNR.HS.10.2 Develop employability skills for college and career readiness within AFNR.

AFNR.HS.10.2.a	Model personal responsibility and demonstrate safety in the workplace and community.
AFNR.HS.10.2.b	Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.
AFNR.HS.10.2.c	Apply reason and logic to evaluate workplace and community situations from multiple perspectives.
AFNR.HS.10.2.d	Investigate, prioritize, and select solutions to solve problems in the workplace community.
AFNR.HS.10.2.e	Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.10.2.f	Identify and demonstrate personal financial management and planning.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING (cont.)

AFNR.HS.10.3 Model teamwork and leadership skills in work groups.

AFNR.HS.10.3.a Employ cooperative leadership skills to accomplish a team goal.

AFNR.HS.10.3.b Model proper management of teams and large groups.

AFNR.HS.10.3.c Contribute to team-oriented projects to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.10.4 Model integrity, ethical leadership, and effective management in AFNR career areas.

AFNR.HS.10.4.a Model characteristics of ethical and effective leaders in the workplace and community.

AFNR.HS.10.4.b Implement personal management skills to function effectively and efficiently in the workplace.

AFNR.HS.10.4.c Demonstrate workplace characteristics that contribute to a positive morale and workplace environment.

AFNR.HS.10.4.d Demonstrate ethical decision-making in real-life situations in agriculture, food, and natural resources.

AFNR.HS.10.5 Communicate information relevant to agriculture clearly, effectively, and with reason.

AFNR.HS.10.5.a Demonstrate basic information research skills and techniques.

AFNR.HS.10.5.b Produce clear, reasoned, and coherently produced, verbal, or visual communication for formal or informal settings.

AFNR.HS.10.5.c Communicate using strategies that ensure clarity, logic, purpose, and professionalism in formal or informal settings.

AFNR.HS.10.5.d Utilize new technologies, tools, and applications to maximize productivity and minimize risk in the workplace and community.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basics of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE.
AFNR.HS.20.2.c	Articulate elements of career plans (e.g. academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a Inventory personal work preferences and interests related to the AFNR Career Field.

AFNR.HS.20.3.b Identify careers available in multiple AFNR Career Pathways.

AFNR.HS.20.3.c Determine common qualities of a specific career area (e.g., educational requirements, work environment).

AFNR.HS.20.3.d Identify necessary steps to prepare for a specific AFNR careers (coursework, post-secondary, needed skills).

AFNR.HS.20.3.e Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).

AFNR.HS.20.4.b Summarize the components that comprise all ecosystems.

AFNR.HS.20.4.c Compare and categorize biotic and abiotic factors in various habitats.

AFNR.HS.20.4.d Identify the importance of water and air quality.

AFNR.HS.20.4.e Identify the physical qualities of the soil that determine use for the environmental service system.

AFNR.HS.20.4.f Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
AFNR.HS.20.5.c	Differentiate production animals from companion animals.
AFNR.HS.20.5.d	Classify the major components of production animal systems (e.g., feedlots, cow-calf operations, farrow, finish) and regional distribution.
AFNR.HS.20.5.e	Categorize uses for and products generated from production animals.
AFNR.HS.20.5.f	Classify and determine uses for companion animals.

AFNR.HS.20.6 Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.

AFNR.HS.20.6.a	Classify major components of the plant industry.
AFNR.HS.20.6.b	Classify plants according to life cycles.
AFNR.HS.20.6.c	Identify the function of plant parts.
AFNR.HS.20.6.d	Identify basic processes and role of photosynthesis, respiration, and transpiration.
AFNR.HS.20.6.e	Differentiate between sexual and asexual propagation techniques.

AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

- AFNR.HS.20.8.a Evaluate how different foods affect the human body and its physical and cellular processes.
- AFNR.HS.20.8.b Identify food safety and sanitation procedures for handling and processing to as sure food quality.
- AFNR.HS.20.8.c Summarize food safety procedures when storing and distributing products to consumption.
- AFNR.HS.20.8.d Explain the producer-to-consumer processes in the food industry.

AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

- AFNR.HS.20.9.a Define major sectors within the agribusiness industry.
- AFNR.HS.20.9.b Identify standard production and agribusiness records and plans.
- AFNR.HS.20.9.c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.
- AFNR.HS.20.9.d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.
- AFNR.HS.20.9.e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Synthesize the historical, social, cultural, and potential applications of biotechnology.

- AFNR.HS.20.10.a Identify and practice safe laboratory practices and procedures.
- AFNR.HS.20.10.b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.
- AFNR.HS.20.10.c Develop an agricultural project plan with the required project plan components (e.g., purpose, materials, budget, skills required, timeframe).
- AFNR.HS.20.10.d Assess a project plan to completion.

DIVERSIFIED AGRICULTURE

COURSE DESCRIPTION

This course is the intermediate course in the Diversified Agriculture program of study in the Agriculture, Food, and Natural Resources (AFNR) career field. The course will further explore systems introduced in the Introduction to Agriculture, Food, and Natural Resources course, focusing on the interconnectivity of the systems. This course provides students with diverse knowledge and skillset to focus on issues from a diverse standpoint. Students will explore indicators integrated within the context of Animal, Plant, and Environmental and Natural Resources Pathways. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs and activities.

STANDARDS AND INDICATORS:

AFNR.HS.13.1 Analyze the interrelationships of natural resources and humans.

AFNR.HS.13.1.a	Describe the relationship between natural resources, ecosystems, and human activity.
AFNR.HS.13.1.b	Compare and contrast nonrenewable and renewable natural resources.
AFNR.HS.13.1.c	Explain how human activity affects the use and availability of natural resources (e.g., agriculture, industry, transportation).
AFNR.HS.13.1.d	Identify technologies used in harvesting, managing, improving, enhancing, and conserving natural resources.

AFNR.HS.13.2 Differentiate animal production methods for use in animal systems based upon their effectiveness and impacts.

AFNR.HS.13.2.a	Investigate fundamental biological processes in animals (e.g., digestion, reproduction, growth).
AFNR.HS.13.2.b	Apply principles of genetics to breeding and reproductive technology in animal systems (e.g., pure breeding, crossbreeding, grading) .
AFNR.HS.13.2.c	Analyze essential nutrient's role in animal growth and performance.
AFNR.HS.13.2.d	Explain the implications of animal welfare and animal rights for animal systems and distinguish between animal production practices (e.g., handling procedures, tools, facilities) that promote animal welfare and those that do not.

DIVERSIFIED AGRICULTURE (cont.)

AFNR.HS.13.3 Analyze the influence of environmental factors on plant growth and propagation.

AFNR.HS.13.3.a Summarize the sources and effects of plant-growing media, water, air, and light on plant growth.

AFNR.HS.13.3.b Analyze factors that affect photosynthesis, respiration, transpiration, translocation, and assimilation rates in plants.

AFNR.HS.13.3.c Identify the essential nutrients for plant growth and development and the correction of nutrient deficiencies.

AFNR.HS.13.3.d Characterize plant diseases, pests, disorders, and control measures.

AFNR.HS.13.3.e Demonstrate techniques used to propagate plants sexually and asexually (e.g., seeds, cuttings, grafting).

AFNR.HS.13.4 Investigate modern biotechnology applications, processes, scientific procedures, and ethical considerations.

AFNR.HS.13.4.a Compare and contrast common applications and methods of modern biotechnology (e.g., foods, fuels, pharmaceuticals, environmental).

AFNR.HS.13.4.b Investigate ethical considerations for the application of biotechnology within several fields (e.g., animal, plant, biofuels, natural resources).

AFNR.HS.13.4.c Design a communications plan to inform consumers about modern biotechnological applications.

AFNR.HS.13.5 Examine and explain the historical and current development of food products and processing.

AFNR.HS.13.5.a Examine consumer trends in food products and processing.

AFNR.HS.13.5.b Analyze strategies to create food products meeting and developing consumer trends.

AFNR.HS.13.5.c Assess industry standards in food products and processing.

DIVERSIFIED AGRICULTURE (cont.)

AFNR.HS.13.6 Utilize record keeping to accomplish business objectives in AFNR systems.

AFNR.HS.13.6.a Utilize financial reports to guide decision making. (e.g., break even, income statements, equity statements, budgets, cash flow, taxes).

AFNR.HS.13.6.b Apply risk management strategies.

AFNR.HS.13.6.c Analyze essential human resources within business enterprises.

AFNR.HS.13.7 Investigate and apply modern science and engineering principles for the use and maintenance of agricultural structures and equipment to improve performance.

AFNR.HS.13.7.a Determine structural requirements and specifications for agricultural structures.

AFNR.HS.13.7.b Develop maintenance plans for structures and equipment.

AFNR.HS.13.7.c Apply technology to improve efficiency in agricultural systems.

AFNR.HS.13.7.d Understand the operation and maintenance of agricultural equipment and power systems.

INTEGRATED AGRICULTURAL SCIENCE

COURSE DESCRIPTION

Integrated Ag Science is the capstone course in the Diversified Agriculture program of study in the Agriculture, Food, and Natural Resources (AFNR) career field. The course is designed to explore the interconnectedness of agriculture, within the broad goal of creating solutions to local and global issues within AFNR systems. Students will consider current and historical issues affecting or affected by AFNR, and utilize current knowledge and technology in addressing these issues. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.19.1 Implement production and management plans in Agricultural, Food and Natural Resources (AFNR) systems (e.g., broiler houses, dairy farms, grain production, greenhouses, turf grass management, feed yards.)

AFNR.HS.19.1.a	Compare and contrast methods to assure needs the needs of living organisms (e.g., nutritional, health, environmental, biosecurity) are met efficiently and economically.
AFNR.HS.19.1.b	Identify pest control strategies associated with integrated pest management and the importance of determining economic threshold.
AFNR.HS.19.1.c	Design structural (e.g., housing, equipment, handling, processing, storage) facilities for the major systems of agriculture that are effective and efficient.
AFNR.HS.19.1.d	Implement appropriate equipment and power systems in the agricultural industry.
AFNR.HS.19.1.e	Analyze practices used to maintain a safe product through production, harvest, processing, storage, and shipment to ensure products are safe for consumption.
AFNR.HS.19.1.f	Compare methods used to reduce the effects of rural and/or urban production on the environment.
AFNR.HS.19.1.g	Summarize the types, purposes, and characteristics of effective planning, risk management, marketing, record keeping, and documentation practices for AFNR systems.
AFNR.HS.19.1.h	Interpret the economic impact of the agriculture industry to the local community, state, nation, and world.
AFNR.HS.19.1.i	Assess the alignment of modern technologies used in production systems (e.g., precision agriculture, biotechnology, veterinary, housing) with USDA sustainable practices criteria.

INTEGRATED AGRICULTURAL SCIENCE (cont.)

AFNR.HS.19.2 Develop reasoned solutions to agricultural issues, problems, and applications using data, science, research, and technology. (e.g., trade policy, climate change, sustainability in agriculture, rural infrastructure, Farm bill, food safety, farm financial stress, agricultural labor reform, world hunger)

AFNR.HS.19.2.a Assess a variety of agricultural situations and devise ways to improve efficiency and value to production, processes, and/or procedures.

AFNR.HS.19.2.b Investigate and determine the root cause of a problem.

AFNR.HS.19.2.c Create an implementation plan, considering prioritized solutions, to act on new ideas.

AFNR.HS.19.2.d Consider the economic, social, community, environmental, and personal impact of solutions.

AFNR.HS.19.3 Apply management skills to organize and guide decisions in the agricultural industry.

AFNR.HS.19.3.a Utilize industry standards to manage physical, financial, and human resources.

AFNR.HS.19.3.b Identify applicable local, state, federal, and international laws and regulations.

AFNR.HS.19.3.c Develop business goals and purpose-guiding resource allocation and operation.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course will provide students with fundamental skills for success in agricultural careers and team environments. Students will investigate a variety of topics essential to career exploration and readiness in Agriculture, Food, and Natural Resources. In addition, students will develop skills in ethical leadership, communications, and teamwork. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.10.1 Evaluate career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

AFNR.HS.10.1.a	Demonstrate personal responsibility in the workplace and community.
AFNR.HS.10.1.b	Demonstrate career readiness skills for career success.
AFNR.HS.10.1.c	Evaluate the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.10.1.d	Apply appropriate academic and technical skills to demonstrate career success.
AFNR.HS.10.1.e	Examine career opportunities that are matched to personal life skills and talents and career goals in an AFNR pathway of interest.

AFNR.HS.10.2 Develop employability skills for college and career readiness within AFNR.

AFNR.HS.10.2.a	Model personal responsibility and demonstrate safety in the workplace and community.
AFNR.HS.10.2.b	Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.
AFNR.HS.10.2.c	Apply reason and logic to evaluate workplace and community situations from multiple perspectives.
AFNR.HS.10.2.d	Investigate, prioritize, and select solutions to solve problems in the workplace community.
AFNR.HS.10.2.e	Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.10.2.f	Identify and demonstrate personal financial management and planning.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING (cont.)

AFNR.HS.10.3 Model teamwork and leadership skills in work groups.

AFNR.HS.10.3.a Employ cooperative leadership skills to accomplish a team goal.

AFNR.HS.10.3.b Model proper management of teams and large groups.

AFNR.HS.10.3.c Contribute to team-oriented projects to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.10.4 Model integrity, ethical leadership, and effective management in AFNR career areas.

AFNR.HS.10.4.a Model characteristics of ethical and effective leaders in the workplace and community.

AFNR.HS.10.4.b Implement personal management skills to function effectively and efficiently in the workplace.

AFNR.HS.10.4.c Demonstrate workplace characteristics that contribute to a positive morale and workplace environment.

AFNR.HS.10.4.d Demonstrate ethical decision-making in real-life situations in agriculture, food, and natural resources.

AFNR.HS.10.5 Communicate information relevant to agriculture clearly, effectively, and with reason.

AFNR.HS.10.5.a Demonstrate basic information research skills and techniques.

AFNR.HS.10.5.b Produce clear, reasoned, and coherently produced, verbal, or visual communication for formal or informal settings.

AFNR.HS.10.5.c Communicate using strategies that ensure clarity, logic, purpose, and professionalism in formal or informal settings.

AFNR.HS.10.5.d Utilize new technologies, tools, and applications to maximize productivity and minimize risk in the workplace and community.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basics of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE.
AFNR.HS.20.2.c	Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a Inventory personal work preferences and interests related to the AFNR Career Field.

AFNR.HS.20.3.b Identify careers available in multiple AFNR Career Pathways.

AFNR.HS.20.3.c Determine common qualities of a specific career area (e.g., educational requirements, work environment).

AFNR.HS.20.3.d Identify necessary steps to prepare for a specific AFNR careers (coursework, post-secondary, needed skills).

AFNR.HS.20.3.e Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).

AFNR.HS.20.4.b Summarize the components that comprise all ecosystems.

AFNR.HS.20.4.c Compare and categorize biotic and abiotic factors in various habitats.

AFNR.HS.20.4.d Identify the importance of water and air quality.

AFNR.HS.20.4.e Identify the physical qualities of the soil that determine use for the environmental service system.

AFNR.HS.20.4.f Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
AFNR.HS.20.5.c	Differentiate production animals from companion animals.
AFNR.HS.20.5.d	Classify the major components of production animal systems (e.g., feedlots, cow-calf operations, farrow, finish) and regional distribution.
AFNR.HS.20.5.e	Categorize uses for and products generated from production animals.
AFNR.HS.20.5.f	Classify and determine uses for companion animals.

AFNR.HS.20.6 Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.

AFNR.HS.20.6.a	Classify major components of the plant industry.
AFNR.HS.20.6.b	Classify plants according to life cycles.
AFNR.HS.20.6.c	Identify the function of plant parts.
AFNR.HS.20.6.d	Identify basic processes and role of photosynthesis, respiration, and transpiration.
AFNR.HS.20.6.e	Differentiate between sexual and asexual propagation techniques.

AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

AFNR.HS.20.8.a Evaluate how different foods affect the human body and its physical and cellular processes.

AFNR.HS.20.8.b Identify food safety and sanitation procedures for handling and processing to as sure food quality.

AFNR.HS.20.8.c Summarize food safety procedures when storing and distributing products to consumption.

AFNR.HS.20.8.d Explain the producer-to-consumer processes in the food industry.

AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

AFNR.HS.20.9.a Define major sectors within the agribusiness industry.

AFNR.HS.20.9.b Identify standard production and agribusiness records and plans.

AFNR.HS.20.9.c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.

AFNR.HS.20.9.d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.

AFNR.HS.20.9.e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.10.a Identify and practice safe laboratory practices and procedures.

AFNR.HS.20.10.b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.

AFNR.HS.20.10.c Develop an agricultural project plan with the required project plan components (e.g., purpose, materials, budget, skills required, timeframe).

AFNR.HS.20.10.d Assess a project plan to completion.

ENVIRONMENTAL AND NATURAL RESOURCES

COURSE DESCRIPTION

This course provides opportunities for students to increase awareness of the close ties amongst living organisms as well as natural and environmental concerns with the interrelationships of living organisms and the world around us. Students are exposed to careers related to natural resources systems. Students also examine Nebraska's natural resources and management techniques. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.15.1 Identify scientifically-based solutions to the management of natural resources.

AFNR.HS.15.1.a	Describe the agriculture technology behind the management techniques (e.g., contour cropping) of Nebraska's natural resources.
AFNR.HS.15.1.b	Identify proper use of tools utilized in natural resource management (e.g., atmometer, soil pH).
AFNR.HS.15.1.c	Describe common species of wildlife found in Nebraska.
AFNR.HS.15.1.d	Classify common species of grasses, forbes, shrubs, and trees found in Nebraska ecosystems.
AFNR.HS.15.1.e	Describe the impact and importance of natural resources to the people of Nebraska.

AFNR.HS.15.2 Analyze the interrelationships between natural resources and humans in the foundation of modern agriculture.

AFNR.HS.15.2.a	Distinguish current production methods within a context of modern agriculture production.
AFNR.HS.15.2.b	Identify the current programs in place with a focus on the conservation and sustainability of natural resources (e.g., Wetlands Reserve Program, Conservation Stewardship Program, Conservation Reserve Program, Source Water Protection Program).
AFNR.HS.15.2.c	Describe the role of local, state, and national agencies/organizations in the management of our local resources.
AFNR.HS.15.2.d	Identity production methods that are best suited to specific environmental conditions.
AFNR.HS.15.2.e	Analyze use of modern technology in relation to agriculture production and natural resource management.

ENVIRONMENTAL AND NATURAL RESOURCES (cont.)

AFNR.HS.15.3 Summarize environmental aspects to be considered in ensuring sustainable production and processing of natural resources.

AFNR.HS.15.3.a Identify components that comprise ecosystems and the relationships within such ecosystems.

AFNR.HS.15.3.b Outline the methods used to measure air quality.

AFNR.HS.15.3.c Explain the water cycle (e.g., hydrologic) and its management.

AFNR.HS.15.3.d Describe the soil formation process, soil types, and how they affect land use.

AFNR.HS.15.3.e Determine the economic and environmental value of the forestry industry.

AFNR.HS.15.4 Evaluate responsible management procedures and techniques to protect, maintain, enhance, and improve natural resources.

AFNR.HS.15.4.a Identify current management policies that are put in place by the local, state, and national government.

AFNR.HS.15.4.b Compare and contrast alternative energy sources used within the agricultural industry.

AFNR.HS.15.4.c Identify non-native and invasive species in Nebraska.

AFNR.HS.15.4.d Calculate the financial and environmental cost of non-native species.

WILDLIFE MANAGEMENT

COURSE DESCRIPTION

This course provides students the opportunity to increase awareness of the principles of wildlife management and conservation. Students will closely examine ecological concepts, habitat management, wildlife species identification, and recreational opportunities that the environment and wildlife provide. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.30.1 Evaluate conservation and management techniques of natural resources and wildlife.

AFNR.HS.30.1.a Identify and classify common species of fauna found in Nebraska (e.g., tracks, pelts, scat, photos, other identifiers).

AFNR.HS.30.1.b Evaluate wildlife habitats to identify conservation and preservation practices for natural resources and approved practices in wildlife management.

AFNR.HS.30.1.c Analyze and interpret environmental and climate data to develop a management plan and determine proper methods of wildlife habitat improvement.

AFNR.HS.30.1.d Apply management techniques to increase wildlife populations, specifically involving those species native to Nebraska.

AFNR.HS.30.2 Analyze the human activities that influence the administration and management of natural resource management.

AFNR.HS.30.2.a Identify current state and national laws regarding private vs. public lands, hunting, fishing, wildlife, and fauna preservation.

AFNR.HS.30.2.b Summarize the impact of agriculture on natural resources through production practices, land characteristics, wildlife habitats, and ecosystems of Nebraska.

AFNR.HS.30.2.c Interpret current Nebraska laws and regulations while providing examples of mitigation techniques and policies for natural resources.

AFNR.HS.30.2.d Summarize the impact, dependence, and influence of natural resources management on humans and the environment.

WILDLIFE MANAGEMENT (cont.)

AFNR.HS.30.3 Summarize the components necessary to ensure sustainable production and processing of wildlife and natural resources.

AFNR.HS.30.3.a Identify the components that comprise an ecosystem.

AFNR.HS.30.3.b Identify the role of food chains in maintaining biodiversity within ecosystems.

AFNR.HS.30.3.c Summarize components of food webs and food chains found in ecosystems.

AFNR.HS.30.4.d Assess the impact of management techniques on Nebraska wildlife.

AFNR.HS.30.4 Describe responsible management procedures and techniques to protect, maintain, enhance, and improve natural resources.

AFNR.HS.30.4.a Identify non-native and invasive species to Nebraska ecosystems.

AFNR.HS.30.4.b Compare efforts to keep non-native species out of a local area.

AFNR.HS.30.4.c Calculate the financial cost of non-native species.

AFNR.HS.30.4.d Compare the benefits of conservation programs that enhance natural resources.

AFNR.HS.30.5 Analyze the impact of natural resources to the economy.

AFNR.HS.30.5.a Explain the impact and importance of natural resources to Nebraska agriculture.

AFNR.HS.30.5.b Compare and contrast the specifics of differing recreational activities related to the harvesting and managing of Nebraska natural resources.

AFNR.HS.30.5.c Compare the importance of wildlife to the local economies and recreational activities.

ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT

COURSE DESCRIPTION

This course provides an opportunity for students to increase awareness of the close ties amongst living organisms as well as natural and environmental concerns with the interrelationships of living organisms and the world around us. Students will closely examine agencies that regulate our natural resources, explore the relationship between agriculture and natural resources, and develop an understanding of sustainability and the importance of conservation. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.14.1 Analyze the relationships that have been established between humans and natural resources, specifically addressing sustainability of modern agriculture and governmental involvement of improvement methods.

AFNR.HS.14.1.a Compare and contrast renewable and nonrenewable resources in regards to their impact on water, soil, fish, wildlife, and forestry.

AFNR.HS.14.1.b Identify actions taken at local, state, and national levels to protect water quality, soil health, air quality, wildlife, and plant species.

AFNR.HS.14.1.c Assess historical events of the United States' conservation programs and the human population's attitude and ecological outlook on the nation's natural resources.

AFNR.HS.14.1.d Compare and contrast modern tools, equipment, machinery, and technology used to accomplish environmental tasks.

AFNR.HS.14.1.e Apply cartographic skills to determine area, boundaries, and elevations in relation to natural resources and modern agriculture.

ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT (cont.)

AFNR.HS.14.2 Analyze the interrelationships between natural resources and humans and their effect on social, scientific, and industrial uses of natural resources.

AFNR.HS.14.2.a Explain current aspects of modern agriculture and the impact to natural resources.

AFNR.HS.14.2.b Evaluate the current programs in place with conservation and sustainability of natural resources within Nebraska (e.g., Conservation Reserve Program, Environmental Quality Incentives Program, Depredation, Private Waters Programs, Small Watershed Rehabilitation Program, Conservation Innovation Grants).

AFNR.HS.14.2.c Assess the importance of Nebraska conservation and sustainability programs.

AFNR.HS.14.2.d Describe the implementation of conservation programs.

AFNR.HS.14.2.e Critique the effectiveness of production methods that are relevant to different environmental conditions, conservation, and sustainability of natural resources.

AFNR.HS.14.2.f Analyze the impact of modern technology in agriculture and natural resources and its overall effect on natural resources.

AFNR.HS.14.3 Explain factors that contribute to ensuring sustainable natural resources production of wind energy, water quality, soil health, and forestry/rangeland health.

AFNR.HS.14.3.a Identify components of ecological succession and the linkage between carbon, water, and hydrogen biological cycles.

AFNR.HS.14.3.b Describe the components of the earth's atmosphere and the importance of air quality in relation to global warming.

AFNR.HS.14.3.c Explain the allocation of water sources in relation to natural resource management.

AFNR.HS.14.3.d Explain components of soil formation, classification, and erosion to explain land use of Nebraska Farmland.

AFNR.HS.14.3.e Summarize fire management strategies, forestry products, and woodland management aspects of the forest industry.

ENVIRONMENTAL AND NATURAL RESOURCES MANAGEMENT (cont.)

AFNR.HS.14.4 Critique management procedures and techniques to protect, maintain, enhance, and improve natural resources.

AFNR.HS.14.4.a Analyze the effectiveness of specific environmental regulation policies (e.g., Clean Air Act, EISA, Clean Water Act, Superfund).

AFNR.HS.14.4.b Distinguish between alternative energy sources and determine the benefits/costs of such energy sources.

AFNR.HS.14.4.c Compare non-native and invasive species in Nebraska and their impact on the local and state-wide agricultural economy.

AFNR.HS.14.4.d Analyze the financial and environmental cost and issues related to the introduction of non-native species.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course will provide students with fundamental skills for success in agricultural careers and team environments. Students will investigate a variety of topics essential to career exploration and readiness in Agriculture, Food, and Natural Resources. In addition, students will develop skills in ethical leadership, communications, and teamwork. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs and activities.

STANDARDS AND INDICATORS:

AFNR.HS.10.1 Evaluate career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

AFNR.HS.10.1.a	Demonstrate personal responsibility in the workplace and community.
AFNR.HS.10.1.b	Demonstrate career readiness skills for career success.
AFNR.HS.10.1.c	Evaluate the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.10.1.d	Apply appropriate academic and technical skills to demonstrate career success.
AFNR.HS.10.1.e	Examine career opportunities that are matched to personal life skills and talents and career goals in an AFNR pathway of interest.

AFNR.HS.10.2 Develop employability skills for college and career readiness within AFNR.

AFNR.HS.10.2.a	Model personal responsibility and demonstrate safety in the workplace and community.
AFNR.HS.10.2.b	Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.
AFNR.HS.10.2.c	Apply reason and logic to evaluate workplace and community situations from multiple perspectives.
AFNR.HS.10.2.d	Investigate, prioritize, and select solutions to solve problems in the workplace community.
AFNR.HS.10.2.e	Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.10.2.f	Identify and demonstrate personal financial management and planning.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, AND CAREER READINESS WITH WORK-BASED LEARNING (cont.)

AFNR.HS.10.3 Model teamwork and leadership skills in work groups.

AFNR.HS.10.3.a Employ cooperative leadership skills to accomplish a team goal.

AFNR.HS.10.3.b Model proper management of teams and large groups.

AFNR.HS.10.3.c Contribute to team-oriented projects to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.10.4 Model integrity, ethical leadership, and effective management in AFNR career areas.

AFNR.HS.10.4.a Model characteristics of ethical and effective leaders in the workplace and community.

AFNR.HS.10.4.b Implement personal management skills to function effectively and efficiently in the workplace.

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AFNR.HS.10.5.a Demonstrate basic information research skills and techniques.

AFNR.HS.10.5.b Produce clear, reasoned, and coherently produced, verbal, or visual communication for formal or informal settings.

AFNR.HS.10.5.c Communicate using strategies that ensure clarity, logic, purpose, and professionalism in formal or informal settings.

AFNR.HS.10.5.d Utilize new technologies, tools, and applications to maximize productivity and minimize risk in the workplace and community.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basics of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE.
AFNR.HS.20.2.c	Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a	Inventory personal work preferences and interests related to the AFNR Career Field.
AFNR.HS.20.3.b	Identify careers available in multiple AFNR Career Pathways.
AFNR.HS.20.3.c	Determine common qualities of a specific career area (e.g., educational requirements, work environment).
AFNR.HS.20.3.d	Identify necessary steps to prepare for a specific AFNR careers (coursework, post-secondary, needed skills).
AFNR.HS.20.3.e	Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a	Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).
AFNR.HS.20.4.b	Summarize the components that comprise all ecosystems.
AFNR.HS.20.4.c	Compare and categorize biotic and abiotic factors in various habitats.
AFNR.HS.20.4.d	Identify the importance of water and air quality.
AFNR.HS.20.4.e	Identify the physical qualities of the soil that determine use for the environmental service system.
AFNR.HS.20.4.f	Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
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AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

AFNR.HS.20.8.a Evaluate how different foods affect the human body and its physical and cellular processes.

AFNR.HS.20.8.b Identify food safety and sanitation procedures for handling and processing to as sure food quality.

AFNR.HS.20.8.c Summarize food safety procedures when storing and distributing products to consumption.

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AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

AFNR.HS.20.9.a Define major sectors within the agribusiness industry.

AFNR.HS.20.9.b Identify standard production and agribusiness records and plans.

AFNR.HS.20.9.c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.

AFNR.HS.20.9.d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.

AFNR.HS.20.9.e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.10.a Identify and practice safe laboratory practices and procedures.

AFNR.HS.20.10.b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.

AFNR.HS.20.10.c Develop an agricultural project plan with the required project plan components (e.g. purpose, materials, budget, skills required, timeframe).

AFNR.HS.20.10.d Assess a project plan to completion.

FOOD SCIENCE AND SAFETY

COURSE DESCRIPTION

This course focuses on the importance of a safe, sanitary, and reliable food supply for human consumption, with a focus on food production and processing. Topics include an introduction to the food science industry and the identification of pathogenic foodborne illnesses and methods to prevent and control those illnesses. Students will explore food safety regulations and requirements in a variety of settings. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.18.1 Investigate trends within the Food Science industry.

- AFNR.HS.18.1.a Identify food science career professions.
- AFNR.HS.18.1.b Evaluate career opportunities matched to personal life skills, talents, career goals, and local industry trends within the food science industry.
- AFNR.HS.18.1.c Develop an educational plan to successfully pursue a career in the food science industry.
- AFNR.HS.18.1.d Compare and contrast food production companies and the products they produce.

AFNR.HS.18.2 Assess the basic principles of proper nutrition, including the identification and evaluation of the six essential nutrients needed for good health.

- AFNR.HS.18.2.a Classify nutrients as either macro or micro.
- AFNR.HS.18.2.b Identify the dietary roles of the six macronutrients.
- AFNR.HS.18.2.c Develop dietary plans based on nutritional needs.

AFNR.HS.18.3 Evaluate the chemistry of food.

- AFNR.HS.18.3.a Differentiate between simple and complex carbohydrates and their uses in food processing.
- AFNR.HS.18.3.b Describe the functions of amino acids and proteins in food processing.
- AFNR.HS.18.3.c Describe the uses of lipids in food processing.
- AFNR.HS.18.3.d Identify the role of water in food processing.

FOOD SCIENCE AND SAFETY (cont.)

AFNR.HS.18.4 Evaluate the implications of microorganisms in food products on food processing and storage.

- AFNR.HS.18.4.a Distinguish between beneficial and harmful microorganisms and their roles in the creation or spoilage of food products.
- AFNR.HS.18.4.b Identify the process of creating foods utilizing the fermentation process.
- AFNR.HS.18.4.c Analyze conditions and factors that affect the growth of microorganisms within processing and storage facilities.
- AFNR.HS.18.4.d Determine the differences between multicellular parasites, bacteria, yeasts, molds, and viruses.
- AFNR.HS.18.4.e Determine appropriate ways to control and prevent microbial growth in food products.
- AFNR.HS.18.4.f Investigate microorganisms that cause food-borne illness in humans and how to control or eliminate them.

AFNR.HS.18.5 Assess the physics of food production.

- AFNR.HS.18.5.a Describe the influence of water on food products.
- AFNR.HS.18.5.b Identify a food's viscosity/fluidity.
- AFNR.HS.18.5.c Classify foods based on their water activity.
- AFNR.HS.18.5.d Explain the difference between smoke point, flash point, and fire point when dealing with oils in processing foods.
- AFNR.HS.18.5.e Explain the science behind emulsions and their role in food processing.

AFNR.HS.18.6 Evaluate principles and applications of food safety and sanitation.

- AFNR.HS.18.6.a Identify steps in the proper implementation of Hazard Analysis and Critical Control Points (HACCP) and Preventative Controls for Human Food.
- AFNR.HS.18.6.b Differentiate between Sanitation Standard Operating Procedures (SSOPs) and Good Manufacturing Practices (GMPs) and identify the purposes of each.
- AFNR.HS.18.6.c Evaluate procedures and inspection standards for sanitation in the food processing industry.
- AFNR.HS.18.6.d Analyze state and federal laws and regulations governing food inspection standards.

FOOD PRODUCTS AND TECHNOLOGY

COURSE DESCRIPTION

This course is an in-depth study of the development of food products from a variety of agricultural industries. Students will study the nutritional value of foods along with applying scientific processes such as microbiology and chemistry to the development of food products and analyze and select appropriate storage, distribution, and consumption methods for foods. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.17.1 Apply principles of science to food processing to provide a safe, wholesome, and nutritious food supply for consumers.

- AFNR.HS.17.1.a Identify steps to design a research project in food science using the scientific method.
- AFNR.HS.17.1.b Explain how the chemical and physical properties of foods influence nutritional value and eating quality.
- AFNR.HS.17.1.c Compare and contrast the nutritive value of food and food groups.
- AFNR.HS.17.1.d Distinguish the common food constituents (e.g., proteins, carbohydrates, fats, vitamins, minerals, and water).
- AFNR.HS.17.1.e Compare and contrast food constituents and their relative value to consumers (e.g., product taste, appearance, nutrition).
- AFNR.HS.17.1.f Describe the purpose of common food additives.

AFNR.HS.17.2 Summarize harvesting, selection, and inspection techniques to obtain quality food products for processing.

- AFNR.HS.17.2.a Discuss factors that affect quality and yield grades of food products.
- AFNR.HS.17.2.b Summarize quality control inspections procedures for raw food products for processing.
- AFNR.HS.17.2.c Analyze accepted animal treatment and harvesting techniques.
- AFNR.HS.17.2.d Explain desirable and undesirable characteristics of both pre-mortem and post-mortem animals in relation to the production of food products.
- AFNR.HS.17.2.e Evaluate, grade, and classify food products.

FOOD PRODUCTS AND TECHNOLOGY (cont.)

AFNR.HS.17.3 Synthesize the steps in processing and preserving food and food products for sale and distribution.

AFNR.HS.17.3.a Analyze processing techniques to turn raw materials into consumer-ready products.

AFNR.HS.17.3.b Evaluate foods prepared for the fresh-food market based on factors such as shelf life, shrinkage, appearance, and weight.

AFNR.HS.17.3.c Identify steps in food preservation processing, using various methods and techniques.

AFNR.HS.17.3.d Evaluate ready-to-use food products.

AFNR.HS.17.3.e Analyze foods stored in varying conditions for quality, shelf life, and intended use.

AFNR.HS.17.4 Determine and apply steps in the process of preparing food and food products for sale and distribution.

AFNR.HS.17.4.a Identify the links between microbiology, chemistry, and physics in the development of a new food product.

AFNR.HS.17.4.b Explain the required components of a food label.

AFNR.HS.17.4.c Prepare and label foods according to the established standards of regulatory agencies.

AFNR.HS.17.4.d Formulate and package food products using weights and measures.

AFNR.HS.17.4.e Prepare appropriate labels for food products, including principle and information labels.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP AND CAREER READINESS WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course will provide students with fundamental skills for success in agricultural careers and team environments. Students will investigate a variety of topics essential to career exploration and readiness in Agriculture, Food, and Natural Resources. In addition, students will develop skills in ethical leadership, communications, and teamwork. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.10.1 Evaluate career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

AFNR.HS.10.1.a	Demonstrate personal responsibility in the workplace and community.
AFNR.HS.10.1.b	Demonstrate career readiness skills for career success.
AFNR.HS.10.1.c	Evaluate the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.10.1.d	Apply appropriate academic and technical skills to demonstrate career success.
AFNR.HS.10.1.e	Examine career opportunities that are matched to personal life skills and talents and career goals in an AFNR pathway of interest.

AFNR.HS.10.2 Develop employability skills for college and career readiness within AFNR.

AFNR.HS.10.2.a	Model personal responsibility and demonstrate safety in the workplace and community.
AFNR.HS.10.2.b	Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.
AFNR.HS.10.2.c	Apply reason and logic to evaluate workplace and community situations from | multiple perspectives.
AFNR.HS.10.2.d	Investigate, prioritize, and select solutions to solve problems in the workplace community.
AFNR.HS.10.2.e	Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.10.2.f	Identify and demonstrate personal financial management and planning.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP AND CAREER READINESS WITH WORK-BASED LEARNING (cont.)

AFNR.HS.10.3 Model teamwork and leadership skills in work groups.

AFNR.HS.10.3.a Employ cooperative leadership skills to accomplish a team goal.

AFNR.HS.10.3.b Model proper management of teams and large groups.

AFNR.HS.10.3.c Contribute to team-oriented projects to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.10.4 Model integrity, ethical leadership, and effective management in AFNR career areas.

AFNR.HS.10.4.a Model characteristics of ethical and effective leaders in the workplace and community.

AFNR.HS.10.4.b Implement personal management skills to function effectively and efficiently in the workplace.

AFNR.HS.10.4.c Demonstrate workplace characteristics that contribute to a positive morale and workplace environment.

AFNR.HS.10.4.d Demonstrate ethical decision-making in real-life situations in agriculture, food, and natural resources.

AFNR.HS.10.5 Communicate information relevant to agriculture clearly, effectively, and with reason.

AFNR.HS.10.5.a Demonstrate basic information research skills and techniques.

AFNR.HS.10.5.b Produce clear, reasoned, and coherently produced, verbal, or visual communication for formal or informal settings.

AFNR.HS.10.5.c Communicate using strategies that ensure clarity, logic, purpose, and professionalism in formal or informal settings.

AFNR.HS.10.5.d Utilize new technologies, tools, and applications to maximize productivity and minimize risk in the workplace and community.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basics of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE.
AFNR.HS.20.2.c	Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a Inventory personal work preferences and interests related to the AFNR Career Field.

AFNR.HS.20.3.b Identify careers available in multiple AFNR Career Pathways.

AFNR.HS.20.3.c Determine common qualities of a specific career area (e.g., educational requirements, work environment).

AFNR.HS.20.3.d Identify necessary steps to prepare for a specific AFNR careers (coursework, post-secondary, needed skills).

AFNR.HS.20.3.e Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).

AFNR.HS.20.4.b Summarize the components that comprise all ecosystems.

AFNR.HS.20.4.c Compare and categorize biotic and abiotic factors in various habitats.

AFNR.HS.20.4.d Identify the importance of water and air quality.

AFNR.HS.20.4.e Identify the physical qualities of the soil that determine use for the environmental service system.

AFNR.HS.20.4.f Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
AFNR.HS.20.5.c	Differentiate production animals from companion animals.
AFNR.HS.20.5.d	Classify the major components of production animal systems (e.g.,feedlots, cow-calf operations, farrow, finish) and regional distribution.
AFNR.HS.20.5.e	Categorize uses for and products generated from production animals.
AFNR.HS.20.5.f	Classify and determine uses for companion animals.

AFNR.HS.20.6 Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.

AFNR.HS.20.6.a	Classify major components of the plant industry.
AFNR.HS.20.6.b	Classify plants according to life cycles.
AFNR.HS.20.6.c	Identify the function of plant parts.
AFNR.HS.20.6.d	Identify basic processes and role of photosynthesis, respiration, and transpiration.
AFNR.HS.20.6.e	Differentiate between sexual and asexual propagation techniques.

AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

AFNR.HS.20.8.a Evaluate how different foods affect the human body and its physical and cellular processes.

AFNR.HS.20.8.b Identify food safety and sanitation procedures for handling and processing to as sure food quality.

AFNR.HS.20.8.c Summarize food safety procedures when storing and distributing products to consumption.

AFNR.HS.20.8.d Explain the producer-to-consumer processes in the food industry.

AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

AFNR.HS.20.9.a Define major sectors within the agribusiness industry.

AFNR.HS.20.9.b Identify standard production and agribusiness records and plans.

AFNR.HS.20.9.c Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.

AFNR.HS.20.9.d Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.

AFNR.HS.20.9.e Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.10.a Identify and practice safe laboratory practices and procedures.

AFNR.HS.20.10.b Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.

AFNR.HS.20.10.c Develop an agricultural project plan with the required project plan components (e.g. purpose, materials, budget, skills required, timeframe).

AFNR.HS.20.10.d Assess a project plan to completion.

PLANT SCIENCE

COURSE DESCRIPTION

This course examines the scientific concepts related to plant systems. Students will examine plant classification, anatomy, physiology, and asexual and sexual propagation. In addition, students will develop an understanding of plant nutrition and growth and production methods. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.25.1 Synthesize the principles of taxonomic systems to classify plants.

AFNR.HS.25.1.a	Classify plants according to the hierarchical classification system, life cycles, plant use, and as monocotyledons or dicotyledons.
AFNR.HS.25.1.b	Describe how classification is used globally in plant identification.
AFNR.HS.25.1.c	Demonstrate the hierarchical classification of an agronomic plant and an ornamental plant.
AFNR.HS.25.1.d	Describe the importance of scientific nomenclature when identifying plants and give an example of a scientific name in association with its common name.

AFNR.HS.25.2 Summarize principles of plant anatomy to plant production and management.

AFNR.HS.25.2.a	Compare and contrast morphological characteristics of different plant types (e.g., woody and herbaceous plants).
AFNR.HS.25.2.b	Identify role of seed and fruit structures in plant culture and use.
AFNR.HS.25.2.c	Compare the functions, types, and parts of plant roots and stems.
AFNR.HS.25.2.d	Identify and describe the morphological characteristics and functions of different types of leaves.
AFNR.HS.25.2.e	Identify role of flower structures to plant breeding, production, and use.
AFNR.HS.25.2.f	Describe the structures and functions of plant cells and cell organelles.

PLANT SCIENCE (cont.)

AFNR.HS.25.3 Evaluate knowledge of photosynthesis and respiration to make decisions on plant production and management.

AFNR.HS.25.3.a Identify the processes of photosynthesis and its significance to plant life.

AFNR.HS.25.3.b Summarize the stages of cellular respiration and the resulting products and byproducts.

AFNR.HS.25.3.c Explain the pathway of water and nutrients entering and within plants.

AFNR.HS.25.3.d Describe the role of plant structures in primary plant growth (e.g., apical meristem).

AFNR.HS.25.3.e Identify and categorize the five groups of naturally occurring plant hormones and synthetic growth regulators.

AFNR.HS.25.3.f Compare and contrast the effects of transpiration and translocation on plants within different plant species.

AFNR.HS.25.4 Analyze sexual and asexual plant propagation techniques to successfully grow and propagate plants.

AFNR.HS.25.4.a Determine the purpose of and types of reproduction methods within the production of specific plants.

AFNR.HS.25.4.b Contrast types of pollination and/or fertilization of flowering plants.

AFNR.HS.25.4.c Demonstrate various planting techniques for providing favorable conditions for seed germination.

AFNR.HS.25.4.d Summarize optimal conditions for asexual propagation and demonstrate different techniques used to propagate plants.

AFNR.HS.25.4.e Describe environmental conditions and types of growing media conducive to optimal plant growth and development.

AFNR.HS.25.4.f Identify structures and technologies used for controlled atmosphere plant production.

PLANT SCIENCE (cont.)

AFNR.HS.25.5 Summarize management of plant development through the selection, planting, and growing of seeds and plants based on global demand, economic importance, and growing conditions.

AFNR.HS.25.5.a Summarize the benefits of preparing growing media prior to planting.

AFNR.HS.25.5.b Summarize the stages of plant growth and benefits of controlling plant growth.

AFNR.HS.25.5.c Summarize the uses of different growing methods for plant production (e.g., vertical farming, soil grown, container gardening, hydroponics, and aquaponics).

AFNR.HS.25.6 Summarize harvest, transporting, and storage of crops according to current industry standards.

AFNR.HS.25.6.a Identify harvesting methods and equipment, incorporating safety measures.

AFNR.HS.25.6.b Identify plant preparation methods for storing and shipping plants and plant products.

AFNR.HS.25.6.c Assess the stage of growth to determine crop maturity or marketability and demonstrate proper harvesting techniques.

CROP MANAGEMENT & AGRONOMY

COURSE DESCRIPTION

This course investigates advanced crop management production and management topics. Students develop an understanding of nutrition and fertilization methods, resource management, pest management, technology use, marketing, and sustainable systems. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.12.1 Summarize principles of taxonomic systems to classify plants.

AFNR.HS.12.1.a	Compare, contrast, and classify plants in a variety of areas (e.g., taxonomy, life cycle, plant use, structure).
AFNR.HS.12.1.b	Describe how classification is used globally in plant identification.
AFNR.HS.12.1.c	Describe the importance of scientific nomenclature when identifying plants and give an example of a scientific name in association with its common name.

AFNR.HS.12.2 Evaluate soil nutrients and soil management for healthy plant growth.

AFNR.HS.12.2.a	Identify the essential nutrients and their functions necessary for plant growth and development.
AFNR.HS.12.2.b	Analyze the effects and recognize environmental causes of nutrient deficiencies and toxicities.
AFNR.HS.12.2.c	Describe the influence of pH on the availability of nutrients in plant health.
AFNR.HS.12.2.d	Identify fertilizer sources of essential nutrients; explain and calculate fertilizer formulations and describe different methods of fertilizer application.
AFNR.HS.12.2.e	Summarize production methods focused on soil management (e.g., crop rotation, companion planting, cover crops).
AFNR.HS.12.2.f	Summarize the impact of environmental factors on nutrient availability.

CROP MANAGEMENT& AGRONOMY (cont.)

AFNR.HS.12.3 Develop pest control measures to minimize the impact on agronomic and horticultural crops.

AFNR.HS.12.3.a Identify and categorize abiotic and biotic plant pests, diseases, and disorders.

AFNR.HS.12.3.b Identify and assess local major weeds, insect pests, and infectious and noninfectious plant diseases.

AFNR.HS.12.3.c Examine the life cycle of major plant pests and diseases.

AFNR.HS.12.3.d Predict pest and disease problems based on environmental conditions and life cycles.

AFNR.HS.12.3.e Identify and summarize pest control strategies associated with integrated pest management and the importance of determining economic threshold.

AFNR.HS.12.3.f Distinguish between risks and benefits associated with the materials and methods used in plant pest management.

AFNR.HS.12.4 Summarize concepts of plant development through the selection, planting, and growing of seeds and plants, based on global demand, economic importance, and growing conditions.

AFNR.HS.12.4.a Summarize the purity of plant production material (virus index, invasive species, seed banks).

AFNR.HS.12.4.b Analyze how mechanical planting equipment performs soil preparation and seed placement.

AFNR.HS.12.4.c Determine desired seeding rate and/or numbers of vegetative materials needed for specified plant population or desired quantity of finished plants.

AFNR.HS.12.4.d Observe environmental conditions during the germination, growth, and development of a crop.

AFNR.HS.12.4.e Demonstrate proper techniques to control and manage plant growth through mechanical, cultural, or chemical means.

AFNR.HS.12.4.f Compare and contrast the technologies used in plant production.

CROP MANAGEMENT & AGRONOMY (cont.)

AFNR.HS.12.5 Summarize the processes in harvesting, transporting, and storing crops according to current industry standards.

AFNR.HS.12.5.a Identify and analyze processes used by mechanical harvesting methods, including ensuring safety measures.

AFNR.HS.12.5.b Evaluate crop yield and loss data and make recommendations to reduce crop loss.

AFNR.HS.12.5.c Demonstrate techniques for grading, handling. and packaging plants and plant products for distribution.

AFNR.HS.12.5.d Analyze practices used to maintain a safe product through harvest, processing, storage, and shipment (e.g., Food Safety Modernization Act, Good Agricultural Practices).

AFNR.HS.12.6 Evaluate principles and practices of sustainable cropping systems to plant production to recommend the ideal system for their local community.

AFNR.HS.12.6.a Identify the current topics in crop production and the role those topics play in management and production of agronomic crops.

AFNR.HS.12.6.b Assess the importance of long-term impacts on sustainable agriculture systems in relation to global food security.

AFNR.HS.12.6.c Analyze the alignment of modern technologies used in production systems (e.g., precision agriculture, gene editing technologies).

AFNR.HS.12.6.d Describe sustainable agricultural practices and how they relate to conventional agricultural practices.

AFNR.HS.12.6.e Compare and contrast differing research conclusions related to environmental factors on sustainable systems.

NURSERY MANAGEMENT

COURSE DESCRIPTION

This course examines the knowledge and skills needed to identify, produce, and manage horticultural plants. Topics include plant identification and production, nursery management, and development of schedules and estimates. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.24.1 Synthesize the principles of taxonomic systems to classify plants.

AFNR.HS.24.1.a	Classify plants in a variety of areas (e.g., taxonomy, life cycle, plant use, structure).
AFNR.HS.24.1.b	Describe how classification is used globally in plant identification.
AFNR.HS.24.1.c	Identify landscape plants, using cultivars or varieties in a scientific name and the corresponding common name.
AFNR.HS.24.1.d	Categorize plants by their purpose (e.g., floral plants, landscape plants, house plants).

AFNR.HS.24.2 Apply methods of plant propagation for plant reproduction.

AFNR.HS.24.2.a	Demonstrate sowing techniques and provide favorable conditions for seed germination.
AFNR.HS.24.2.b	Explain the methods of asexual propagation and identify which species and varieties are best suited to each method.
AFNR.HS.24.2.c	Develop a schedule for propagation to meet seasonal production demands.

NURSERY MANAGEMENT (cont.)

AFNR.HS.24.3 Explain the influence of environmental factors, nutrients, and soil on plant growth through the plant management plans.

AFNR.HS.24.3.a Identify environmental factors involved in ornamental plant production including soils, water, pests, and human actions.

AFNR.HS.24.3.b Describe the desired characteristics of an ideal growing medium.

AFNR.HS.24.3.c Explain the techniques of soil sampling and relate this process to testing the growing medium and interpreting the results to recommend fertilizer applications and pH treatment.

AFNR.HS.24.3.d Evaluate how heat, humidity, and light affect the heating, cooling, and ventilation systems of a greenhouse.

AFNR.HS.24.3.e Develop a water management plan for field production, nursery, or a controlled environment.

AFNR.HS.24.3.f Analyze the deficiency symptoms of the major plant nutrients and investigate the economic impacts of those deficiencies.

AFNR.HS.24.4 Differentiate between field production, nursery, and greenhouse or controlled environment production and the plants produced in each.

AFNR.HS.24.4.a Describe in the correct order the steps utilized in integrated pest management (IPM) in relation to horticultural crops and landscapes.

AFNR.HS.24.4.b Identify common plant pests (insects and diseases) for horticultural crops and describe the damage inflicted to the plants.

AFNR.HS.24.4.c Explain the types of pest control methods and classification of herbicides and discuss the appropriate uses and safety measures for each type.

AFNR.HS.24.4.d Determine best management practices (BMP) for soil amendments, fertilizers, and pesticides.

AFNR.HS.24.4.e Plan for common greenhouse and nursery production materials needed based on spacing and crop requirements.

AFNR.HS.24.4.f Compare and contrast the different types of technologies and equipment used for production.

NURSERY MANAGEMENT (cont.)

AFNR.HS.24.5 Analyze how nursery plants are grown and managed.

AFNR.HS.24.5.a	Identify the various types of root production methods and compare the quality of the resulting plants.
AFNR.HS.24.5.b	Describe the differences between bare root, containerized, balled, and burlapped plants.
AFNR.HS.24.5.c	Use ANSI Standards to evaluate whether plants in various categories (evergreen, shrub) meet the standard.
AFNR.HS.24.5.d	Describe how the timing of transplanting affects plant quality.
AFNR.HS.24.5.e	Analyze production and delivery schedules for specific plant types and the associated labor required.
AFNR.HS.24.4.f	Interpret the reasons, methods, and timing for pruning woody and herbaceous plants for optimal plant growth.

LANDSCAPE DESIGN

COURSE DESCRIPTION

This course examines the knowledge and skills needed to identify, produce, and manage horticultural plants, understand and apply landscape design concepts, and manage turfgrass and landscape plants. Topics include plant identification, identifying and applying design principles, creating designs using scales and other hand-drawing tools and/or design software, and processes and products used in designing, constructing, and managing landscapes. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.21.1 Investigate the importance of plant identification in choosing and using landscape plants.

AFNR.HS.21.1.a	Identify the importance of scientific nomenclature when identifying and selecting landscape plants, using cultivars or varieties in a scientific name and the corresponding common name.
AFNR.HS.21.1.b	Identify plants by their purpose (e.g., floral plants, landscape plants, house plants).
AFNR.HS.21.1.c.	Distinguish between various types of turfgrasses and compare how they are used in different landscape situations.
AFNR.HS.21.1.d	Develop knowledge of landscape characteristics and environmental requirements for landscape plants.
AFNR.HS.21.1.e	Describe the differences between annual, perennial, woody and herbaceous plants and how they are used in landscape design.

LANDSCAPE DESIGN (cont.)

AFNR.HS.21.2 Summarize methods of propagation and production for landscape needs.

AFNR.HS.21.2.a	Explain the methods of asexual propagation and their importance in producing landscape plants.
AFNR.HS.21.2.b.	Identify which species and of landscape plant varieties are best propagated asexually.
AFNR.HS.21.2.c	Describe methods of producing turfgrass, including seed, asexual propagation, plugs, and sod.
AFNR.HS.21.2.d	Develop a schedule for propagation and production to meet seasonal landscape needs.
AFNR.HS.21.2.e	Describe how plants that do not meet ANSI Standards for Nursery Stock influence immediate and long-term landscape management processes.

AFNR.HS.21.3 Implement a landscape management plan that addresses the influence of environmental factors, nutrients, and soil on plant growth.

AFNR.HS.21.3.a	Summarize the environmental factors involved in managing landscapes including soils, water, pests and human actions.
AFNR.HS.21.3.b	Explain the techniques of soil sampling and relate this process to testing the soil and interpreting the results to recommend fertilizer applications and pH treatment.
AFNR.HS.21.3.c	Develop a water management plan for a landscape that includes turfgrass, woody, and herbaceous plants.
AFNR.HS.21.3.d	Analyze the deficiency symptoms of the major plant nutrients and investigate the economic impacts of those deficiencies.

LANDSCAPE DESIGN (cont.)

AFNR.HS.21.4 Develop a landscape plan to include hardscapes and plants.

AFNR.HS.21.4.a	Assess client needs to communicate effectively with clients throughout the design process.
AFNR.HS.21.4.b	Differentiate between design styles by interpreting the use of design principles (e.g., order, unity and rhythm) in a landscape plan.
AFNR.HS.21.4.c	Evaluate the use of design elements (e.g., scale, proportion, balance) in a landscape plan.
AFNR.HS.21.4.d	Analyze environmental conditions and human factors that will influence design decisions.
AFNR.HS.21.4.e	Determine if an irrigation system is needed and choose the appropriate type and components for optimal coverage.
AFNR.HS.21.4.f	Demonstrate how various plant types (e.g., conifers, deciduous shrubs) are combined as part of the landscape system for function, management, and aesthetics.
AFNR.HS.21.4.g	Determine plant materials and hardscape elements appropriate for the site and client, applying principles of sustainability.

AFNR.HS.21.5 Describe the seasonal differences for managing a landscape for a year.

AFNR.HS.21.5.a	Describe, in the correct order, the steps utilized in Integrated Pest Management (IPM).
AFNR.HS.21.5.b	Identify common plant pests (insects and diseases).
AFNR.HS.21.5.c	Describe the damage inflicted to the plants.
AFNR.HS.21.5.d	Explain the types of pest control methods and classification of herbicides and discuss the appropriate uses and safety measures for each type.
AFNR.HS.21.4.e	Compare situations where different soil amendments, fertilizers, and pesticides are used to determine best management practices (BMP).
AFNR.HS.21.4.f	Analyze how an irrigation plan provides optimal coverage for all plant types, including turfgrass.
AFNR.HS.21.4.g	Interpret the reasons, methods, and timing for pruning woody and herbaceous plants for optimal plant growth in landscapes.

LANDSCAPE DESIGN (cont.)

AFNR.HS.21.6 Recommend materials and methods appropriate for landscape needs.

AFNR.HS.21.6.a	Demonstrate knowledge of drawing tools and/or software to calculate area and volume with necessary conversions to figure accurate quantities of materials.
AFNR.HS.21.6.b	Use common calculations to compare prices for landscape plants and hardscape materials and their installation to recommend the most cost-effective approach.
AFNR.HS.21.6.c	Investigate equipment types and availability to recommend the appropriate equipment for installation and management.
AFNR.HS.21.6.d	Describe the process needed to construct and manage a landscape and create a cost analysis for the project.

FLORICULTURE

COURSE DESCRIPTION

This course will provide students with the necessary knowledge to apply design principles in the floral industry. Topics include history of the floral industry, processing techniques and tools, trends, and flower and foliage identification important in the design of quality floral arrangements. Classroom and laboratory activities are supplemented through supervised agricultural experiences, and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.16.1 Synthesize the history of floriculture.

AFNR.HS.16.1.a	Explain the evolution of floriculture throughout history and describe how history has influenced today's floriculture.
AFNR.HS.16.1.b	Compare and contrast the three levels of the floriculture industry (grower, wholesaler, and retailer).
AFNR.HS.16.1.c	Analyze today's world floral production and marketing methods and trends.

AFNR.HS.16.2 Summarize key aspects of floral botany and processing.

AFNR.HS.16.2.a	Identify male and female parts of the flower and their functions.
AFNR.HS.16.2.b	Evaluate the function of the plant stem and its post-harvest physiology.
AFNR.HS.16.2.c	Recognize the inflorescence types and leaf form and their purpose.
AFNR.HS.16.2.d	Distinguish the roles of plant processes as they relate to cut plant materials.
AFNR.HS.16.2.e	Identify harvesting techniques and procedures used to cut quality materials and design a procedure for proper processing and storage.

AFNR.HS.16.3 Summarize the proper function and use of floral materials and tools.

AFNR.HS.16.3.a	Identify the common tools used in various methods of floral arranging and demonstrate correct and safe use of floral tools.
AFNR.HS.16.3.b	Identify common wire and ribbon sizes for various applications.
AFNR.HS.16.3.c	Explain special considerations (occasion and season) for selection of proper materials (e.g., ribbon, containers).

FLORICULTURE (cont.)

AFNR.HS.16.4 Classify common floriculture plants.

AFNR.HS.16.4.a Identify the major plants used in the floriculture industry by common and scientific names.

AFNR.HS.16.4.b Categorize major plants based on their use in floriculture (cut flower and/or foliage plants, potted flowering and/or foliage plants).

AFNR.HS.16.4.c Differentiate the uses of plants in a design: line, form, filler, foliage.

AFNR.HS.16.5 Synthesize principles of floral design.

AFNR.HS.16.5.a Identify the importance of floral design principles (e.g., color, design, line, texture, balance, focal point).

AFNR.HS.16.5.b Evaluate an arrangement based on design principles.

AFNR.HS.16.5.c Analyze current design trends that exist in the floral industry.

AFNR.HS.16.5.d Create a floral arrangement using design principles and materials to meet a specific occasion and budget.

AFNR.HS.16.5.e Delineate between wholesale and retail pricing of raw materials.

AGRICULTURAL BIOTECHNOLOGY

COURSE DESCRIPTION

This course focuses on students examining the relationship between biotechnology and modern agriculture, food, and natural resource systems. Students identify purposes and methods of genetic modification of plants and animals and the impact of biotechnology on a global scale. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.2.1 Assess factors that have influenced the evolution of biotechnology in agriculture.

AFNR.HS.2.1.a Summarize the evolution of biotechnology in agriculture.

AFNR.HS.2.1.b Summarize current work in biotechnology and the added value to agriculture and society.

AFNR.HS.2.1.c Compare and contrast the benefits and risks of biotechnology and conventional approaches to improving agriculture.

AFNR.HS.2.2 Evaluate the scope and implications of bioethics, law, and public perceptions of biotechnology in agriculture.

AFNR.HS.2.2.a Compare and contrast global regulatory systems for biotechnology in agriculture.

AFNR.HS.2.2.b Summarize the emergence, evolution, and implications of bioethics associated with biotechnology in agriculture.

AFNR.HS.2.2.c Describe the significance and impacts of legal issues related to biotechnology in agriculture.

AFNR.HS.2.2.d Investigate the impact of public perceptions on the application of biotechnology in different agriculture, food and natural resources (AFNR) systems.

AGRICULTURAL BIOTECHNOLOGY (cont.)

AFNR.HS.2.3 Apply appropriate laboratory skills to complete tasks in a biotechnology research and development environment (e.g., standard operating procedures, record keeping, aseptic technique, equipment maintenance).

AFNR.HS.2.3.a Maintain and interpret records documented in a laboratory to ensure data accuracy and integrity (e.g., avoid bias, record any conflicts of interest, avoid misinterpreted results).

AFNR.HS.2.3.b Categorize and identify laboratory equipment according to its purpose in scientific research.

AFNR.HS.2.3.c Apply standard operating procedures for the safe handling, management, and disposal of biological and chemical materials in a laboratory according to standard operating procedures.

AFNR.HS.2.3.d Identify the steps necessary to perform simple genetic modification.

AFNR.HS.2.4 Apply concepts of biotechnology to solve problems in Agriculture, Food, and Natural Resources (AFNR) systems (e.g., bioengineering, food processing, waste management, horticulture, forestry, livestock, crops).

AFNR.HS.2.4.a Identify biotechnology principles, techniques, and processes to create transgenic species through genetic engineering.

AFNR.HS.2.4.b Explain biotechnology principles, techniques, and processes to enhance the production of food through the use of microorganisms and enzymes.

AFNR.HS.2.4.c Apply biotechnology principles, techniques, and processes to protect the environment and maximize use of natural resources (e.g., biomass, bioprospecting, industrial biotechnology).

AFNR.HS.2.4.d Apply biotechnology principles, techniques, and processes to enhance plant and animal care and production (e.g., selective breeding, pharmaceuticals, biodiversity).

AFNR.HS.2.4.e Apply biotechnology principles, techniques and processes to produce biofuels (e.g., fermentation, transesterification, methanogenesis).

AFNR.HS.2.4.f Apply biotechnology principles, techniques, and processes to improve waste management (e.g., genetically modified organisms, bioremediation).

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, CAREER READINESS WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course will provide students with fundamental skills for success in agricultural careers and team environments. Students will investigate a variety of topics essential to career exploration and readiness in Agriculture, Food, and Natural Resources. In addition, students will develop skills in ethical leadership, communications, and teamwork. Classroom and laboratory activities are supplemented through supervised agricultural experiences and FFA leadership programs & activities.

STANDARDS AND INDICATORS:

AFNR.HS.10.1 Evaluate career opportunities and means to achieve those opportunities in each of the AFNR career pathways.

AFNR.HS.10.1.a	Demonstrate personal responsibility in the workplace and community.
AFNR.HS.10.1.b	Demonstrate career readiness skills for career success.
AFNR.HS.10.1.c	Evaluate the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.10.1.d	Apply appropriate academic and technical skills to demonstrate career success.
AFNR.HS.10.1.e	Examine career opportunities that are matched to personal life skills and talents and career goals in an AFNR pathway of interest.

AFNR.HS.10.2 Develop employability skills for college and career readiness within AFNR.

AFNR.HS.10.2.a	Model personal responsibility and demonstrate safety in the workplace and community.
AFNR.HS.10.2.b	Synthesize information, knowledge, and experience to generate original ideas and challenge assumptions in the workplace and community.
AFNR.HS.10.2.c	Apply reason and logic to evaluate workplace and community situations from multiple perspectives.
AFNR.HS.10.2.d	Investigate, prioritize, and select solutions to solve problems in the workplace community.
AFNR.HS.10.2.e	Contribute to team-oriented projects and build consensus to accomplish results using cultural global competence in the workplace and community.
AFNR.HS.10.2.f	Identify and demonstrate personal financial management and planning.

AGRICULTURE, FOOD, NATURAL RESOURCES LEADERSHIP, CAREER READINESS WITH WORK-BASED LEARNING (cont.)

AFNR.HS.10.3 Model teamwork and leadership skills in work groups.

AFNR.HS.10.3.a Employ cooperative leadership skills to accomplish a team goal.

AFNR.HS.10.3.b Model proper management of teams and large groups.

AFNR.HS.10.3.c Contribute to team-oriented projects to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.10.4 Model integrity, ethical leadership, and effective management in AFNR career areas.

AFNR.HS.10.4.a Model characteristics of ethical and effective leaders in the workplace and community.

AFNR.HS.10.4.b Implement personal management skills to function effectively and efficiently in the workplace.

AFNR.HS.10.4.c Demonstrate workplace characteristics that contribute to a positive morale and workplace environment.

AFNR.HS.10.4.d Demonstrate ethical decision-making in real-life situations in agriculture, food, and natural resources.

AFNR.HS.10.5 Communicate information relevant to agriculture clearly, effectively, and with reason.

AFNR.HS.10.5.a Demonstrate basic information research skills and techniques.

AFNR.HS.10.5.b Produce clear, reasoned, and coherently produced, verbal, or visual communication for formal or informal settings.

AFNR.HS.10.5.c Communicate using strategies that ensure clarity, logic, purpose, and professionalism in formal or informal settings.

AFNR.HS.10.5.d Utilize new technologies, tools, and applications to maximize productivity and minimize risk in the workplace and community.

NEBRASKA CAREER AND TECHNICAL EDUCATION



CTE®
Learning that works for Nebraska

NEBRASKA DEPARTMENT OF EDUCATION

BUSINESS, MARKETING, AND MANAGEMENT

PROGRAM OF STUDY STANDARDS

HOSPITALITY & TOURISM

BUSINESS MANAGEMENT & ADMINISTRATION

MARKETING

FINANCE

NEBRASKA CAREER AND TECHNICAL EDUCATION STATE MODEL PROGRAMS OF STUDY

CAREER FIELD OVERVIEW

The Business, Marketing, and Management Career Field Area provides opportunities for students to deepen their understanding of topics in areas such as financial literacy, business technologies, communication, business and consumer law, entrepreneurship, accounting, economics, personal finance, financial services marketing, retailing, fashion marketing/merchandising, international marketing, sports and entertainment marketing, global business, and hospitality and tourism.

PROGRAMS OF STUDY

Programs of Study are the primary delivery model for Career and Technical Education (CTE) in Nebraska. They include a sequence of courses which progresses in specificity and rigor and are updated regularly to align with Nebraska's workforce needs and economic development priorities. This document includes the programs of study and course-based standards for the Business, Marketing, and Management career field. These state model programs of study were developed to:

- Assist secondary schools in creating meaningful sequences of courses that adequately prepare individuals for seamless transitions to postsecondary education and careers eliminating duplication of coursework;
- Assist students in identifying appropriate courses for high school and postsecondary education that lead to their chosen career;
- Encourage collaboration between secondary and postsecondary education through curricular alignment;
- Offer opportunities for high-quality workplace experiences aligned to students' career interests;
- Promote the advancement of early postsecondary opportunities (including dual-credit courses) for all students; and
- Support postsecondary education options for students to further prepare them for successful transitions to their future careers.

Nebraska's programs of study are organized around Nebraska's CTE Model, which provides a way for students to explore the diversity of career options available to them.

NEBRASKA CAREER AND TECHNICAL EDUCATION MODEL

1 CORE ACADEMICS AND CAREER READINESS

At the center of the NCE Model is the expectation for all students to develop a solid academic core. The next ring identifies specific career readiness standards and practices that prepare students for success in postsecondary education as well as entrepreneurship/employment.

2 CAREER FIELDS

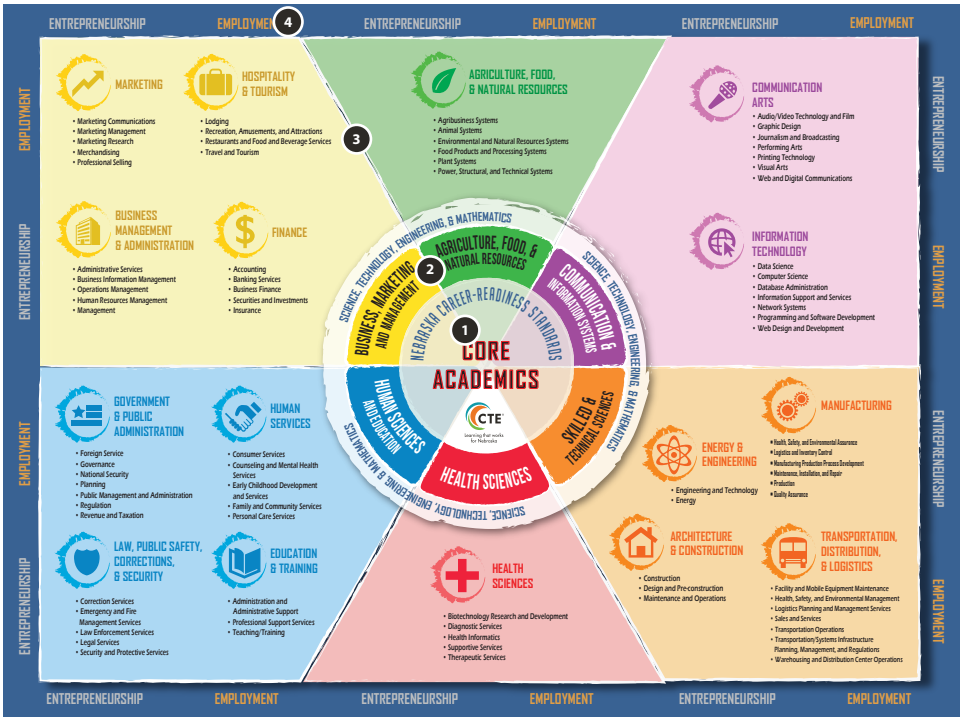
The six career fields represent broad sectors of the job market on which students may choose to focus.

3 CAREER CLUSTERS

Each career field is composed of career clusters radiating out from it. The clusters are more specific segments of the labor market. Each cluster is a grouping of careers that focus on similar subjects or similar skills. A basic understanding and exploration of each of the clusters will provide students with a solid foundation for career decision-making to conceptualize the entire world of work.

4 EMPLOYABILITY AND ENTREPRENEURSHIP

Career education provides the opportunity to gain the knowledge and skills for both employment and entrepreneurship. The reality for Nebraska and the United States is that entrepreneurship will help ensure economic growth and vitality. By infusing entrepreneurship competencies, career education is helping create the next generation of America's innovators and entrepreneurs.



The model is a visual map of "career fields" and "career clusters/pathways" and organizes the 16 National Career Clusters into six broad sectors of entrepreneurship and employment:

- Agriculture, Food and Natural Resources
- Business, Marketing and Management
- Communication and Information Systems
- Health Sciences
- Human Sciences and Education
- Skilled and Technical Sciences

These fields break down into more specific Career Clusters, Pathways and Occupational Specialties. The model provides a way for:

- Students to explore the diversity of career options available to them.
- Students to begin to prepare for their career with plans for secondary and post-secondary education.
- Schools to organize curriculum into Programs of Study that prepare students for opportunities in Nebraska's economy.

COURSE SEQUENCING

The courses within the State Model Program of Study are intended to be offered sequentially, to allow learners to build upon foundational knowledge and skills learned in introductory and intermediate courses and applied in more advanced capstone coursework. Non-duplicative sequences of courses ensure students transition to postsecondary education without duplication of classes and content. CTE enrollment data is collected at the course level. Students who participate and concentrate in CTE generally have more positive outcomes such as higher graduation rates along with postsecondary success.

Introductory Courses

Introductory courses set the foundation for a program of study by introducing students to broad foundational knowledge relative to an occupational area and career field.

Intermediate Courses

Intermediate courses build on the foundational knowledge of Introductory courses to further develop the academic, technical, and career readiness skills within a particular career field and occupational area.

Capstone Courses

Capstone courses are occupationally specific and further develop the necessary and required academic, technical, and career readiness skills needed for seamless transitions to postsecondary education and employment. Capstone courses often provide opportunities for students to earn postsecondary credit.

Levels of Participation

CTE Participant

A student who has earned one or more credits in any career and technical education program area.

CTE Concentrator

A secondary student who, in grades 9 through 12, has earned credit in at least two courses in a single career cluster program at the intermediate or capstone level.

State Model Programs of Study are coordinated, nonduplicative sequences of academic and technical content at the secondary and postsecondary levels that incorporate challenging State academic standards, address both academic and technical knowledge and skills, including Nebraska's Career Readiness Skills, are aligned with the needs of industries in Nebraska's economy, progress in specificity, have multiple entry and exit points that incorporate credentialing, and culminate in the attainment of a recognized postsecondary credential.

COURSE-BASED STANDARDS

Individual CTE courses, which make up the sequence of courses for Programs of Study, include content area standards and indicators to provide a framework for quality teaching and learning. While not required by state law, districts are encouraged to adopt these State Model Programs of Study and their related course-based standards. CTE State Model Programs of Study and course-based standards are revised on a five-year cycle to remain responsive to the rapid advances and needs of business and industry, help students explore a variety of postsecondary options and corresponding entrance requirements to help identify their next steps, and to align to changes in postsecondary programs.

Standards

At the highest level of generality, content area standards include a set of broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of students. They reflect long-term goals for learning.

Indicators

Under each standard are indicators, which further describe what a student must know and be able to do to meet the standard. Indicators are performance-based statements that provide educators with a clear understanding of the expected level of student learning and guidance. Indicators provide guidance for an assessment of student learning.

EXPANDED LEARNING OPPORTUNITIES

Expanded learning opportunities build on, support, and enhance learning within and outside of regular school programming. They are a critical component of Nebraska's educational landscape and should be intentionally supported to further develop students' college and career readiness. To signal aligned expanded learning opportunities, each Program of Study identifies additional areas where students may desire to personalize their program and take additional coursework or work-based learning that aligns with their interests. These expanded learning opportunities are not considered part of a Program of Study nor are they required, but rather a meaningful opportunity for students to continue to learn after completing the Program of Study sequence of courses within the context of their career interests. Along with aligned coursework, two prominent expanded learning opportunities include participating in Work-Based Learning or a Career and Technical Student Organization.

Work-Based Learning

Work-Based Learning (WBL) connects learners with employers to prepare them for success in an ever-changing workplace. WBL is a planned program of meaningful experiences related to the career interests of learners that enables them to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. WBL is learning through work, not simply learning about work. Expanding high-quality WBL opportunities for students is one of Nebraska's CTE strategic priorities and is a program quality accountability indicator. Nebraska CTE affirms WBL as a critical component of career development. Throughout the State Model Programs of Study, courses where WBL is embedded into the class is noted in the course title (e.g., "Business Management Work-Based Learning Experience"). It is also signaled as an expanded learning opportunity across all programs of study.

Career And Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are an extension of classroom instruction—applying classroom learning to real-world experiences. CTSOs provide opportunities for all students to develop career readiness skills through activities, competitions, and community service. Nebraska recognizes seven CTSOs aligned with the state's Programs of Study and career field areas. These include:



CAREER READINESS STANDARDS

Embedded into the State Model Programs of Study and courses are the Nebraska Career Readiness standards. These standards rest on important "practices and proficiencies" with long-standing importance in career education. These standards and related practices are not limited to formal CTE programs nor to the middle school or high school level. Rather, these standards and practices should be used over and over again with increasing complexity and relevance by students as they progress through their educational pathway. The standards themselves do not dictate curriculum, pedagogy or delivery of content. Schools and colleges may handle the teaching and assessing of these standards in many different ways.

THE CAREER READY INDIVIDUAL...



1. Applies appropriate academic and technical skills



2. Communicates effectively and appropriately



3. Contributes to employer and community success



4. Makes sense of problems and perseveres in solving them



5. Uses critical thinking



6. Demonstrates innovation and creativity



7. Models ethical leadership and effective management



8. Works productively in teams and demonstrates cultural competency



9. Utilizes technology



10. Manages personal career development



11. Attends to personal and financial well-being

BUSINESS MANAGEMENT
& ADMINISTRATION CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
ACCOUNTING **(Pages 11–28)**	032300 - Introduction to Business, OR 032400 - College Introduction to Business, OR 033000 - Personal Finance, OR 033002 - Wealth Building Fundamentals	030501 - Accounting 1, AND 030502 - Accounting 2	030503 - Accounting 3, AND 030504 - Accounting 4, OR 030302 - College Principles of Accounting	320705 - Business Management Work-Based Learning Experience
ENTREPRENEURSHIP **(Pages 29–39)**	032300 - Introduction to Business, OR 032400 - College Introduction to Business, OR 038100 - Marketing	030501 - Accounting 1, OR 038101 - Marketing Management	032370 - Entrepreneurship, OR 032600 - College Introduction to Entrepreneurship	320705 - Business Management Work-Based Learning Experience
MANAGEMENT **(Pages 40–49)**	032300 - Introduction to Business, OR 032400 - College Introduction to Business	038101 - Marketing Management, OR 030900 - Business Law	032802 - Management & Leadership	320705 - Business Management Work-Based Learning Experience

FINANCE CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
FINANCE **(Pages 50–63)**	032300 - Introduction to Business, OR 032400 - College Introduction to Business, OR 033000 - Personal Finance, OR 033002 - Wealth Building Fundamentals	030501 - Accounting 1	038501 - AP Microeconomics, OR 038503 - College Microeconomics, OR 038500 - AP Macroeconomics, OR 038502 - College Macroeconomics, OR 111700 - Statistics/ Probability, OR 031800 - Economics, OR 151000 - High School Economics	320708 - Finance Work-Based Learning Experience

MARKETING CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
MARKETING **(Pages 64–69)**	038100 - Marketing	038101 - Marketing Management	038200 - Advanced Marketing, OR 038201 - College Principles of Marketing	320716 - Marketing Work-Based Learning Experience

HOSPITALITY &
TOURISM CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
CULINARY ARTS & EVENT PLANNING **(Pages 70–81)**	090107 - Fundamentals of Nutrition & Culinary Essentials (HSE)	370021 - Culinary Skills 1, OR 370030 - ProStart 1	370022 - Culinary Skills 2, OR 370031 - ProStart 2, OR 370023 - Baking & Pastry, OR 038303 - Event Management with Work-Based Learning Experience	320711- Hospitality & Tourism Work-Based Learning Experience, OR 032370 - Entrepreneurship, OR 032600 - College Introduction to Entrepreneurship, OR
HOSPITALITY & EVENT PLANNING **(Pages 82–92)**	038301 - Introduction to Hospitality & Event Planning	038101- Marketing Management, OR 038302 - Travel & Tourism	032370 - Entrepreneurship, OR 038303 - Event Management with Work-Based Learning Experience	320711 - Hospitality & Tourism Work-Based Learning Experience

INTRODUCTION TO BUSINESS

COURSE DESCRIPTION

This course is designed to introduce students to the Business, Marketing, and Management Career Field, which focuses on formation and structure, economics, management, marketing, financial management, and operations. Career opportunities and technology will also be used and discussed.

STANDARDS AND INDICATORS:

BMM.HS.16.1 Analyze the formation and structure of a business.

- BMM.HS.16.1.a Explain the role of business in society.
- BMM.HS.16.1.b Explain types of business ownership.
- BMM.HS.16.1.c Describe the two basic types of business profit structures (i.e. profit and not for profit).
- BMM.HS.16.1.d Examine the opportunities and risks of entrepreneurship.

BMM.HS.16.2 Differentiate economic systems in order to recognize the environments in which businesses function.

- BMM.HS.16.2.a Compare and contrast economic goods and services.
- BMM.HS.16.2.b Analyze economic indicators and how they affect the business cycle.
- BMM.HS.16.2.c Explain the principles of supply and demand and pricing.
- BMM.HS.16.2.d Compare and contrast the basic features of economic systems.
- BMM.HS.16.2.e Identify factors that impact a business' profit and risk.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.3 Interpret business profitability, sustainability, and the necessary dependencies upon leadership, management, staff, and community.

BMM.HS.16.3.a Analyze the management functions within the business environment (e.g. planning, organizing, leading, controlling).

BMM.HS.16.3.b Differentiate between leading and managing.

BMM.HS.16.3.c Identify the structural and economic impact of human resource management within a business.

BMM.HS.16.3.d Evaluate how organizational culture impacts business and retaining quality employees.

BMM.HS.16.3.e Identify and apply the use of software, tools, and techniques that impact business productivity.

BMM.HS.16.3.f Assess the ethical dilemmas that arise between business decisions and social responsibility.

BMM.HS.16.4 Identify the fundamental strategies of marketing and its role within an organization.

BMM.HS.16.4.a Describe marketing and its relevance in a global economy.

BMM.HS.16.4.b Analyze and explain the elements of the marketing mix and their impact on business.

BMM.HS.16.5 Demonstrate finance management and decision making through the use of accounting principles in business.

BMM.HS.16.5.a Explain and provide examples of accounting concepts and financial records used by businesses.

BMM.HS.16.5.b Explain the role of finance in business and how it affects decision-making.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.6 Evaluate and describe the functions of business operations.

BMM.HS.16.6.a Identify and analyze the key business processes and functions needed to bring products and services to market.

BMM.HS.16.6.b Explain the business implications of proprietary information, technology, and forms of security on profitability and sustainability.

BMM.HS.16.7 Evaluate and explore careers in the areas of business, marketing, and management.

BMM.HS.16.7.a Identify careers and organizations within a business career field.

BMM.HS.16.7.b Compare and contrast personal interests, aptitudes, information, and skills necessary for each career pathway.

BMM.HS.16.7.c Research and discuss specific verbal and nonverbal techniques for effective business communication to include cultural respect and meaning.

BMM.HS.16.7.d Conduct a job market search and devise a career plan that reflects business career interests, pathways, and postsecondary options.

PERSONAL FINANCE

COURSE DESCRIPTION

The goal of Personal Finance is to help students become financially responsible, conscientious members of society. To reach that end, this course develops student understanding and decision-making skills in such areas as income, money management, budgeting, financial goal attainment, the wise use of credit, insurance, and investments.

STANDARDS AND INDICATORS:

BMM.HS.22.1 Develop and evaluate a plan to earn an income and manage finances to achieve personal goals.

BMM.HS.22.1.a Identify various forms of income and analyze the career clusters to explore how career choice, level of education, geographical location, type of industry, skill level, and work ethic affect income and personal goal attainment.

BMM.HS.22.1.b Analyze the impact of sociological, economic, and technological changes on the future job outlook and potential to earn income.

BMM.HS.22.1.c Interpret a pay stub to calculate gross and net pay.

BMM.HS.22.1.d Evaluate the impact of taxes on personal financial planning.

BMM.HS.22.1.e Describe information needed and required forms relevant to the completion of state and federal income tax forms (e.g., W-4, W-2, 1040).

BMM.HS.22.1.f Develop and evaluate a personal budget based on income, employee benefits and incentives, savings and investment goals, and retirement contributions and analyze the life cycle of net worth.

BMM.HS.22.2 Examine budgeting, savings, and investment strategies based on individual preferences and circumstances to achieve financial goals.

BMM.HS.22.2.a Compare and contrast saving and investing strategies that consider risk, return, and building wealth.

BMM.HS.22.2.b Determine factors that influence decisions to save.

BMM.HS.22.2.c Create short- and long-term financial goals for a personal budget.

PERSONAL FINANCE (cont.)

BMM.HS.22.2.d Analyze the power of compound interest and the importance of starting early in implementing a plan of saving.

BMM.HS.22.2.e Examine the concept of time, value of money, and rates of return that impact monetary decisions.

BMM.HS.22.2.f Investigate opportunities to participate in employer-sponsored retirement plans (e.g., IRA, 401K, Roth IRA).

BMM.HS.22.3 Compare and evaluate the products and services financial institutions provide.

BMM.HS.22.3.a Describe and explain the use of different forms of financial exchange (e.g., cash, credit, debit, electronic funds transfer, and other emerging payment forms, etc.) from a local, national, and global consumer perspective.

BMM.HS.22.3.b Explain legal and ethical responsibilities associated with financial exchanges.

BMM.HS.22.3.c Identify the structure and functions of the Federal Reserve System and how it facilitates the functions of money.

BMM.HS.22.3.d Distinguish between the various types of financial institutions and the basic products and services provided and evaluate each for related costs and fees.

BMM.HS.22.3.e Compare and contrast types of checking and savings accounts and the forms of financial exchange.

BMM.HS.22.3.f Analyze privacy and security issues associated with financial exchanges (e.g. cash transfers, electronic payments, mobile payments, online and traditional banking, etc.)

BMM.HS.22.4 Analyze factors that affect the choice of credit, the cost of credit, maintaining credit, and the legal aspects of using credit for personal goals

BMM.HS.22.4.a Identify the C's of creditworthiness (e.g., collateral, character, capacity, conditions).

BMM.HS.22.4.b Evaluate the opportunity cost for each financial decision involving credit (e.g., credit cards, auto loans, college loans).

BMM.HS.22.4.c Compare and contrast the various aspects of a decision to use credit (e.g., APR, grace period, incentive buying, methods of calculating interest, and fees).

PERSONAL FINANCE (cont.)

BMM.HS.22.4.d Research the rights and responsibilities of consumers according to credit legislation (e.g., truth-in-lending, fair credit reporting, equal credit opportunity, fair debt collection).

BMM.HS.22.4.e Explain the importance of credit ratings and credit scores and the effect on an individual's credit report, cost of credit, and future use of credit.

BMM.HS.22.4.f Investigate methods to resolve credit discrepancies and minimize the danger and ramifications of identity theft.

BMM.HS.22.5 Apply a decision-making model to maximize consumer satisfaction when buying goods and services.

BMM.HS.22.5.a Identify and use reliable consumer resources to collect information for making buying decisions about durable and nondurable goods.

BMM.HS.22.5.b Identify consumer rights laws and explain how they protect consumer rights.

BMM.HS.22.5.c Develop comparison shopping practices and apply them to purchasing decisions.

BMM.HS.22.5.d Compare the costs and benefits of purchasing, leasing, and renting (e.g., vehicle, tools, furniture, and housing).

BMM.HS.22.5.e Research the types and use of consumer assistance services and advocacy groups provided to address consumer rights and responsibilities (e.g., government, the Better Business Bureau, and manufacturers).

BMM.HS.22.5.f Describe the role of supply and demand on the availability and price of goods and services in the regional, national, and international marketplace.

BMM.HS.22.5.g Examine the impact of advertising and marketing on consumer demand and decision making in the regional, national, and international marketplace.

BMM.HS.22.6 Analyze choices available to consumers for protection against risk and financial loss.

BMM.HS.22.6.a Define and utilize the terms, concepts, and practices instrumental to varied forms of insurance (e.g. deductible, premium, peril, risk, etc.).

BMM.HS.22.6.b Compare risk management strategies (e.g., retention, avoidance, reduction, transfer).

PERSONAL FINANCE (cont.)

BMM.HS.22.6.c	Explain how one's mindset, habits, behaviors, and choices affect the cost of insurance and identify ways consumers can reduce this cost (e.g. smokers are charged more for health insurance and quitting smoking could reduce that cost).
BMM.HS.22.6.d	Compare and contrast types of insurance associated with different risks (e.g., auto mobile, personal and professional liability, home, renters, health, life, long-term care, disability).
BMM.HS.22.6.e	Develop a plan for insurance coverage taking into account coverage, premium costs, willingness to take risks, income, age, and socioeconomic status.
BMM.HS.22.6.f	Explain how retirement planning and estate planning are risk-management strategies.

BMM.HS.22.7 Analyze choices and resources available for financing postsecondary education.

BMM.HS.22.7.a	Describe the multiple pathways to postsecondary education and career preparedness and analyze the costs and benefits associated with each choice.
BMM.HS.22.7.b	Identify the purpose of the Free Application for Federal Student Aid (FAFSA) to determine eligibility for grants, scholarships, and loans and the essential information.
BMM.HS.22.7.c	Evaluate the costs and benefits of postsecondary education funding and any repayment requirements (e.g. NEST 529 college saving plan, scholarships, grants, federal and private loans, work-study, etc.).
BMM.HS.22.7.d	Explore the options for borrowers struggling to make payments and the consequences of failure to repay student loans.
BMM.HS.22.7.e	Correlate salary potential to the education requirements of different careers by identifying strategies to reduce student loan debt.

WEALTH BUILDING FUNDAMENTALS

COURSE DESCRIPTION

This course is designed to provide knowledge of personal financial management. Students learn to manage their resources to make sound personal financial decisions, interpret data to develop short- and long-term budgetary plans, and develop product knowledge related to financial planning. Students will develop a financial plan that includes savings, investing, credit management, risk management, and retirement.

STANDARDS AND INDICATORS:

BMM.HS.24.1 Identify and develop essential financial and personal attributes that contribute to a successful income-producing career.

BMM.HS.24.1.a Distinguish between various forms of income and explain how it can be obtained and accumulated.

BMM.HS.24.1.b Connect factors that affect income as part of the career decision-making process and potential outcomes.

BMM.HS.24.2 Compare strategies used to maintain, monitor, control, and accurately plan the use of financial resources.

BMM.HS.24.2.a Prioritize financial needs and goals to determine strategic financial strategy decisions.

BMM.HS.24.2.b Create a plan for financial management based upon personal goals.

BMM.HS.24.3 Evaluate strategies used to establish, build, maintain, monitor, control, and use credit for personal and financial goals.

BMM.HS.24.3.a Estimate and evaluate the opportunity cost for each financial decision involving credit.

BMM.HS.24.3.b Identify applicable strategies to establish and maintain a good credit rating for beneficial credit use at all stages of life and financial capacity.

BMM.HS.24.3.c Summarize the loan application process and explain how each part is used to determine the creditworthiness of the applicant.

BMM.HS.24.3.d Evaluate credit laws and regulations.

WEALTH BUILDING FUNDAMENTALS (cont.)

BMM.HS.24.4 Apply a decision-making model to maximize consumer satisfaction when buying goods and services.

BMM.HS.24.4.a Distinguish between income and wealth.

BMM.HS.24.4.b Evaluate the need for saving and investing to ensure financial well-being and wealth building.

BMM.HS.24.4.c Evaluate saving and investment options and criteria.

BMM.HS.24.5 Compare and contrast the economic advantages and disadvantages of real estate as an investment tool.

BMM.HS.24.5.a Identify the advantages and disadvantages of buying versus renting a home.

BMM.HS.24.5.b Identify potential barriers to purchasing real estate and describe how to mitigate or avoid them.

BMM.HS.24.5.c Explain the risks and rewards of investing in income-producing real estate (e.g., residential, agricultural, commercial).

BMM.HS.24.6 Assess risks in life and how to protect against the consequences of risk.

BMM.HS.24.6.a Identify common types of risks and basic risk management strategies.

BMM.HS.24.6.b Evaluate insurance as a risk management strategy.

BMM.HS.24.7 Investigate appropriate technology solutions to interpret, analyze, and utilize emerging trends in business finance

BMM.HS.24.7.a Apply technology or software tools as they relate to financial activities.

BMM.HS.24.7.b Understand the use of information technology in business and industry.

BMM.HS.24.7.c Analyze financial data to make decisions.

BMM.HS.24.7.d Predict potential barriers to the availability of financial technology and how to overcome them.

ACCOUNTING 1

COURSE DESCRIPTION

This one-semester course covers a service business organized as a sole proprietorship which will include accounting principles involved in the preparation and maintenance of financial records concerned with business management and operations. It is a comprehensive introduction to basic accounting including recording, summarizing, and reporting and accounting systems and controls. Students are exposed to careers in the accounting field and are given the opportunity to perform accounting applications using technology.

STANDARDS AND INDICATORS:

BMM.HS.1.1 Explain the purpose of and demonstrate the steps of the accounting cycle using generally accepted accounting principles (GAAP).

BMM.HS.1.1.a	Define accounting and related concepts to explain the purpose of the accounting system and its relationship to business.
BMM.HS.1.1.b	Analyze business transactions using a journal and describe the effect on the accounting equation.
BMM.HS.1.1.c	Apply the concepts of debits and credits through the use of T-accounts, normal account balances, and the chart of accounts.
BMM.HS.1.1.d	Evaluate changes in a fiscal period using financial statements and worksheets.
BMM.HS.1.1.e	Analyze and record transactions including adjusting, closing, and correcting entries.
BMM.HS.1.1.f	Post to the ledger and compare the relationship between journals, ledgers, and financial statements.

BMM.HS.1.2 Demonstrate the importance of cash control procedures and ethics in business.

BMM.HS.1.2.a	Define and apply cash control procedures by using documents to verify balances.
BMM.HS.1.2.b	Apply appropriate techniques to account for investments and withdrawals by owners.
BMM.HS.1.2.c	Explain a need for a code of ethics in accounting and the ethical responsibilities required of accountants.
BMM.HS.1.2.d	Demonstrate ethical decision-making skills through business scenarios.

ACCOUNTING 1 (cont.)

BMM.HS.1.3 Prepare, interpret, and analyze financial statements for a sole proprietorship.

BMM.HS.1.3.a Evaluate the impact of data used in the development of financial statements.

BMM.HS.1.3.b Prepare an income statement and balance sheet.

BMM.HS.1.3.c Assess financial statements to summarize business performance.

BMM.HS.1.4 Investigate career opportunities, career readiness skills, and technology in the field of accounting.

BMM.HS.1.4.a Research the educational requirements, certifications, and skills needed to be successful in an accounting-related career.

BMM.HS.1.4.b Describe various careers and opportunities related to accounting.

BMM.HS.1.4.c Demonstrate both verbal and nonverbal communication skills related to the workplace.

BMM.HS.1.4.d Apply analytical, critical thinking, and leadership skills to the workplace.

BMM.HS.1.4.e Demonstrate the ability to work as a team by setting goals and accomplishing individual and team tasks on time.

BMM.HS.1.4.f Understand the use of information technology in the accounting industry

ACCOUNTING 2

COURSE DESCRIPTION

This one-semester course will develop accounting skills that build upon those acquired in Accounting I. Students will continue to apply concepts of double-entry accounting systems related to a merchandising business organized as a corporation. Additional accounting skills will be developed, including preparing and journalizing payroll records, calculating, recording, and adjusting entries, and interpreting financial information. Students are given the opportunity to explore career-related skills and perform accounting applications using technology. Accounting 1 is a prerequisite to this course.

STANDARDS AND INDICATORS:

BMM.HS.2.1 Explain the purpose and demonstrate the steps of the accounting cycle for a corporation using generally accepted accounting principles (GAAP)

BMM.HS.2.1.a	Define accounting and related concepts to explain the purpose of the accounting system and its relationship to business.
BMM.HS.2.1.b	Analyze business transactions using special journals and describe the effect on the accounting equation.
BMM.HS.2.1.c	Prepare a worksheet and financial statements to evaluate changes in a fiscal period.
BMM.HS.2.1.d	Analyze and record transactions including adjusting, closing, and correcting entries.
BMM.HS.2.1.e	Prepare posts to the ledger and compare the relationship between journals, ledgers, and financial statements.
BMM.HS.2.1.f	Compare the different forms of business ownership and the advantages and disadvantages of each form.

BMM.HS.2.2 Prepare and maintain payroll records and business-tax-related records.

BMM.HS.2.2.a	Prepare and maintain payroll records and tax forms.
BMM.HS.2.2.b	Calculate various forms of earning (e.g., hourly, salary, commission).
BMM.HS.2.2.c	Calculate employee and employer tax deductions (e.g., Social Security, Medicare, state income tax, federal income tax, unemployment).
BMM.HS.2.2.d	Differentiate between taxation at the personal and business levels.

ACCOUNTING 2 (cont.)

BMM.HS.2.3 Prepare, interpret, and analyze financial statements for a corporation.

BMM.HS.2.3.a	Prepare an income statement, statement of stockholders' equity, and balance sheet.
BMM.HS.2.3.b	Prepare and understand specialized financial statements for controlling and subsidiary accounts.
BMM.HS.2.3.c	Analyze the effect of the capital stock, retained earnings, and dividend accounts for a corporation.
BMM.HS.2.3.d	Evaluate the impact of data and assess financial statements including ratios to summarize business performance.

BMM.HS.2.4 Demonstrate the skills and competencies needed to be successful and ethical in an accounting-related career.

BMM.HS.2.4.a	Demonstrate both verbal and nonverbal communication skills related to the workplace.
BMM.HS.2.4.b	Apply analytical, critical thinking, and leadership skills to the workplace.
BMM.HS.2.4.c	Demonstrate the ability to work in a team by setting goals and accomplishing individual and team tasks on time.
BMM.HS.2.4.d	Explain a need for a code of ethics in accounting and the ethical responsibilities required of accountants.
BMM.HS.2.4.e	Demonstrate ethical decision-making skills through business scenarios.
BMM.HS.2.4.f	Understand the use of information technology in the accounting industry.

ACCOUNTING 3

COURSE DESCRIPTION

This is a one-semester course that includes accounting for a merchandising business, adjustments in inventory control systems, and other general accounting adjustments. Accounting 1 and Accounting 2 are prerequisites to this course.

STANDARDS AND INDICATORS:

BMM.HS.3.1 Explain the purpose of and demonstrate the steps of the accounting cycle of a merchandising business using generally accepted accounting principles (GAAP). This may be completed with a departmentalized business.

- BMM.HS.3.1.a Define and identify accounting terms, concepts, and practices related to financial reporting for a merchandising business.
- BMM.HS.3.1.b Demonstrate journaling and post business transactions related to cash receipts, cash payments, sales, and purchases.
- BMM.HS.3.1.c Calculate and record employee and employer payroll taxes.
- BMM.HS.3.1.d Prepare and analyze financial statements for a merchandising business.
- BMM.HS.3.1.e Complete end-of-period work for a merchandising business.
- BMM.HS.3.1.f Perform ratio analysis of financial statements.

BMM.HS.3.2 Apply accounting principles to plan, count, and cost inventory.

- BMM.HS.3.2.a Describe the differences between the periodic and perpetual inventory systems and record business transactions using both methods.
- BMM.HS.3.2.b Define and calculate cost of goods sold and ending inventory using the LIFO, FIFO, and weighted average inventory costing methods.
- BMM.HS.3.2.c Calculate inventory turnover ratio.

ACCOUNTING 3(cont.)

BMM.HS.3.3 Plan, record, and apply general accounting adjustments.

BMM.HS.3.3.a	Define and identify accounting terms, concepts, and practices related to the adjusting entry process.
BMM.HS.3.3.b	Calculate and record adjustments for estimated uncollectible accounts using appropriate methods.
BMM.HS.3.3.c	Journalize the purchase and disposal of plant assets.
BMM.HS.3.3.d	Calculate and record depreciation using various methods.
BMM.HS.3.3.e	Demonstrate journaling transactions and adjustments for notes payable, prepaid expenses, and accrued expenses..
BMM.HS.3.3.f	Demonstrate journaling transactions and adjustments for notes receivable, unearned revenue, and accrued revenue.

BMM.HS.3.4 Explain and demonstrate the skills and competencies needed to be successful and ethical in an accounting-related career.

BMM.HS.3.4.a	Research various careers and opportunities related to accounting.
BMM.HS.3.4.b	Demonstrate both verbal and nonverbal communication skills related to the workplace.
BMM.HS.3.4.c	Apply analytical, critical thinking, and leadership skills to the workplace.
BMM.HS.3.4.d	Demonstrate the ability to work in a team by setting goals and accomplishing individual and team tasks on time.
BMM.HS.3.4.e	Demonstrate ethical decision-making skills through business scenarios.
BMM.HS.3.4.f	Assess the use of information technology in the accounting industry.

ACCOUNTING 4

COURSE DESCRIPTION

This is a one-semester course that evaluates financial planning and decision-making for corporate and managerial accounting and other types of business. Accounting 1, Accounting 2, and Accounting 3 are prerequisites to this course.

STANDARDS AND INDICATORS:

BMM.HS.4.1 Apply accounting concepts and demonstrate the steps of the accounting cycle for a corporation using generally accepted accounting principles (GAAP).

BMM.HS.4.1.a	Define and identify accounting terms, concepts, and practices related to corporate accounting including acquiring additional capital and financial analysis.
BMM.HS.4.1.b	Interpret transactions related to a corporation and its stocks and dividends and how to journalize.
BMM.HS.4.1.c	Calculate and journalize transactions related to acquiring additional capital (e.g., stock, treasury stock, and bonds payable).
BMM.HS.4.1.d	Prepare, analyze, and interpret corporate financial statements.
BMM.HS.4.1.e	Complete end-of-period procedures for a corporation.
BMM.HS.4.1.f	Perform ratio analysis of financial statements.

BMM.HS.4.2 Apply management accounting concepts.

BMM.HS.4.2.a	Define and identify accounting terms, concepts, and practices related to budgetary planning and control, cost-volume-profit analysis, present-value analysis, and financial statement analysis.
BMM.HS.4.2.b	Prepare a budget, budgeted income statement, and performance report.
BMM.HS.4.2.c	Determine break-even point.
BMM.HS.4.2.d	Perform calculations related to cost-volume-profit and present-value analysis.
BMM.HS.4.2.e	Analyze the long-term financial strength of a business through ratio analysis of financial statements.

ACCOUNTING 4 (cont.)

BMM.HS.4.3 Identify accounting principles for other types of businesses.

BMM.HS.4.3.a	Define and identify accounting terms, concepts, and practices related to cost accounting and financial reporting for a manufacturing business.
BMM.HS.4.3.b	Define and identify accounting terms, concepts, and practices related to accounting for a partnership and not-for-profit organizations.
BMM.HS.4.3.c	Differentiate between the types, purposes, and characteristics of not-for-profit organizations (e.g., governmental, religious, charitable, educational).

BMM.HS.4.4 Assess the financial strength of a business.

BMM.HS.4.4.a	Define and identify accounting terms, concepts, and practices related to financial statements and analysis
BMM.HS.4.4.b	Explain how financial statements are used to analyze a business.
BMM.HS.4.4.c	Perform a horizontal and vertical analysis of financial statements.
BMM.HS.4.4.d	Compute the financial ratios to evaluate a business (e.g., profitability, liquidity, solvency, financial condition, and operating results).

BMM.HS.4.5 Apply accounting practices related to a statement of cash flows.

BMM.HS.4.5.a	Define and identify accounting terms, concepts, and practices related to a statement of cash flow.
BMM.HS.4.5.b	Distinguish among operating, investing, and financing cash flows..
BMM.HS.4.5.c	Differentiate between the indirect and direct method of the Statement of Cash Flows.
BMM.HS.4.5.d	Prepare the statement of cash flows by the indirect method.
BMM.HS.4.5.e	Use the cash flow to evaluate business performance.

ACCOUNTING 4 (cont.)

BMM.HS.4.6 Explain and demonstrate the career readiness skills and competencies needed to be successful and ethical in an accounting-related career

BMM.HS.4.6.a	Demonstrate both verbal and nonverbal communication skills related to the workplace.
BMM.HS.4.6.b	Apply analytical, critical thinking, and leadership skills to the workplace.
BMM.HS.4.6.c	Demonstrate the ability to work in a team by setting goals and accomplishing individual and team tasks on time.
BMM.HS.4.6.d	Demonstrate ethical decision-making skills through business scenarios.
BMM.HS.4.6.e	Understand the use of information technology in the accounting industry.

INTRODUCTION TO BUSINESS

COURSE DESCRIPTION

This course is designed to introduce students to the Business, Marketing, and Management Career Field, which focuses on formation and structure, economics, management, marketing, financial management, and operations. Career opportunities and technology will also be used and discussed.

STANDARDS AND INDICATORS:

BMM.HS.16.1 Analyze the formation and structure of a business.

BMM.HS.16.1.a	Explain the role of business in society.
BMM.HS.16.1.b	Explain types of business ownership.
BMM.HS.16.1.c	Describe the two basic types of business profit structures (i.e. profit and not for profit).
BMM.HS.16.1.d	Examine the opportunities and risks of entrepreneurship.

BMM.HS.16.2 Differentiate economic systems in order to recognize the environments in which businesses function.

BMM.HS.16.2.a	Compare and contrast economic goods and services.
BMM.HS.16.2.b	Analyze economic indicators and how they affect the business cycle.
BMM.HS.16.2.c	Explain the principles of supply and demand and pricing.
BMM.HS.16.2.d	Compare and contrast the basic features of economic systems.
BMM.HS.16.2.e	Identify factors that impact a business' profit and risk.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.3 Interpret business profitability, sustainability, and the necessary dependencies upon leadership, management, staff, and community.

BMM.HS.16.3.a Analyze the management functions within the business environment (e.g. planning, organizing, leading, controlling).

BMM.HS.16.3.b Differentiate between leading and managing.

BMM.HS.16.3.c Identify the structural and economic impact of human resource management within a business.

BMM.HS.16.3.d Evaluate how organizational culture impacts business and retaining quality employees.

BMM.HS.16.3.e Identify and apply the use of software, tools, and techniques that impact business productivity.

BMM.HS.16.3.f Assess the ethical dilemmas that arise between business decisions and social responsibility.

BMM.HS.16.4 Identify the fundamental strategies of marketing and its role within an organization.

BMM.HS.16.4.a Describe marketing and its relevance in a global economy.

BMM.HS.16.4.b Analyze and explain the elements of the marketing mix and their impact on business.

BMM.HS.16.5 Demonstrate finance management and decision making through the use of accounting principles in business.

BMM.HS.16.5.a Explain and provide examples of accounting concepts and financial records used by businesses.

BMM.HS.16.5.b Explain the role of finance in business and how it affects decision-making.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.6 Evaluate and describe the functions of business operations.

BMM.HS.16.6.a Identify and analyze the key business processes and functions needed to bring products and services to market.

BMM.HS.16.6.b Explain the business implications of proprietary information, technology, and forms of security on profitability and sustainability.

BMM.HS.16.7 Evaluate and explore careers in the areas of business, marketing, and management.

BMM.HS.16.7.a Identify careers and organizations within a business career field.

BMM.HS.16.7.b Compare and contrast personal interests, aptitudes, information, and skills necessary for each career pathway.

BMM.HS.16.7.c Research and discuss specific verbal and nonverbal techniques for effective business communication to include cultural respect and meaning.

BMM.HS.16.7.d Conduct a job market search and devise a career plan that reflects business career interests, pathways, and postsecondary options.

MARKETING

COURSE DESCRIPTION

This course develops basic student understanding and skills in the functions of marketing. Emphasis is placed on the impact of marketing activities on the individual, business, and society. Topics include market analysis, marketing information management, target customer identification, the development of marketing-mix strategies, and an in-depth look at the selling process.

STANDARDS AND INDICATORS:

BMM.HS.19.1 Recognize the customer-oriented nature of marketing and analyze the impact of marketing activities on the individual, business, and society.

- BMM.HS.19.1.a Describe marketing functions and related activities.
- BMM.HS.19.1.b Distinguish between economic goods and services.
- BMM.HS.19.1.c Explain the principles of supply and demand.
- BMM.HS.19.1.d Determine economic utilities created by business activities.
- BMM.HS.19.1.e Explain the concept of competition.
- BMM.HS.19.1.f Identify employment opportunities in marketing.

BMM.HS.19.2 Identify marketing-information management strategies to understand its nature and scope.

- BMM.HS.19.2.a Identify the need for marketing data used to monitor marketing decision making.
- BMM.HS.19.2.b Explain the role of ethics in marketing information management.
- BMM.HS.19.2.c Discuss the nature of data mining (NF:148) (CS)
- BMM.HS.19.2.d Describe the use of technology in the marketing-information management function (IM:183) (SP)
- BMM.HS.19.2.e Describe the regulation of marketing-information management (IM:419) (SP)

MARKETING (cont.)

BMM.HS.19.3 Apply the concepts and marketing strategies utilized to determine and target a select market.

- BMM.HS.19.3.a Analyze and describe the importance of each of the components of the marketing mix.
- BMM.HS.19.3.b Explain factors that influence customer/client/business buying behavior.
- BMM.HS.19.3.c Analyze customer's rational and emotional buying motives and decisions.
- BMM.HS.19.3.d Select target market appropriate for product/business to obtain the best return on marketing investment (ROMI).
- BMM.HS.19.3.e Explain the concept of market and market identification.
- BMM.HS.19.3.f Identify strategies utilized in the elements of market segmentation.

BMM.HS.19.4 Identify the concepts and actions needed to determine client needs and wants and respond through planned, personalized communication that influences purchase decisions and enhances future business opportunities.

- BMM.HS.19.4.a Explain the nature and scope of the selling function.
- BMM.HS.19.4.b Explain the role of customer service as a component of selling relationships for building a clientele.
- BMM.HS.19.4.c Utilize sales processes and techniques to determine and satisfy customer needs.
- BMM.HS.19.4.d Acquire product knowledge to communicate product benefits and to ensure appropriateness of product for the customer.
- BMM.HS.19.4.e Explain legal and ethical considerations in selling.

ACCOUNTING 1

COURSE DESCRIPTION

This one-semester course covers a service business organized as a sole proprietorship which will include accounting principles involved in the preparation and maintenance of financial records concerned with business management and operations. It is a comprehensive introduction to basic accounting including recording, summarizing, and reporting and accounting systems and controls. Students are exposed to careers in the accounting field and are given the opportunity to perform accounting applications using technology.

STANDARDS AND INDICATORS:

BMM.HS.1.1 Explain the purpose of and demonstrate the steps of the accounting cycle using generally accepted accounting principles (GAAP).

BMM.HS.1.1.a	Define accounting and related concepts to explain the purpose of the accounting system and its relationship to business.
BMM.HS.1.1.b	Analyze business transactions using a journal and describe the effect on the accounting equation.
BMM.HS.1.1.c	Apply the concepts of debits and credits through the use of T-accounts, normal account balances, and the chart of accounts.
BMM.HS.1.1.d	Evaluate changes in a fiscal period using financial statements and worksheets.
BMM.HS.1.1.e	Analyze and record transactions including adjusting, closing, and correcting entries.
BMM.HS.1.1.f	Post to the ledger and compare the relationship between journals, ledgers, and financial statements.

BMM.HS.1.2 Demonstrate the importance of cash control procedures and ethics in business.

BMM.HS.1.2.a	Define and apply cash control procedures by using documents to verify balances.
BMM.HS.1.2.b	Apply appropriate techniques to account for investments and withdrawals by owners.
BMM.HS.1.2.c	Explain a need for a code of ethics in accounting and the ethical responsibilities required of accountants.
BMM.HS.1.2.d	Demonstrate ethical decision-making skills through business scenarios.

ACCOUNTING 1 (cont.)

BMM.HS.1.3 Prepare, interpret, and analyze financial statements for a sole proprietorship.

BMM.HS.1.3.a Evaluate the impact of data used in the development of financial statements.

BMM.HS.1.3.b Prepare an income statement and balance sheet.

BMM.HS.1.3.c Assess financial statements to summarize business performance.

BMM.HS.1.4 Investigate career opportunities, career readiness skills, and technology in the field of accounting.

BMM.HS.1.4.a Research the educational requirements, certifications, and skills needed to be successful in an accounting-related career.

BMM.HS.1.4.b Describe various careers and opportunities related to accounting.

BMM.HS.1.4.c Demonstrate both verbal and nonverbal communication skills related to the workplace.

BMM.HS.1.4.d Apply analytical, critical thinking, and leadership skills to the workplace.

BMM.HS.1.4.e Demonstrate the ability to work as a team by setting goals and accomplishing individual and team tasks on time.

BMM.HS.1.4.f Understand the use of information technology in the accounting industry

MARKETING MANAGEMENT

Course Description

Marketing Management furthers student understanding and skills of the marketing functions and strategies including pricing, product/service management, channel management, promotion, and marketing-information management.

Standards and Indicators:

BMM.HS.20.1 Analyze the concepts and strategies utilized in determining and adjusting prices to maximize return and meet customers' perceptions of value.

- BMM.HS.20.1.a Explain the nature and scope of the pricing function.
- BMM.HS.20.1.b Explain factors affecting pricing decisions.
- BMM.HS.20.1.c Describe the ethical and legal considerations for pricing.
- BMM.HS.20.1.d Explain the use of technology in the pricing function.

BMM.HS.20.2 AIdentify and assess the concepts and processes needed to obtain, develop, maintain, and/or improve a product or service mix in response to market opportunities and to build the brand for the organization.

- BMM.HS.20.2.a Identify product/service management concepts to understand its nature and scope.
- BMM.HS.20.2.b Generate product ideas to contribute to ongoing business success.
- BMM.HS.20.2.c Apply quality assurances to enhance product/service offerings (i.e. customer service, warranties, guarantees, etc).
- BMM.HS.20.2.d Employ product-mix strategies to meet customer expectations.
- BMM.HS.20.2.e Determine ways to position a company to acquire a desired business image.
- BMM.HS.20.2.f Determine ways to position products/services to acquire desired business image.

MARKETING MANAGEMENT (cont.)

BMM.HS.20.3 Assess channel management strategies and its role in marketing.

- BMM.HS.20.3.a Explain the nature and scope of channel management.
- BMM.HS.20.3.b Explain the nature of channels of distribution.
- BMM.HS.20.3.c Describe the use of technology in the channel management function.
- BMM.HS.20.3.d Describe the ethical and legal considerations for channel management.

BMM.HS.20.4 Investigate the nature and scope of promotion.

- BMM.HS.20.4.a Explain the role of promotion as a marketing function.
- BMM.HS.20.4.b Examine the types of promotion (i.e., institutional, product).
- BMM.HS.20.4.c Identify the elements of the promotional mix.
- BMM.HS.20.4.d Demonstrate an understanding of promotional channels used to communicate with targeted audiences.
- BMM.HS.20.4.e Identify and describe the types of advertising media.

BMM.HS.20.5 Identify marketing-information management strategies and analyze the role of marketing research in decision-making.

- BMM.HS.20.5.a Describe the need for marketing data.
- BMM.HS.20.5.b Describe options businesses use to obtain marketing research data (i.e., primary and secondary research).
- BMM.HS.20.5.c Describe data-collection methods (e.g., observations, mail, diaries, telephone, Internet, discussion groups, interviews, scanners, tracking tools).
- BMM.HS.20.5.d Analyze data monitored for marketing decision making.
- BMM.HS.20.5.e Describe the regulations and ethical implications of marketing-information management.

ENTREPRENEURSHIP

COURSE DESCRIPTION

Entrepreneurship is a course with emphasis on the evaluation of the business skills and commitment necessary to successfully operate an entrepreneurial venture and review the challenges and rewards of entrepreneurship. The role of entrepreneurial businesses in the United States and the impact on the national and global economy will be explored.

STANDARDS AND INDICATORS:

BMM.HS.13.1 Identify characteristics and skills of entrepreneurs.

BMM.HS.13.1.a	Analyze personal strengths, skills, and talents necessary to be an entrepreneur.
BMM.HS.13.1.b	Identify responsible behavior, attitude, and leadership ability.
BMM.HS.13.1.c	Demonstrate problem-solving skills.
BMM.HS.13.1.d	Describe the history and development of successful and non-successful entrepreneurial ventures.
BMM.HS.13.1.e	Explore career opportunities in entrepreneurship.

BMM.HS.13.2 Evaluate business ownership as related to entrepreneurship.

BMM.HS.13.2.a	Identify and compare advantages and disadvantages of various forms of business ownership.
BMM.HS.13.2.b	Explain the legal and ethical issues affecting businesses.
BMM.HS.13.2.c	Analyze the advantages and disadvantages of methods of entering an entrepreneurial venture.

ENTREPRENEURSHIP (cont.)

BMM.HS.13.3 Analyze the management, financial, marketing, and legal skills necessary to successfully operate and grow an entrepreneurial venture.

BMM.HS.13.3.a	Describe the importance of strategic management to a small entrepreneurial business.
BMM.HS.13.3.b	Develop vision, mission, goals, objectives, and policies for an entrepreneurial venture.
BMM.HS.13.3.c	Explain the importance of effective financial management in developing, growing, and sustaining an entrepreneurial venture.
BMM.HS.13.3.d	Develop a marketing plan and strategies to position the product and/or service in the target market.
BMM.HS.13.3.e	Identify the legal documents and financial records for business operations.
BMM.HS.13.3.f	Evaluate the venture idea utilizing the components of a business plan.

BMM.HS.13.4 Analyze the role of entrepreneurship in the global economy.

BMM.HS.13.4.a	Identify entrepreneurial venture opportunities in international trade.
BMM.HS.13.4.b	Analyze global issues and trends for entrepreneurial ventures.
BMM.HS.13.4.c	Determine the impact of cultural and social requirements on international trade.

INTRODUCTION TO BUSINESS

COURSE DESCRIPTION

This course is designed to introduce students to the Business, Marketing, and Management Career Field, which focuses on formation and structure, economics, management, marketing, financial management, and operations. Career opportunities and technology will also be used and discussed.

STANDARDS AND INDICATORS:

BMM.HS.16.1 Analyze the formation and structure of a business.

- BMM.HS.16.1.a Explain the role of business in society.
- BMM.HS.16.1.b Explain types of business ownership.
- BMM.HS.16.1.c Describe the two basic types of business profit structures (i.e. profit and not for profit).
- BMM.HS.16.1.d Examine the opportunities and risks of entrepreneurship.

BMM.HS.16.2 Differentiate economic systems in order to recognize the environments in which businesses function.

- BMM.HS.16.2.a Compare and contrast economic goods and services.
- BMM.HS.16.2.b Analyze economic indicators and how they affect the business cycle.
- BMM.HS.16.2.c Explain the principles of supply and demand and pricing.
- BMM.HS.16.2.d Compare and contrast the basic features of economic systems.
- BMM.HS.16.2.e Identify factors that impact a business' profit and risk.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.3 Interpret business profitability, sustainability, and the necessary dependencies upon leadership, management, staff, and community.

BMM.HS.16.3.a Analyze the management functions within the business environment (e.g. planning, organizing, leading, controlling).

BMM.HS.16.3.b Differentiate between leading and managing.

BMM.HS.16.3.c Identify the structural and economic impact of human resource management within a business.

BMM.HS.16.3.d Evaluate how organizational culture impacts business and retaining quality employees.

BMM.HS.16.3.e Identify and apply the use of software, tools, and techniques that impact business productivity.

BMM.HS.16.3.f Assess the ethical dilemmas that arise between business decisions and social responsibility.

BMM.HS.16.4 Identify the fundamental strategies of marketing and its role within an organization.

BMM.HS.16.4.a Describe marketing and its relevance in a global economy.

BMM.HS.16.4.b Analyze and explain the elements of the marketing mix and their impact on business.

BMM.HS.16.5 Demonstrate finance management and decision making through the use of accounting principles in business.

BMM.HS.16.5.a Explain and provide examples of accounting concepts and financial records used by businesses.

BMM.HS.16.5.b Explain the role of finance in business and how it affects decision-making.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.6 Evaluate and describe the functions of business operations.

BMM.HS.16.6.a Identify and analyze the key business processes and functions needed to bring products and services to market.

BMM.HS.16.6.b Explain the business implications of proprietary information, technology, and forms of security on profitability and sustainability.

BMM.HS.16.7 Evaluate and explore careers in the areas of business, marketing, and management.

BMM.HS.16.7.a Identify careers and organizations within a business career field.

BMM.HS.16.7.b Compare and contrast personal interests, aptitudes, information, and skills necessary for each career pathway.

BMM.HS.16.7.c Research and discuss specific verbal and nonverbal techniques for effective business communication to include cultural respect and meaning.

BMM.HS.16.7.d Conduct a job market search and devise a career plan that reflects business career interests, pathways, and postsecondary options.

MARKETING MANAGEMENT

Course Description

Marketing Management furthers student understanding and skills of the marketing functions and strategies including pricing, product/service management, channel management, promotion, and marketing-information management.

Standards and Indicators:

BMM.HS.20.1 Analyze the concepts and strategies utilized in determining and adjusting prices to maximize return and meet customers' perceptions of value.

- BMM.HS.20.1.a Explain the nature and scope of the pricing function.
- BMM.HS.20.1.b Explain factors affecting pricing decisions.
- BMM.HS.20.1.c Describe the ethical and legal considerations for pricing.
- BMM.HS.20.1.d Explain the use of technology in the pricing function.

BMM.HS.20.2 AIdentify and assess the concepts and processes needed to obtain, develop, maintain, and/or improve a product or service mix in response to market opportunities and to build the brand for the organization.

- BMM.HS.20.2.a Identify product/service management concepts to understand its nature and scope.
- BMM.HS.20.2.b Generate product ideas to contribute to ongoing business success.
- BMM.HS.20.2.c Apply quality assurances to enhance product/service offerings (i.e. customer service, warranties, guarantees, etc).
- BMM.HS.20.2.d Employ product-mix strategies to meet customer expectations.
- BMM.HS.20.2.e Determine ways to position a company to acquire a desired business image.
- BMM.HS.20.2.f Determine ways to position products/services to acquire desired business image.

MARKETING MANAGEMENT (cont.)

BMM.HS.20.3 Assess channel management strategies and its role in marketing.

- BMM.HS.20.3.a Explain the nature and scope of channel management.
- BMM.HS.20.3.b Explain the nature of channels of distribution.
- BMM.HS.20.3.c Describe the use of technology in the channel management function.
- BMM.HS.20.3.d Describe the ethical and legal considerations for channel management.

BMM.HS.20.4 Investigate the nature and scope of promotion.

- BMM.HS.20.4.a Explain the role of promotion as a marketing function.
- BMM.HS.20.4.b Examine the types of promotion (i.e., institutional, product).
- BMM.HS.20.4.c Identify the elements of the promotional mix.
- BMM.HS.20.4.d Demonstrate an understanding of promotional channels used to communicate with targeted audiences.
- BMM.HS.20.4.e Identify and describe the types of advertising media.

BMM.HS.20.5 Identify marketing-information management strategies and analyze the role of marketing research in decision-making.

- BMM.HS.20.5.a Describe the need for marketing data.
- BMM.HS.20.5.b Describe options businesses use to obtain marketing research data (i.e., primary and secondary research).
- BMM.HS.20.5.c Describe data-collection methods (e.g., observations, mail, diaries, telephone, Internet, discussion groups, interviews, scanners, tracking tools).
- BMM.HS.20.5.d Analyze data monitored for marketing decision making.
- BMM.HS.20.5.e Describe the regulations and ethical implications of marketing-information management.

BUSINESS LAW

COURSE DESCRIPTION

In this course, students develop an understanding of laws and regulations that impact business. Topics included are contracts, employment law, sources of law, and the United States judicial system and legal procedures.

STANDARDS AND INDICATORS:

BMM.HS.9.1 Analyze the relationship between ethics and the law and describe sources of the law, structure of the court system, and classifications of laws.

BMM.HS.9.1.a	Describe the structure of federal and state court systems.
BMM.HS.9.1.b	Differentiate between procedural and substantive law.
BMM.HS.9.1.c	Compare and contrast civil and criminal law and their respective trial processes.
BMM.HS.9.1.d	Explain the advantages and disadvantages of negotiation, arbitration, mediation, and litigation.
BMM.HS.9.1.e	Distinguish between a tort and crime including burden of proof, penalties, and remedies.
BMM.HS.9.1.f	Describe the role of values in constructing an ethical code and a legal system.

BMM.HS.9.2 Identify the legal environment of businesses, domestic and international.

BMM.HS.9.2.a	Describe the major types of business organizations, including sole proprietorships, partnerships, corporations, and limited liability companies.
BMM.HS.9.2.b	Identify legislation and entities that regulate employment rights, working conditions and benefits, and equal opportunity in the workplace.
BMM.HS.9.2.c	Demonstrate knowledge of agency law, fiduciary duty, and responsibilities.
BMM.HS.9.2.d	Explain the relationship between national and international law.

BUSINESS LAW (cont.)

BMM.HS.9.3 Analyze the elements, concepts, and principles of contract law.

BMM.HS.9.3.a	Explain the contractual relationship and identify the elements of a legally binding contract (offer, acceptance, mutual assent, consideration, capacity).
BMM.HS.9.3.b	Identify the classifications of contracts (valid, void, voidable, unenforceable, express, implied, bilateral, unilateral, oral, and written).
BMM.HS.9.3.c	Describe breach of contract and remedies available (e.g., monetary, specific performance, liquidation) when a contract is breached.
BMM.HS.9.3.d	Identify types of contracts that must be in writing under the statute of frauds.
BMM.HS.9.3.e	Compare ways a contract can be discharged or terminated.

BMM.HS.9.4 Analyze the protections afforded consumers through consumer laws.

BMM.HS.9.4.a	Describe consumer protection and product liability laws and warranties.
BMM.HS.9.4.b	Define common, unfair, and deceptive practices.
BMM.HS.9.4.c	Identify and state the purpose of legislation that regulates consumer credit.
BMM.HS.9.4.d	Explain the legal rules that apply to personal property, real property, and intellectual property.
BMM.HS.9.4.e	Explain both the landlord and tenants rights and responsibilities.

BMM.HS.9.5 Analyze the role and importance of employment law related to the conduct of business.

BMM.HS.9.5.a	Explain the nature of the employee-employer relationship.
BMM.HS.9.5.b	Describe an employer's right to free speech in the workplace.
BMM.HS.9.5.c	Describe the elements needed in a social media policy.
BMM.HS.9.5.d	Explain the powers and operation of the Equal Employment Opportunity Commission (EEOC).

MANAGEMENT AND LEADERSHIP

Course Description

This course emphasizes the basic concepts of management and leadership within a business or organization. It addresses characteristics, organization, and operation of business as major sectors of the economy. Students will investigate management issues involved in planning, organizing, leading, and controlling an organization.

Standards and Indicators:

BMM.HS.18.1 Assess the importance of business management and the role of managers as it relates to the success of business.

- BMM.HS.18.1.a Define management and the manager's role.
- BMM.HS.18.1.b Analyze management theories and their application within a business environment.
- BMM.HS.18.1.c Compare and contrast the basic forms of business ownership.
- BMM.HS.18.1.d Analyze the organizational structure of a business.
- BMM.HS.18.1.e Explain the relationship between and among management levels.
- BMM.HS.18.1.f Explore employment opportunities in business management and administration.

BMM.HS.18.2 Analyze management functions and their implementation and integration within the business environment.

- BMM.HS.18.2.a Describe the major types of business organizations, including sole proprietorships, partnerships, corporations, and limited liability companies.
- BMM.HS.18.2.b Identify legislation and entities that regulate employment rights, working conditions and benefits, and equal opportunity in the workplace.
- BMM.HS.18.2.c Demonstrate knowledge of agency law, fiduciary duty, and responsibilities.
- BMM.HS.18.2.d Explain the relationship between national and international law.
- BMM.HS.18.2.e Analyze management's role when implementing change including planning and unforeseen issues
- BMM.HS.18.2.f Discuss the importance of the controlling function in the business environment.
- BMM.HS.18.2.g Determine alternative actions when goals are not being met.

MANAGEMENT AND LEADERSHIP (cont.)

BMM.HS.18.3 Describe human resource functions and their importance to an organization's successful operation.

- BMM.HS.18.3.a Analyze the role of ethics in human resource management.
- BMM.HS.18.3.b Explain the hiring process.
- BMM.HS.18.3.c Identify the impact of orientation, training, and performance appraisals on employees and the organization.
- BMM.HS.18.3.d Examine compensation, promotion, benefits, and incentives of employees.
- BMM.HS.18.3.e Discuss and identify the legal implications and processes relating to separation, termination, and transition.
- BMM.HS.18.3.f Evaluate alternative options to employment (e.g., outsourcing, freelancers, contract labor).

BMM.HS.18.4 Analyze financial data influenced by internal and external factors in order to make short and long term decisions.

- BMM.HS.18.4.a Interpret the data shown on financial statements (e.g., income statement, balance sheet, cash flow statement, statement of net worth).
- BMM.HS.18.4.b Explain ways to minimize and manage risk.
- BMM.HS.18.4.c Assess the short-term and long-term financial needs of an organization.

BMM.HS.18.5 Investigate the strategic role of a manager and the contributions made to the success of a business.

- BMM.HS.18.5.a Describe the process and systems implemented to monitor, plan, and control the daily operational activities.
- BMM.HS.18.5.b Identify internal/external factors that influence management decisions.
- BMM.HS.18.5.c Explain the strategic planning process within an organization.
- BMM.HS.18.5.d Understand the role and function of innovation management.

MANAGEMENT AND LEADERSHIP (cont.)

BMM.HS.18.6 Develop personal management skills (emotional intelligence) to function effectively and efficiently in a business environment.

- BMM.HS.18.6.a Analyze how managers at various levels manage their time differently.
- BMM.HS.18.6.b Identify how an effective stress reduction plan affects the efficiency of business.
- BMM.HS.18.6.c Demonstrate effective communication skills (e.g., reading, listening, writing, technology, verbal, nonverbal).
- BMM.HS.18.6.d Examine internal and external business interactions and networking to build positive relationships.

BMM.HS.18.7 Explain the concept of leadership.

- BMM.HS.18.7.a Identify and discuss characteristics of effective and ineffective leaders.
- BMM.HS.18.7.b Differentiate between leading and managing.
- BMM.HS.18.7.c Differentiate between power, authority, and leadership.
- BMM.HS.18.7.d Identify various leadership styles.
- BMM.HS.18.7.e Explain the importance of motivation in leadership.

BMM.HS.18.8 Employ leadership skills to achieve workplace objectives.

- BMM.HS.18.8.a Determine personal leadership style and the appropriate style for varying situations.
- BMM.HS.18.8.b Identify ways in which a leader demonstrates social responsibility and ethics (e.g., initiative, honesty, integrity, cultural sensitivity, empathy).
- BMM.HS.18.8.c Demonstrate conflict resolution and negotiation skills.
- BMM.HS.18.8.d Examine team building techniques to accomplish goals (e.g., consensus building, negotiation, motivation to encourage teamwork).

INTRODUCTION TO BUSINESS

COURSE DESCRIPTION

This course is designed to introduce students to the Business, Marketing, and Management Career Field, which focuses on formation and structure, economics, management, marketing, financial management, and operations. Career opportunities and technology will also be used and discussed.

STANDARDS AND INDICATORS:

BMM.HS.16.1 Analyze the formation and structure of a business.

- BMM.HS.16.1.a Explain the role of business in society.
- BMM.HS.16.1.b Explain types of business ownership.
- BMM.HS.16.1.c Describe the two basic types of business profit structures (i.e. profit and not for profit).
- BMM.HS.16.1.d Examine the opportunities and risks of entrepreneurship.

BMM.HS.16.2 Differentiate economic systems in order to recognize the environments in which businesses function.

- BMM.HS.16.2.a Compare and contrast economic goods and services.
- BMM.HS.16.2.b Analyze economic indicators and how they affect the business cycle.
- BMM.HS.16.2.c Explain the principles of supply and demand and pricing.
- BMM.HS.16.2.d Compare and contrast the basic features of economic systems.
- BMM.HS.16.2.e Identify factors that impact a business' profit and risk.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.3 Interpret business profitability, sustainability, and the necessary dependencies upon leadership, management, staff, and community.

BMM.HS.16.3.a Analyze the management functions within the business environment (e.g. planning, organizing, leading, controlling).

BMM.HS.16.3.b Differentiate between leading and managing.

BMM.HS.16.3.c Identify the structural and economic impact of human resource management within a business.

BMM.HS.16.3.d Evaluate how organizational culture impacts business and retaining quality employees.

BMM.HS.16.3.e Identify and apply the use of software, tools, and techniques that impact business productivity.

BMM.HS.16.3.f Assess the ethical dilemmas that arise between business decisions and social responsibility.

BMM.HS.16.4 Identify the fundamental strategies of marketing and its role within an organization.

BMM.HS.16.4.a Describe marketing and its relevance in a global economy.

BMM.HS.16.4.b Analyze and explain the elements of the marketing mix and their impact on business.

BMM.HS.16.5 Demonstrate finance management and decision making through the use of accounting principles in business.

BMM.HS.16.5.a Explain and provide examples of accounting concepts and financial records used by businesses.

BMM.HS.16.5.b Explain the role of finance in business and how it affects decision-making.

INTRODUCTION TO BUSINESS (cont.)

BMM.HS.16.6 Evaluate and describe the functions of business operations.

BMM.HS.16.6.a Identify and analyze the key business processes and functions needed to bring products and services to market.

BMM.HS.16.6.b Explain the business implications of proprietary information, technology, and forms of security on profitability and sustainability.

BMM.HS.16.7 Evaluate and explore careers in the areas of business, marketing, and management.

BMM.HS.16.7.a Identify careers and organizations within a business career field.

BMM.HS.16.7.b Compare and contrast personal interests, aptitudes, information, and skills necessary for each career pathway.

BMM.HS.16.7.c Research and discuss specific verbal and nonverbal techniques for effective business communication to include cultural respect and meaning.

BMM.HS.16.7.d Conduct a job market search and devise a career plan that reflects business career interests, pathways, and postsecondary options.

PERSONAL FINANCE

COURSE DESCRIPTION

The goal of Personal Finance is to help students become financially responsible, conscientious members of society. To reach that end, this course develops student understanding and decision-making skills in such areas as income, money management, budgeting, financial goal attainment, the wise use of credit, insurance, and investments.

STANDARDS AND INDICATORS:

BMM.HS.22.1 Develop and evaluate a plan to earn an income and manage finances to achieve personal goals.

BMM.HS.22.1.a Identify various forms of income and analyze the career clusters to explore how career choice, level of education, geographical location, type of industry, skill level, and work ethic affect income and personal goal attainment.

BMM.HS.22.1.b Analyze the impact of sociological, economic, and technological changes on the future job outlook and potential to earn income.

BMM.HS.22.1.c Interpret a pay stub to calculate gross and net pay.

BMM.HS.22.1.d Evaluate the impact of taxes on personal financial planning.

BMM.HS.22.1.e Describe information needed and required forms relevant to the completion of state and federal income tax forms (e.g., W-4, W-2, 1040).

BMM.HS.22.1.f Develop and evaluate a personal budget based on income, employee benefits and incentives, savings and investment goals, and retirement contributions and analyze the life cycle of net worth.

BMM.HS.22.2 Examine budgeting, savings, and investment strategies based on individual preferences and circumstances to achieve financial goals.

BMM.HS.22.2.a Compare and contrast saving and investing strategies that consider risk, return, and building wealth.

BMM.HS.22.2.b Determine factors that influence decisions to save.

BMM.HS.22.2.c Create short- and long-term financial goals for a personal budget.

PERSONAL FINANCE (cont.)

BMM.HS.22.2.d Analyze the power of compound interest and the importance of starting early in implementing a plan of saving.

BMM.HS.22.2.e Examine the concept of time, value of money, and rates of return that impact monetary decisions.

BMM.HS.22.2.f Investigate opportunities to participate in employer-sponsored retirement plans (e.g., IRA, 401K, Roth IRA).

BMM.HS.22.3 Compare and evaluate the products and services financial institutions provide.

BMM.HS.22.3.a Describe and explain the use of different forms of financial exchange (e.g., cash, credit, debit, electronic funds transfer, and other emerging payment forms, etc.) from a local, national, and global consumer perspective.

BMM.HS.22.3.b Explain legal and ethical responsibilities associated with financial exchanges.

BMM.HS.22.3.c Identify the structure and functions of the Federal Reserve System and how it facilitates the functions of money.

BMM.HS.22.3.d Distinguish between the various types of financial institutions and the basic products and services provided and evaluate each for related costs and fees.

BMM.HS.22.3.e Compare and contrast types of checking and savings accounts and the forms of financial exchange.

BMM.HS.22.3.f Analyze privacy and security issues associated with financial exchanges (e.g. cash transfers, electronic payments, mobile payments, online and traditional banking, etc.)

BMM.HS.22.4 Analyze factors that affect the choice of credit, the cost of credit, maintaining credit, and the legal aspects of using credit for personal goals

BMM.HS.22.4.a Identify the C's of creditworthiness (e.g., collateral, character, capacity, conditions).

BMM.HS.22.4.b Evaluate the opportunity cost for each financial decision involving credit (e.g., credit cards, auto loans, college loans).

PERSONAL FINANCE (cont.)

BMM.HS.22.4.d Research the rights and responsibilities of consumers according to credit legislation (e.g., truth-in-lending, fair credit reporting, equal credit opportunity, fair debt collection).

BMM.HS.22.4.e Explain the importance of credit ratings and credit scores and the effect on an individual's credit report, cost of credit, and future use of credit.

BMM.HS.22.4.f Investigate methods to resolve credit discrepancies and minimize the danger and ramifications of identity theft.

BMM.HS.22.5 Apply a decision-making model to maximize consumer satisfaction when buying goods and services.

BMM.HS.22.5.a Identify and use reliable consumer resources to collect information for making buying decisions about durable and nondurable goods.

BMM.HS.22.5.b Identify consumer rights laws and explain how they protect consumer rights.

BMM.HS.22.5.c Develop comparison shopping practices and apply them to purchasing decisions.

BMM.HS.22.5.d Compare the costs and benefits of purchasing, leasing, and renting (e.g., vehicle, tools, furniture, and housing).

BMM.HS.22.5.e Research the types and use of consumer assistance services and advocacy groups provided to address consumer rights and responsibilities (e.g., government, the Better Business Bureau, and manufacturers).

BMM.HS.22.5.f Describe the role of supply and demand on the availability and price of goods and services in the regional, national, and international marketplace.

BMM.HS.22.5.g Examine the impact of advertising and marketing on consumer demand and decision making in the regional, national, and international marketplace.

BMM.HS.22.6 Analyze choices available to consumers for protection against risk and financial loss.

BMM.HS.22.6.a Define and utilize the terms, concepts, and practices instrumental to varied forms of insurance (e.g. deductible, premium, peril, risk, etc.).

BMM.HS.22.6.b Compare risk management strategies (e.g., retention, avoidance, reduction, transfer).

PERSONAL FINANCE (cont.)

BMM.HS.22.6.c	Explain how one's mindset, habits, behaviors, and choices affect the cost of insurance and identify ways consumers can reduce this cost (e.g. smokers are charged more for health insurance and quitting smoking could reduce that cost).
BMM.HS.22.6.d	Compare and contrast types of insurance associated with different risks (e.g., auto mobile, personal and professional liability, home, renters, health, life, long-term care, disability).
BMM.HS.22.6.e	Develop a plan for insurance coverage taking into account coverage, premium costs, willingness to take risks, income, age, and socioeconomic status.
BMM.HS.22.6.f	Explain how retirement planning and estate planning are risk-management strategies.

BMM.HS.22.7 Analyze choices and resources available for financing postsecondary education.

BMM.HS.22.7.a	Describe the multiple pathways to postsecondary education and career preparedness and analyze the costs and benefits associated with each choice.
BMM.HS.22.7.b	Identify the purpose of the Free Application for Federal Student Aid (FAFSA) to determine eligibility for grants, scholarships, and loans and the essential information.
BMM.HS.22.7.c	Evaluate the costs and benefits of postsecondary education funding and any repayment requirements (e.g. NEST 529 college saving plan, scholarships, grants, federal and private loans, work-study, etc.).
BMM.HS.22.7.d	Explore the options for borrowers struggling to make payments and the consequences of failure to repay student loans.
BMM.HS.22.7.e	Correlate salary potential to the education requirements of different careers by identifying strategies to reduce student loan debt.

WEALTH BUILDING FUNDAMENTALS

COURSE DESCRIPTION

This course is designed to provide knowledge of personal financial management. Students learn to manage their resources to make sound personal financial decisions, interpret data to develop short- and long-term budgetary plans, and develop product knowledge related to financial planning. Students will develop a financial plan that includes savings, investing, credit management, risk management, and retirement.

STANDARDS AND INDICATORS:

BMM.HS.24.1 Identify and develop essential financial and personal attributes that contribute to a successful income-producing career.

BMM.HS.24.1.a Distinguish between various forms of income and explain how it can be obtained and accumulated.

BMM.HS.24.1.b Connect factors that affect income as part of the career decision-making process and potential outcomes.

BMM.HS.24.2 Compare strategies used to maintain, monitor, control, and accurately plan the use of financial resources.

BMM.HS.24.2.a Prioritize financial needs and goals to determine strategic financial strategy decisions.

BMM.HS.24.2.b Create a plan for financial management based upon personal goals.

BMM.HS.24.3 Evaluate strategies used to establish, build, maintain, monitor, control, and use credit for personal and financial goals.

BMM.HS.24.3.a Estimate and evaluate the opportunity cost for each financial decision involving credit.

BMM.HS.24.3.b Identify applicable strategies to establish and maintain a good credit rating for beneficial credit use at all stages of life and financial capacity.

BMM.HS.24.3.c Summarize the loan application process and explain how each part is used to determine the creditworthiness of the applicant.

BMM.HS.24.3.d Evaluate credit laws and regulations.

WEALTH BUILDING FUNDAMENTALS (cont.)

BMM.HS.24.4 Apply a decision-making model to maximize consumer satisfaction when buying goods and services.

- BMM.HS.24.4.a Distinguish between income and wealth.
- BMM.HS.24.4.b Evaluate the need for saving and investing to ensure financial well-being and wealth building.
- BMM.HS.24.4.c Evaluate saving and investment options and criteria.

BMM.HS.24.5 Compare and contrast the economic advantages and disadvantages of real estate as an investment tool.

- BMM.HS.24.5.a Identify the advantages and disadvantages of buying versus renting a home.
- BMM.HS.24.5.b Identify potential barriers to purchasing real estate and describe how to mitigate or avoid them.
- BMM.HS.24.5.c Explain the risks and rewards of investing in income-producing real estate (e.g., residential, agricultural, commercial).

BMM.HS.24.6 Assess risks in life and how to protect against the consequences of risk.

- BMM.HS.24.6.a Identify common types of risks and basic risk management strategies.
- BMM.HS.24.6.b Evaluate insurance as a risk management strategy.

BMM.HS.24.7 Investigate appropriate technology solutions to interpret, analyze, and utilize emerging trends in business finance

- BMM.HS.24.7.a Apply technology or software tools as they relate to financial activities.
- BMM.HS.24.7.b Understand the use of information technology in business and industry.
- BMM.HS.24.7.c Analyze financial data to make decisions.
- BMM.HS.24.7.d Predict potential barriers to the availability of financial technology and how to overcome them.

ACCOUNTING 1

COURSE DESCRIPTION

This one-semester course covers a service business organized as a sole proprietorship which will include accounting principles involved in the preparation and maintenance of financial records concerned with business management and operations. It is a comprehensive introduction to basic accounting including recording, summarizing, and reporting and accounting systems and controls. Students are exposed to careers in the accounting field and are given the opportunity to perform accounting applications using technology.

STANDARDS AND INDICATORS:

BMM.HS.1.1 Explain the purpose of and demonstrate the steps of the accounting cycle using generally accepted accounting principles (GAAP).

BMM.HS.1.1.a Define accounting and related concepts to explain the purpose of the accounting system and its relationship to business.

BMM.HS.1.1.b Analyze business transactions using a journal and describe the effect on the accounting equation.

BMM.HS.1.1.c Apply the concepts of debits and credits through the use of T-accounts, normal account balances, and the chart of accounts.

BMM.HS.1.1.d Evaluate changes in a fiscal period using financial statements and worksheets.

BMM.HS.1.1.e Analyze and record transactions including adjusting, closing, and correcting entries.

BMM.HS.1.1.f Post to the ledger and compare the relationship between journals, ledgers, and financial statements.

BMM.HS.1.2 Demonstrate the importance of cash control procedures and ethics in business.

BMM.HS.1.2.a Define and apply cash control procedures by using documents to verify balances.

BMM.HS.1.2.b Apply appropriate techniques to account for investments and withdrawals by owners.

BMM.HS.1.2.c Explain a need for a code of ethics in accounting and the ethical responsibilities required of accountants.

BMM.HS.1.2.d Demonstrate ethical decision-making skills through business scenarios.

ACCOUNTING 1 (cont.)

BMM.HS.1.3 Prepare, interpret, and analyze financial statements for a sole proprietorship.

BMM.HS.1.3.a Evaluate the impact of data used in the development of financial statements.

BMM.HS.1.3.b Prepare an income statement and balance sheet.

BMM.HS.1.3.c Assess financial statements to summarize business performance.

BMM.HS.1.4 Investigate career opportunities, career readiness skills, and technology in the field of accounting.

BMM.HS.1.4.a Research the educational requirements, certifications, and skills needed to be successful in an accounting-related career.

BMM.HS.1.4.b Describe various careers and opportunities related to accounting.

BMM.HS.1.4.c Demonstrate both verbal and nonverbal communication skills related to the workplace.

BMM.HS.1.4.d Apply analytical, critical thinking, and leadership skills to the workplace.

BMM.HS.1.4.e Demonstrate the ability to work as a team by setting goals and accomplishing individual and team tasks on time.

BMM.HS.1.4.f Understand the use of information technology in the accounting industry

ECONOMICS

COURSE DESCRIPTION

Economics is a course designed to help students understand decision-making. This economic reasoning process involves the consideration of costs and benefits with the ultimate goal of making decisions that will enable individuals and societies to be as well-off as possible. The course will use economic principles applied to current events and issues. Emphasis includes decision-making, allocation of scarce resources, incentives, economic institutions, markets and prices, economic systems, market structures, productivity, role of government, global economic concepts, and economic indicators.

STANDARDS AND INDICATORS:

BMM.HS.12.1 Apply economic reasoning skills to make informed decisions and become effective participants in the economy at all levels.

BMM.HS.12.1.a	Evaluate decisions by systematically considering alternatives and consequences through the use of cost benefit analysis.
BMM.HS.12.1.b	Analyze how incentives influence choices that may result in policies with a range of costs and benefits for different groups.
BMM.HS.12.1.c	Assess the incentives for investing in personal education, skills, and talents.
BMM.HS.12.1.d	Examine data about current economic conditions and how these conditions can influence decisions.

BMM.HS.12.2 Explain the role of markets in determining prices and allocating scarce goods and services.

BMM.HS.12.2.a	Understand the role of competition, markets, and prices.
BMM.HS.12.2.b	Illustrate how markets determine changing equilibrium prices through supply and demand analysis.
BMM.HS.12.2.c	Hypothesize how competition between sellers could result in lower prices, higher-quality products, and better customer service.
BMM.HS.12.2.d	Investigate possible causes and consequences of shortages and surpluses.

ECONOMICS (cont.)

BMM.HS.12.3 Explain how economic institutions such as clearly defined property rights, open markets, and the rule of law impact different individuals and various groups.

BMM.HS.12.3.a Summarize and assess the functions of economic institutions (e.g., property rights, open markets, and the rule of law) and their effects on markets and entrepreneurship.

BMM.HS.12.3.b Explain how the U.S. government defines, enforces, and puts limitations on the economic institutions (e.g., property rights, open markets, and the rule of law) and compare this to other countries.

BMM.HS.12.3.c Calculate and describe the impact of economic indicators (e.g., GDP, unemployment, inflation) including common uses and possible measurement error(s).

BMM.HS.12.3.d Describe the functions, roles, and limitations of the Federal Reserve System and its influence through monetary policy.

BMM.HS.12.3.e Explain how banks and a sound monetary system are critical to a functioning economy.

BMM.HS.12.4 Demonstrate personal and business financial management by developing plans to support short- and long-term goals.

BMM.HS.12.4.a Identify and critique the tools, strategies, and systems used to establish, build, maintain, monitor, and control the use of financial resources.

BMM.HS.12.4.b Demonstrate an understanding of decisions related to checking accounts, loans, down payments, insurance, taxes, and compound interest.

BMM.HS.12.4.c Develop a plan to support short- and long-term goals including budgeting, career planning, banking, debt management, effects of taxes on income, and retirement planning.

BMM.HS.12.4.d Evaluate savings, investment, and risk management strategies to achieve short- and long-term goals.

ECONOMICS (cont.)

BMM.HS.12.5 Analyze the roles and responsibilities of government from different economic perspectives.

BMM.HS.12.5.a Examine how governments utilize taxation to provide goods and services to society.

BMM.HS.12.5.b Analyze how the government can use taxation and spending policies to influence behavior and alter market outcomes.

BMM.HS.12.5.c Critique government policies and regulations in areas of market failure.

BMM.HS.12.5.d Evaluate the effects of fiscal policy on economic outcomes including budget deficits/surpluses, national debt, and economic systems.

BMM.HS.12.5.e Compare the impact a government's fiscal policy has on different types of economic systems (e.g,. command/communism, mixed, socialism, market, and traditional economic systems).

BMM.HS.12.5.f Evaluate how the government uses economic indicators (e.g., unemployment rate, inflation, and real GDP) to influence their fiscal policy decisions and describe the possible outcomes.

BMM.HS.12.5.g Evaluate and critique the costs and benefits of current events and public policy alternatives and assess who enjoys the benefits and who bears (takes on) the costs.

BMM.HS.12.6 Determine how international trade affects individuals, organizations, the domestic economy, and other nations.

BMM.HS.12.6.a Explore comparative advantage among different countries.

BMM.HS.12.6.b Calculate exchange rates and explain the impact of the strength of the dollar on economic decisions.

BMM.HS.12.6.c Explain how current globalization trends and policies affect economic growth, labor markets, rights of citizens, the environment, and resource and income distribution in different nations.

BMM.HS.12.6.d Compare and contrast examples of specific goods and services that countries trade globally.

BMM.HS.12.6.e Analyze the impact on prices and quantities of various trade policies, both domestically and internationally.

MARKETING

COURSE DESCRIPTION

This course develops basic student understanding and skills in the functions of marketing. Emphasis is placed on the impact of marketing activities on the individual, business, and society. Topics include market analysis, marketing information management, target customer identification, the development of marketing-mix strategies, and an in-depth look at the selling process.

STANDARDS AND INDICATORS:

BMM.HS.19.1 Recognize the customer-oriented nature of marketing and analyze the impact of marketing activities on the individual, business, and society.

- BMM.HS.19.1.a Describe marketing functions and related activities.
- BMM.HS.19.1.b Distinguish between economic goods and services.
- BMM.HS.19.1.c Explain the principles of supply and demand.
- BMM.HS.19.1.d Determine economic utilities created by business activities.
- BMM.HS.19.1.e Explain the concept of competition.
- BMM.HS.19.1.f Identify employment opportunities in marketing.

BMM.HS.19.2 Identify marketing-information management strategies to understand its nature and scope.

- BMM.HS.19.2.a Identify the need for marketing data used to monitor marketing decision making.
- BMM.HS.19.2.b Explain the role of ethics in marketing information management.
- BMM.HS.19.2.c Discuss the nature of data mining.
- BMM.HS.19.2.d Describe the use of technology in the marketing-information management function.
- BMM.HS.19.2.e Describe the regulation of marketing-information management.

MARKETING (cont.)

BMM.HS.19.3 Apply the concepts and marketing strategies utilized to determine and target a select market.

BMM.HS.19.3.a Analyze and describe the importance of each of the components of the marketing mix.

BMM.HS.19.3.b Explain factors that influence customer/client/business buying behavior.

BMM.HS.19.3.c Analyze customer's rational and emotional buying motives and decisions.

BMM.HS.19.3.d Select target market appropriate for product/business to obtain the best return on marketing investment (ROMI).

BMM.HS.19.3.e Explain the concept of market and market identification.

BMM.HS.19.3.f Identify strategies utilized in the elements of market segmentation.

BMM.HS.19.4 Identify the concepts and actions needed to determine client needs and wants and respond through planned, personalized communication that influences purchase decisions and enhances future business opportunities.

BMM.HS.19.4.a Explain the nature and scope of the selling function.

BMM.HS.19.4.b Explain the role of customer service as a component of selling relationships for building a clientele.

BMM.HS.19.4.c Utilize sales processes and techniques to determine and satisfy customer needs.

BMM.HS.19.4.d Acquire product knowledge to communicate product benefits and to ensure appropriateness of product for the customer.

BMM.HS.19.4.e Explain legal and ethical considerations in selling.

MARKETING MANAGEMENT

Course Description

Marketing Management furthers student understanding and skills of the marketing functions and strategies including pricing, product/service management, channel management, promotion, and marketing-information management.

Standards and Indicators:

BMM.HS.20.1 Analyze the concepts and strategies utilized in determining and adjusting prices to maximize return and meet customers' perceptions of value.

- BMM.HS.20.1.a Explain the nature and scope of the pricing function.
- BMM.HS.20.1.b Explain factors affecting pricing decisions.
- BMM.HS.20.1.c Describe the ethical and legal considerations for pricing.
- BMM.HS.20.1.d Explain the use of technology in the pricing function.

BMM.HS.20.2 Identify and assess the concepts and processes needed to obtain, develop, maintain, and/or improve a product or service mix in response to market opportunities and to build the brand for the organization.

- BMM.HS.20.2.a Identify product/service management concepts to understand its nature and scope.
- BMM.HS.20.2.b Generate product ideas to contribute to ongoing business success.
- BMM.HS.20.2.c Apply quality assurances to enhance product/service offerings (i.e. customer service, warranties, guarantees, etc).
- BMM.HS.20.2.d Employ product-mix strategies to meet customer expectations.
- BMM.HS.20.2.e Determine ways to position a company to acquire a desired business image.
- BMM.HS.20.2.f Determine ways to position products/services to acquire desired business image.

MARKETING MANAGEMENT (cont.)

BMM.HS.20.3 Assess channel management strategies and its role in marketing.

BMM.HS.20.3.a Explain the nature and scope of channel management.

BMM.HS.20.3.b Explain the nature of channels of distribution.

BMM.HS.20.3.c Describe the use of technology in the channel management function.

BMM.HS.20.3.d Describe the ethical and legal considerations for channel management.

BMM.HS.20.4 Investigate the nature and scope of promotion.

BMM.HS.20.4.a Explain the role of promotion as a marketing function.

BMM.HS.20.4.b Examine the types of promotion (i.e., institutional, product).

BMM.HS.20.4.c Identify the elements of the promotional mix.

BMM.HS.20.4.d Demonstrate an understanding of promotional channels used to communicate with targeted audiences.

BMM.HS.20.4.e Identify and describe the types of advertising media.

BMM.HS.20.5 Identify marketing-information management strategies and analyze the role of marketing research in decision-making.

BMM.HS.20.5.a Describe the need for marketing data.

BMM.HS.20.5.b Describe options businesses use to obtain marketing research data (i.e., primary and secondary research).

BMM.HS.20.5.c Describe data-collection methods (e.g., observations, mail, diaries, telephone, Internet, discussion groups, interviews, scanners, tracking tools).

BMM.HS.20.5.d Analyze data monitored for marketing decision making.

BMM.HS.20.5.e Describe the regulations and ethical implications of marketing-information management.

ADVANCED MARKETING

Course Description

This course is an expansion and application of previous marketing studies with an emphasis on learning to develop responsive marketing strategies that meet customer needs. Students will focus on organization and society where they will develop a marketing plan. Topics include market research, product development, promotion, channel management, and pricing.

Standards and Indicators:

BMM.HS.5.1 Analyze marketing, the marketing concept, and marketing management.

BMM.HS.5.1.a	Define the role of marketing in organizations.
BMM.HS.5.1.b	Describe how marketers create value for a product or service.
BMM.HS.5.1.c	Analyze the environment in which firms operate to develop effective marketing strategies and decisions.
BMM.HS.5.1.d	Select strategies to obtain the best return on marketing investment (ROMI).
BMM.HS.5.1.e	Evaluate marketing mix strategies in response to market opportunities and customer expectations.

BMM.HS.5.2 Analyze methods of information gathering and investigate research techniques.

BMM.HS.5.2.a	Describe the nature of marketing research.
BMM.HS.5.2.b	Investigate qualitative and quantitative research sources.
BMM.HS.5.2.c	Select and apply methods of data collection (e.g., observations, surveys, discussion forums, scanners).
BMM.HS.5.2.d	Interpret marketing information and/or data mining to test hypotheses and/or resolve issues.

ADVANCED MARKETING (cont.)

BMM.HS.5.3 Identify market segments and positioning strategies.

BMM.HS.5.3.a Identify market segmentation strategies (e.g., demographics, geographics, psychographics, and behaviors).

BMM.HS.5.3.b Analyze the elements of the marketing mix, their interrelationships, how they are used in the marketing process, and their role in positioning.

BMM.HS.5.3.c Recommend the positioning strategy that communicates the firm's or the product's value proposition.

BMM.HS.5.3.d Describe the impact of consumer differences (e.g., life stages, benefits sought, usage rate, brand loyalty, and socio-economic characteristics) on buying decisions.

BMM.HS.5.4 Evaluate marketing mix strategies.

BMM.HS.5.4.a Develop marketing mix strategies that focus on meeting customer needs and wants.

BMM.HS.5.4.b Assess current product and service strategies to determine growth strategy (e.g., market penetration, market development, product development, diversification).

BMM.HS.5.4.c Identify factors that drive channel management design (e.g., Internet, Social Media, competitive advantage).

BMM.HS.5.4.d Distinguish concepts and strategies utilized in determining and adjusting prices to maximize return and meet customers' perception of value.

BMM.HS.5.4.e Research, analyze, and recommend promotional goals and strategies as they relate to profitability and/or effectiveness in reaching the target market.

BMM.HS.5.5 Demonstrate the importance of an effective marketing plan.

BMM.HS.5.5.a Apply project management competencies in working with a viable business in the creation of a marketing plan.

BMM.HS.5.5.b Analyze current marketing strategies utilized by business.

BMM.HS.5.5.c Initiate a marketing plan by identifying target market, conducting market analysis, and reviewing SWOT analysis.

BMM.HS.5.5.d Develop marketing strategies to position and/or reposition business effectively.

BMM.HS.5.5.e Access cost effectiveness of recommended marketing strategies.

BMM.HS.5.5.f Monitor and evaluate performance of marketing plan.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS (HSE)

COURSE DESCRIPTION

This introductory course provides students with foundational knowledge and skills in food preparation and nutrition planning. Topics covered include career exploration, global food systems, six essential nutrients, dietary recommendations, kitchen and food safety and sanitation, food preparation skills, and meal planning concepts.

STANDARDS AND INDICATORS:

HSE.HS.21.1 Apply skills to meet career goals within the food, nutrition, and culinary industries.

HSE.HS.21.1.a	Demonstrate working as a member of a diverse team.
HSE.HS.21.1.b	Demonstrate professional practices required in the workplace.
HSE.HS.21.1.c	Summarize roles, responsibilities, education, training, and credentialing requirements for careers within the food, nutrition, and culinary industries.
HSE.HS.21.1.d	Compare and contrast personal strengths, talents, interests, and passions to the skills and traits required of the workplace.

HSE.HS.21.2 Analyze U.S. and global food systems and their impact on personal health.

HSE.HS.21.2.a	Compare and contrast definitions of health and wellness.
HSE.HS.21.2.b	Analyze farm to table for a variety of food products grown locally and globally.
HSE.HS.21.2.c	Identify issues surrounding global production of food and how sustainability and conservation practices are connected.

HSE.HS.21.3 Analyze the six essential nutrients and their purposes in the body.

HSE.HS.21.3.a	Identify key bodily functions of the six essential nutrients and the components of each.
HSE.HS.21.3.b	Summarize the digestion, absorption, and metabolic processes associated with the use of nutrients in the digestive system.
HSE.HS.21.3.c	Identify the nutrient density of a variety of foods for each of the nutrients.
HSE.HS.21.3.d	Interpret the impact and effects of over or underconsumption of each nutrient.
HSE.HS.21.3.e	Explain the concept of calories and energy density of foods.
HSE.HS.21.3.f	Apply nutrition mathematical concepts to calculate energy from nutrients and the energy composition of a food item.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS (cont.)

HSE.HS.21.4 Integrate current dietary recommendations and guidelines to plan and analyze a healthy diet.

HSE.HS.21.4.a Recognize reliable sources of nutrition information (e.g., Dietary Reference Intakes, Dietary Guidelines, MyPlate model, food labels, etc.).

HSE.HS.21.4.b Compare and contrast personal eating habits to current recommendations for a healthy diet.

HSE.HS.21.4.c Apply current dietary recommendations and guidelines to meal planning.

HSE.HS.21.4.d Identify package labeling components.

HSE.HS.21.4.e Analyze the Nutrition Facts label to determine nutrient contributions of a variety of foods.

HSE.HS.21.5 Demonstrate effective food and kitchen safety and sanitation procedures.

HSE.HS.21.5.a Identify microorganisms which are related to food spoilage and foodborne illnesses.

HSE.HS.21.5.b Apply proper personal hygiene, health habits, and industry-standard apparel.

HSE.HS.21.5.c Sequence the requirements for proper receiving and storage of prepared foods and identify signs of food spoilage and contamination (e.g., FIFO - first in first out).

HSE.HS.21.5.d Identify the critical control points and the Temperature Danger Zone during all food handling processes as a method for minimizing the risk of foodborne illness (HACCP system).

HSE.HS.21.5.e Demonstrate kitchen safety practices to prevent accidents (i.e., slips, burns, fires, shock, cuts, equipment accidents, poisoning, etc.).

HSE.HS.21.5.f Implement a safety and sanitation inspection and identify modifications necessary for compliance with standards.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS (cont.)

HSE.HS.21.6 Demonstrate foundational food preparation techniques.

HSE.HS.21.6.a Demonstrate foundational culinary techniques (measuring, knife skills, folding, creaming) and correct use of kitchen equipment.

HSE.HS.21.6.b Demonstrate mise en place.

HSE.HS.21.6.c Demonstrate proper scaling techniques to convert recipes to yield smaller and larger quantities.

HSE.HS.21.6.d Apply the fundamentals of time, temperature, and cooking methods (dry, moist, combination) to cooking, cooling, reheating, and holding a variety of foods.

HSE.HS.21.6.e Demonstrate the preparation techniques for common essential nutrient-dense food sources (fruits, vegetables, proteins, carbohydrates, dairy products).

HSE.HS.21.6.f Label and store fresh and finished food products appropriately to reduce spoilage.

HSE.HS.21.7 Create a meal plan based on the dietary recommendations for individuals and families across the lifespan.

HSE.HS.21.7.a Identify food purchasing strategies used by consumers (e.g., store layout, comparison shopping, etc.).

HSE.HS.21.7.b Develop a market order and time management plan.

HSE.HS.21.7.c Identify the categories of a menu (e.g., appetizers, sandwiches, entrees, etc).

HSE.HS.21.7.d Apply recommended portion sizes to food preparation and serving.

HSE.HS.21.7.e Recognize and make dietary modifications for special dietary needs.

CULINARY SKILLS 1 (HSE)

COURSE DESCRIPTION

This intermediate course focuses on culinary skills development building on concepts from the introductory course. Topics covered include planning, preparing, and marketing a variety of menu items following industry standards. Technical skills will be developed through the use of professional tools and equipment.

STANDARDS AND INDICATORS:

BMM.HS.10.1 Apply efficiency in food and kitchen safety and sanitation procedures.

BMM.HS.10.1.a	Demonstrate best practices for purchasing, receiving, inventorying, and storage in the restaurant and food service industry.
BMM.HS.10.1.b	Describe the proper storage and use of cleaners and sanitizers and develop a cleaning schedule.
BMM.HS.10.1.c	Describe appropriate measures for the control of insects, rodents, and pests.
BMM.HS.10.1.d	Identify appropriate types, uses, and location of fire extinguishers & equipment in the food service area.
BMM.HS.10.1.e	Describe the role of regulatory agencies governing sanitation and food safety.

BMM.HS.10.2 Apply math concepts to food preparation, recipe, and menu development.

BMM.HS.10.2.a	Perform basic math functions using the baker's percentage and fraction factor.
BMM.HS.10.2.b	Calculate the cost of recipes.
BMM.HS.10.2.c	Demonstrate measurements using weight and volume.
BMM.HS.10.2.d	Convert recipes to yield smaller and larger quantities based on operational needs.

CULINARY SKILLS 1 (cont.)

BMM.HS.10.3 Apply menu planning principles based on standardized recipes to meet customer needs.

BMM.HS.10.3.a Apply menu planning principles to develop and modify menus.

BMM.HS.10.3.b Apply principles of measurement, portion control, conversions, food cost analysis and control, menu terminology, and menu pricing to menu planning.

BMM.HS.10.3.c Create professional menu item descriptions for a food product.

BMM.HS.10.3.d Develop a standardized recipe listing the ingredients and procedures in the order of which they are used.

BMM.HS.10.3.e Utilize weight and measurement tools in food preparation and portion control.

BMM.HS.10.4 Demonstrate fundamental procedures within the restaurant and food service industry.

BMM.HS.10.4.a Summarize the components of industry-standard kitchen facilities, planning, and layout principles.

BMM.HS.10.4.b Demonstrate proper planning and time management to the overall operation of the restaurant facility.

BMM.HS.10.4.c Identify front of the house and back of the house principles to facility operations and management.

BMM.HS.10.4.d Identify regulations for inspecting and grading ingredients.

BMM.HS.10.4.e Prepare requisitions for food, equipment, and supplies to meet production requirements.

CULINARY SKILLS 1 (cont.)

BMM.HS.10.5 Demonstrate technical food preparation techniques.

BMM.HS.10.5.a Identify and describe the function of common ingredients used in cooking and baking (including but not limited to: fats, flours, sugars, eggs, dairy, grains, legumes, fruits, vegetables, meats, seafood, etc.).

BMM.HS.10.5.b Identify the characteristics of herbs and spices and incorporate them to enhance flavor.

BMM.HS.10.5.c Prepare salads, vinaigrettes, emulsions, and other common dips.

BMM.HS.10.5.d Prepare sandwiches, pizza, stocks, soups and sauces.

BMM.HS.10.5.e Prepare dessert sauces, baked goods, and pastries.

BMM.HS.10.5.f Demonstrate professional plating, garnishing, and food presentation techniques.

BMM.HS.10.6 Examine effective management principles within the restaurant and food service industry.

BMM.HS.10.6.a Identify the components of a restaurant and food service management plan.

BMM.HS.10.6.b Explain the purpose and components of a marketing plan.

BMM.HS.10.6.c Identify the areas of risk management and legal liability within the food service industry.

BMM.HS.10.6.d Explain principles of customer service in the restaurant and food service industry, with an emphasis on community focused customer service.

BMM.HS.10.6.e Describe the opportunities for entrepreneurship in the restaurant and food service industries.

CULINARY SKILLS 2 (HSE)

COURSE DESCRIPTION

This capstone course focuses on the application of culinary skills building on concepts from the introductory and intermediate courses. Topics covered include restaurant marketing, menu management, cost control, breakfast cookery, fruits and vegetables, potatoes/grains/pastas, meat/poultry/seafood, plating/garnishing, and global cuisines. Developing a restaurant business management plan and implementing food service management principles are also covered.

STANDARDS AND INDICATORS:

BMM.HS.11.1 Demonstrate food and kitchen safety and sanitation procedures.

- BMM.HS.11.1.a Recognize sanitary and safety design and construction features of food production equipment and facilities (e.g., NSF, UL, OSHA, ADA, etc.).
- BMM.HS.11.1.b Explain Material Safety Data Sheets (MSDS) and the requirements for handling hazardous materials.
- BMM.HS.11.1.c Outline a safety management program and emergency policies.

BMM.HS.11.2 Apply math concepts to food preparation, recipe, and menu development.

- BMM.HS.11.2.a Calculate the cost of recipes to maximize profitability.
- BMM.HS.11.2.b Convert recipes between the English and metric system.
- BMM.HS.11.2.c Convert recipes to yield smaller and larger quantities to maximize resources.

BMM.HS.11.3 Demonstrate technical food preparation techniques.

- BMM.HS.11.3.a Prepare breakfast foods (e.g., pancakes, crêpes, waffles, French toast, breakfast meats, etc.).
- BMM.HS.11.3.b Prepare fruits and vegetables.
- BMM.HS.11.3.c Prepare potatoes, grains, legumes, and pastas.
- BMM.HS.11.3.d Prepare meats, poultry, and seafood.
- BMM.HS.11.3.e Prepare various global cuisines.

CULINARY SKILLS 2 (cont.)

BMM.HS.11.4 Implement food service management principles.

BMM.HS.11.4.a	Develop a business management and marketing plan for food service operations.
BMM.HS.11.4.b	Calculate profitability and target margins of a food product and/or entire menu.
BMM.HS.11.4.c	Interpret impact of costs incurred by a food service business.
BMM.HS.11.4.d	Develop a budget.
BMM.HS.11.4.e	Analyze a profit-and-loss report/income statement verifying invoices sent and received.
BMM.HS.11.4.f	Record performance of menu items to analyze sales and determine menu revisions.

BAKING AND PASTRY (HSE)

Course Description

This capstone course focuses on developing the skills used to plan, prepare, and market pastries and baked goods building on concepts from the introductory and intermediate courses. Topics covered include understanding the function of ingredients, scaling recipes, measurement systems, and baking and pastry management principles, including entrepreneurship.

Standards and Indicators:

BMM.HS.6.1 Demonstrate foundational food preparation skills used in the baking and pastry industry.

BMM.HS.6.1.a Identify and describe the function of common ingredients used in baking (including but not limited to: leavening agents, flours, sugars, fats, eggs, dairy, gluten alternatives, thickening agents, dough conditioners, and coloring and flavoring agents).

BMM.HS.6.1.b Identify and describe physical, chemical, and biological leaveners.

BMM.HS.6.1.c Describe proper gluten development in relationship to product outcomes.

BMM.HS.6.1.d Identify specific ingredients and/or substitutions appropriate to method and desired product outcome.

BMM.HS.6.1.e Demonstrate foundational baking and pastry techniques (measuring, mixing, folding, creaming, whisking, kneading, proofing, shaping, portioning etc.).

BMM.HS.6.2 Demonstrate the preparation of various doughs, batters, and pastries.

BMM.HS.6.2.a Explain the strengthening or weakening effect of ingredients in the production of doughs and batters.

BMM.HS.6.2.b Compare and contrast yeast and laminate dough types and quick breads (muffin and biscuit dough types) and related methods and processes.

BMM.HS.6.2.c Prepare yeast and laminate dough types and quick breads (muffin and biscuit dough types).

BMM.HS.6.2.d Prepare Pâte à Choux and products derived from it.

BMM.HS.6.2.e Prepare pies, including various dough types and related methods and processes and fruit pie filling methods.

BAKING AND PASTRY (cont.)

BMM.HS.6.3 Demonstrate the ability to prepare various cakes, cookies, and other baked goods.

BMM.HS.6.3.a Demonstrate creaming and two-stage methods as they relate to cakes, cookies, brownies, and short pastry dough.

BMM.HS.6.3.b Demonstrate egg foaming methods as it relates to sponge, chiffon, souffles, génoise, angel food, meringues, and mousse.

BMM.HS.6.3.c Demonstrate the use of alternative foams (aquafaba, dolgona).

BMM.HS.6.3.d Prepare various types of frosting, icing, and glaze.

BMM.HS.6.3.e Prepare various custard types.

BMM.HS.6.3.f Demonstrate various cake decorating techniques including: royal icing, rolled fondant, gum paste, airbrush designs and/or edible images.

BMM.HS.6.4 Implement baking and pastry industry management principles.

BMM.HS.6.4.a Develop a budget, business management and marketing plan for baking and pastry operations.

BMM.HS.6.4.b Calculate profitability and target margins of a baked good or pastry product.

BMM.HS.6.4.c Interpret impact of costs incurred by a baking and pastry business.

BMM.HS.6.4.d Analyze a profit-and-loss report/income statement verifying invoices sent and received.

BMM.HS.6.4.e Describe the opportunities for entrepreneurship in the baking and pastry industry.

EVENT MANAGEMENT WITH WORK-BASED LEARNING (HSE)

Course Description

This course focuses on the evolving hospitality industry building on concepts from the introductory and intermediate courses. Topics covered include many facets of event planning such as: career opportunities, step-by-step planning, food/beverage operations, and marketing strategies. Through this capstone course, knowledge and skills will be applied within a structured work-based learning experience. The focus of the experience will be to plan and carry out events that may take place as part of class projects or within a business setting.

Standards and Indicators:

BMM.HS.14.1 Describe the foundational knowledge pertaining to event planning and management.

BMM.HS.14.1.a	Determine why events and meetings take place (e.g., celebrations, fundraising, milestones, etc).
BMM.HS.14.1.b	Compare and contrast where events and meetings take place (e.g., resorts, hotels, backyards, fairgrounds, educational institutions, etc).
BMM.HS.14.1.c	Identify different types of events and meetings (e.g., special/social and educational/business).
BMM.HS.14.1.d	Describe legal issues affecting the event management industry.
BMM.HS.14.1.e	Summarize the use of technology as a means of planning, facilitating, and promoting an event (e.g., event-specific software, mobile apps, registration, live streaming, etc).

BMM.HS.14.2 Evaluate career development and employability skills required for event management.

BMM.HS.14.2.a	Summarize career opportunities and growth potential in event planning and management (e.g., corporate or private event planner, independent contractor, vendor, hotel staff, etc).
BMM.HS.14.2.b	Identify education and training requirements for careers in event and entertainment management.
BMM.HS.14.2.c	Demonstrate skills needed in the workplace (e.g., effective communication, successful problem solving, effective customer service skills, etc.).
BMM.HS.14.2.d	Investigate current trends in the event and entertainment industry.

EVENT MANAGEMENT WITH WORK-BASED LEARNING (cont.)

BMM.HS.14.3 Analyze the overall design of event planning and management.

- BMM.HS.14.3.a Determine the vision, goals, and objectives of an event.
- BMM.HS.14.3.b Appraise client needs, wants, and expectations.
- BMM.HS.14.3.c Analyze the factors that determine a budget/financial strategy for an event.
- BMM.HS.14.3.d Determine event logistics (e.g., food and beverage, accommodations, site selection, staffing, theme, safety/security, etc.).
- BMM.HS.14.3.e Identify key components of an event timeline/itinerary.

BMM.HS.14.4 Analyze food and beverage operations in event management.

- BMM.HS.14.4.a Examine food and beverage operations in various contexts.
- BMM.HS.14.4.b Describe the equipment and supplies used in food and beverage operations.
- BMM.HS.14.4.c Explain the importance of proper sanitation in food and beverage operations.
- BMM.HS.14.4.d Compare costs, pricing, market demands, and marketing strategies to manage profitability in food and beverage operations.

BMM.HS.14.5 Analyze effective marketing strategies for the event.

- BMM.HS.14.5.a Describe the importance of each of the 4 P's of the marketing mix for an event.
- BMM.HS.14.5.b Identify promotional strategies for attracting targeted audiences (e.g., advertising, public relations, personal selling, etc.).
- BMM.HS.14.5.c Analyze strategies used to determine and adjust prices in order to maximize return and maintain value.
- BMM.HS.14.5.d Implement channel activities to minimize costs and to determine distribution strategies.

BMM.HS.14.6 Apply event management skills in a work environment.

- BMM.HS.14.6.a Implement continual appraisal of performance and identify strengths and weaknesses
- BMM.HS.14.6.b Evaluate the work-based learning experience.
- BMM.HS.14.6.c Apply emotional intelligence to foster self-understanding and enhance relationships.
- BMM.HS.14.6.d Apply event management concepts and principles to plan and carry out an event.

INTRODUCTION TO HOSPITALITY AND EVENT PLANNING

Course Description

This introductory course is focused on exploring the hospitality and event planning industry. Topics covered include safety and security, sustainable practices, customer service, management techniques and emerging trends in the hospitality and event planning industry.

Standards and Indicators:

BMM.HS.17.1 Analyze the major aspects of the hospitality and event planning industry and the industry's role in local, state, national, and global economies.

BMM.HS.17.1.a Define and compare core elements of the hospitality and event planning industry (e.g. lodging, travel, and tourism; event planning; theme parks, attractions, and exhibitions).

BMM.HS.17.1.b Determine the relationship of amusements and recreation to travel and tourism.

BMM.HS.17.1.c Analyze trends and their impact on hospitality and event planning practices (e.g., economy, green movement, sports, etc.).

BMM.HS.17.1.d Analyze the impact and contributions of various segments of the industry on economies, cultures, and the environment.

BMM.HS.17.1.e Compare and contrast the relationship between industry trends and economic trends.

BMM.HS.17.2 Analyze career opportunities within the hospitality and event planning industry.

BMM.HS.17.2.a Explain the roles and functions of individuals engaged in hospitality and event planning careers.

BMM.HS.17.2.b Identify opportunities for employment in hospitality and event planning.

BMM.HS.17.2.c Describe the working conditions of various careers in the hospitality and event planning industry.

BMM.HS.17.2.d Summarize education and training requirements for careers in hospitality and event planning.

BMM.HS.17.2.e Compare the relationship between the hospitality and event planning industry.

INTRODUCTION TO HOSPITALITY AND EVENT PLANNING (cont.)

BMM.HS.17.3 Analyze safety and security practices in hospitality and event planning.

BMM.HS.17.3.a Explain the importance of safety and security related to the hospitality and event planning industries.

BMM.HS.17.3.b Summarize evacuation plans and emergency procedures.

BMM.HS.17.3.c Describe personal safety to avoid injury or accidents.

BMM.HS.17.3.d Explain the impact of laws and regulations that affect accommodations and practices (e.g., Americans with Disabilities Act, wage and hour laws, tenant status, accommodation of minors, etc.).

BMM.HS.17.4 Apply concepts of quality service to ensure customer satisfaction.

BMM.HS.17.4.a Summarize industry standards for service that meet cultural and geographic expectations of guests or customers.

BMM.HS.17.4.b Describe how employee dispositions can impact customer satisfaction.

BMM.HS.17.4.c Compare the effects of customer relations on success of the hospitality and event planning industries.

BMM.HS.17.4.d Identify the needs, desires, and interests of guests in order to exceed their expectations by implementing total quality management practices (TQM).

BMM.HS.17.4.e Recognize common guest complaints and the service solutions for preventing or resolving them.

INTRODUCTION TO HOSPITALITY AND EVENT PLANNING (cont.)

BMM.HS.17.5 Analyze effective management principles within the hospitality and event planning industry.

BMM.HS.17.5.a Explain the relationship between facilities management and profit and loss, including the costs of resource consumption, breakage, theft, supplies use, and decisions for repairs or replacement.

BMM.HS.17.5.b Explain procedures for handling cash and noncash transactions (e.g., balancing cash, credit cards, personal checks, identifying counterfeit currency, etc.).

BMM.HS.17.5.c Explain the role of individual departments as they impact the business as a whole.

BMM.HS.17.5.d Describe the relationship between facility and equipment management and profit and loss (e.g., costs of resource consumption, breakage, theft, decisions for repairs or replacement, etc.).

BMM.HS.17.5.e Summarize procedures for maintaining inventories, requisitioning equipment and tools, and storing and restocking supplies.

BMM.HS.17.6 Plan and carry out an event.

BMM.HS.17.6.a Describe various types of event planning and managing services within the industry (e.g., fundraiser, sporting event, special occasion/celebration, concert, etc.).

BMM.HS.17.6.b Describe the importance of establishing business relationships with a variety of locations, food suppliers, and other vendors.

BMM.HS.17.6.c Demonstrate the essential procedures for promoting, publicizing, and evaluating an event.

BMM.HS.17.6.d Develop schedules, registration tools, event materials, and programs.

BMM.HS.17.6.e Demonstrate procedures for setting up facilities, equipment, and supplies.

BMM.HS.17.6.f Outline the process for planning events based on specific themes, budgets, agendas, space and security needs.

MARKETING MANAGEMENT

Course Description

Marketing Management furthers student understanding and skills of the marketing functions and strategies including pricing, product/service management, channel management, promotion, and marketing-information management.

Standards and Indicators:

BMM.HS.20.1 Analyze the concepts and strategies utilized in determining and adjusting prices to maximize return and meet customers' perceptions of value.

- BMM.HS.20.1.a Explain the nature and scope of the pricing function.
- BMM.HS.20.1.b Explain factors affecting pricing decisions.
- BMM.HS.20.1.c Describe the ethical and legal considerations for pricing.
- BMM.HS.20.1.d Explain the use of technology in the pricing function.

BMM.HS.20.2 Identify and assess the concepts and processes needed to obtain, develop, maintain, and/or improve a product or service mix in response to market opportunities and to build the brand for the organization.

- BMM.HS.20.2.a Identify product/service management concepts to understand its nature and scope.
- BMM.HS.20.2.b Generate product ideas to contribute to ongoing business success.
- BMM.HS.20.2.c Apply quality assurances to enhance product/service offerings (i.e. customer service, warranties, guarantees, etc).
- BMM.HS.20.2.d Employ product-mix strategies to meet customer expectations.
- BMM.HS.20.2.e Determine ways to position a company to acquire a desired business image.
- BMM.HS.20.2.f Determine ways to position products/services to acquire desired business image.

MARKETING MANAGEMENT (cont.)

BMM.HS.20.3 Assess channel management strategies and its role in marketing.

- BMM.HS.20.3.a Explain the nature and scope of channel management.
- BMM.HS.20.3.b Explain the nature of channels of distribution.
- BMM.HS.20.3.c Describe the use of technology in the channel management function.
- BMM.HS.20.3.d Describe the ethical and legal considerations for channel management.

BMM.HS.20.4 Investigate the nature and scope of promotion.

- BMM.HS.20.4.a Explain the role of promotion as a marketing function.
- BMM.HS.20.4.b Examine the types of promotion (i.e., institutional, product).
- BMM.HS.20.4.c Identify the elements of the promotional mix.
- BMM.HS.20.4.d Demonstrate an understanding of promotional channels used to communicate with targeted audiences.
- BMM.HS.20.4.e Identify and describe the types of advertising media.

BMM.HS.20.5 Identify marketing-information management strategies and analyze the role of marketing research in decision-making.

- BMM.HS.20.5.a Describe the need for marketing data.
- BMM.HS.20.5.b Describe options businesses use to obtain marketing research data (i.e., primary and secondary research).
- BMM.HS.20.5.c Describe data-collection methods (e.g., observations, mail, diaries, telephone, Internet, discussion groups, interviews, scanners, tracking tools).
- BMM.HS.20.5.d Analyze data monitored for marketing decision making.
- BMM.HS.20.5.e Describe the regulations and ethical implications of marketing-information management.

TRAVEL AND TOURISM

Course Description

This intermediate course focuses on marketing and management principles within the travel and tourism industry building on concepts from the introductory course. Topics in this course include a history, the key sectors, specific travel logistics, marketing strategies, and current trends in the travel and tourism industry.

Standards and Indicators:

BMM.HS.23.1 Analyze the history and development of the travel and tourism industry.

BMM.HS.23.1.a	Apply the terms, concepts, and practices within the travel and tourism industry.
BMM.HS.23.1.b	Describe the evolution of travel and tourism.
BMM.HS.23.1.c	Differentiate how reasons for travel have changed over time.
BMM.HS.23.1.d	Discuss the different kinds of consumers and what satisfies their travel needs.

BMM.HS.23.2 Analyze the key sectors of the travel and tourism industry.

BMM.HS.23.2.a	Describe geographical locations, time zones, and seasonal influences that impact travel and tourism.
BMM.HS.23.2.b	Explore factors influencing destination decisions.
BMM.HS.23.2.c	Analyze the success of the top tourism destinations in the world.
BMM.HS.23.2.d	Explain the role of Destination Management Organizations (DMOs) including Convention and Visitors Bureaus (CVBs) in the travel and tourism industry.

TRAVEL AND TOURISM (cont.)

BMM.HS.23.3 Analyze different modes of transportation, types of tour operators, lodging providers, and travel facilitators.

- BMM.HS.23.3.a Compare and contrast different modes of transportation.
- BMM.HS.23.3.b Describe the pricing structure of various kinds of tours and tour packages.
- BMM.HS.23.3.c Differentiate among the types of lodging accommodations and guest amenities.
- BMM.HS.23.3.d Describe the decision-making process when designing a travel experience.
- BMM.HS.23.3.e Explain the role of travel facilitators in the travel experience.

BMM.HS.23.4 Evaluate marketing and sales information for travel and tourism management.

- BMM.HS.23.4.a Utilize information from market segmentation (e.g., demographics, geographics, psychographics, etc.) to guide product and service decisions.
- BMM.HS.23.4.b Analyze each of the 4 P's of the marketing mix and how they impact decisions in the travel and tourism industry.
- BMM.HS.23.4.c Assess joint marketing efforts in the travel and tourism industry.
- BMM.HS.23.4.d Identify the features and benefits of travel and tourism products and services.
- BMM.HS.23.4.e Examine types of marketing promotions in travel and tourism.

BMM.HS.23.5 Evaluate the current trends in the travel and tourism industry.

- BMM.HS.23.5.a Investigate current trends in travel and tourism.
- BMM.HS.23.5.b Analyze the social, cultural, economic, and environmental impacts of the travel and tourism industry.
- BMM.HS.23.5.c Analyze the impact of technological developments in the travel and tourism industry.
- BMM.HS.23.5.d Examine career opportunities available in travel and tourism.

ENTREPRENEURSHIP

COURSE DESCRIPTION

Entrepreneurship is a course with emphasis on the evaluation of the business skills and commitment necessary to successfully operate an entrepreneurial venture and review the challenges and rewards of entrepreneurship. The role of entrepreneurial businesses in the United States and the impact on the national and global economy will be explored.

STANDARDS AND INDICATORS:

BMM.HS.13.1 Identify characteristics and skills of entrepreneurs.

BMM.HS.13.1.a	Analyze personal strengths, skills, and talents necessary to be an entrepreneur.
BMM.HS.13.1.b	Identify responsible behavior, attitude, and leadership ability.
BMM.HS.13.1.c	Demonstrate problem-solving skills.
BMM.HS.13.1.d	Describe the history and development of successful and non-successful entrepreneurial ventures.
BMM.HS.13.1.e	Explore career opportunities in entrepreneurship.

BMM.HS.13.2 Evaluate business ownership as related to entrepreneurship.

BMM.HS.13.2.a	Identify and compare advantages and disadvantages of various forms of business ownership.
BMM.HS.13.2.b	Explain the legal and ethical issues affecting businesses.
BMM.HS.13.2.c	Analyze the advantages and disadvantages of methods of entering an entrepreneurial venture.

ENTREPRENEURSHIP (cont.)

BMM.HS.13.3 Analyze the management, financial, marketing, and legal skills necessary to successfully operate and grow an entrepreneurial venture.

BMM.HS.13.3.a	Describe the importance of strategic management to a small entrepreneurial business.
BMM.HS.13.3.b	Develop vision, mission, goals, objectives, and policies for an entrepreneurial venture.
BMM.HS.13.3.c	Explain the importance of effective financial management in developing, growing, and sustaining an entrepreneurial venture.
BMM.HS.13.3.d	Develop a marketing plan and strategies to position the product and/or service in the target market.
BMM.HS.13.3.e	Identify the legal documents and financial records for business operations.
BMM.HS.13.3.f	Evaluate the venture idea utilizing the components of a business plan.

BMM.HS.13.4 Analyze the role of entrepreneurship in the global economy.

BMM.HS.13.4.a	Identify entrepreneurial venture opportunities in international trade.
BMM.HS.13.4.b	Analyze global issues and trends for entrepreneurial ventures.
BMM.HS.13.4.c	Determine the impact of cultural and social requirements on international trade.

EVENT MANAGEMENT WITH WORK-BASED LEARNING

Course Description

This course focuses on the evolving hospitality industry building on concepts from the introductory and intermediate courses. Topics covered include many facets of event planning such as: career opportunities, step-by-step planning, food/beverage operations, and marketing strategies. Through this capstone course, knowledge and skills will be applied within a structured work-based learning experience. The focus of the experience will be to plan and carry out events that may take place as part of class projects or within a business setting.

Standards and Indicators:

BMM.HS.14.1 Describe the foundational knowledge pertaining to event planning and management.

BMM.HS.14.1.a	Determine why events and meetings take place (e.g., celebrations, fundraising, milestones, etc).
BMM.HS.14.1.b	Compare and contrast where events and meetings take place (e.g., resorts, hotels, backyards, fairgrounds, educational institutions, etc).
BMM.HS.14.1.c	Identify different types of events and meetings (e.g., special/social and educational/business).
BMM.HS.14.1.d	Describe legal issues affecting the event management industry.
BMM.HS.14.1.e	Summarize the use of technology as a means of planning, facilitating, and promoting an event (e.g., event-specific software, mobile apps, registration, live streaming, etc).

BMM.HS.14.2 Evaluate career development and employability skills required for event management.

BMM.HS.14.2.a	Summarize career opportunities and growth potential in event planning and man agement (e.g., corporate or private event planner, independent contractor, vendor, hotel staff, etc).
BMM.HS.14.2.b	Identify education and training requirements for careers in event and entertainment management.
BMM.HS.14.2.c	Demonstrate skills needed in the workplace (e.g., effective communication, successful problem solving, effective customer service skills, etc.).
BMM.HS.14.2.d	Investigate current trends in the event and entertainment industry.

EVENT MANAGEMENT WITH WORK-BASED LEARNING (cont.)

BMM.HS.14.3 Analyze the overall design of event planning and management.

- BMM.HS.14.3.a Determine the vision, goals, and objectives of an event.
- BMM.HS.14.3.b Appraise client needs, wants, and expectations.
- BMM.HS.14.3.c Analyze the factors that determine a budget/financial strategy for an event.
- BMM.HS.14.3.d Determine event logistics (e.g., food and beverage, accommodations, site selection, staffing, theme, safety/security, etc.).
- BMM.HS.14.3.e Identify key components of an event timeline/itinerary.

BMM.HS.14.4 Analyze food and beverage operations in event management.

- BMM.HS.14.4.a Examine food and beverage operations in various contexts.
- BMM.HS.14.4.b Describe the equipment and supplies used in food and beverage operations.
- BMM.HS.14.4.c Explain the importance of proper sanitation in food and beverage operations.
- BMM.HS.14.4.d Compare costs, pricing, market demands, and marketing strategies to manage profitability in food and beverage operations.

BMM.HS.14.5 Analyze effective marketing strategies for the event.

- BMM.HS.14.5.a Describe the importance of each of the 4 P's of the marketing mix for an event.
- BMM.HS.14.5.b Identify promotional strategies for attracting targeted audiences (e.g., advertising, public relations, personal selling, etc.).
- BMM.HS.14.5.c Analyze strategies used to determine and adjust prices in order to maximize return and maintain value.
- BMM.HS.14.5.d Implement channel activities to minimize costs and to determine distribution strategies.

BMM.HS.14.6 Apply event management skills in a work environment.

- BMM.HS.14.6.a Implement continual appraisal of performance and identify strengths and weaknesses
- BMM.HS.14.6.b Evaluate the work-based learning experience.
- BMM.HS.14.6.c Apply emotional intelligence to foster self-understanding and enhance relationships.
- BMM.HS.14.6.d Apply event management concepts and principles to plan and carry out an event.

NEBRASKA CAREER AND TECHNICAL EDUCATION



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NEBRASKA DEPARTMENT OF EDUCATION

COMMUNICATION AND INFORMATION SYSTEMS

PROGRAM OF STUDY STANDARDS

COMMUNICATION ARTS

INFORMATION TECHNOLOGY

NEBRASKA CAREER AND TECHNICAL EDUCATION STATE MODEL PROGRAMS OF STUDY

CAREER FIELD OVERVIEW

The Communication and Information Systems Career Field Area provides opportunities for students to deepen their understanding of topics in areas such as computer science, information technology, e-commerce, advertising, public relations, commercial photography, journalism, graphic design, broadcasting, scriptwriting, radio/TV production, business technology applications, web design, interactive media, and networking.

PROGRAMS OF STUDY

Programs of Study are the primary delivery model for Career and Technical Education (CTE) in Nebraska. They include a sequence of courses which progresses in specificity and rigor and are updated regularly to align with Nebraska's workforce needs and economic development priorities. This document includes the programs of study and course-based standards for the Communication and Information Systems career field. These state model programs of study were developed to:

- Assist secondary schools in creating meaningful sequences of courses that adequately prepare individuals for seamless transitions to postsecondary education and careers eliminating duplication of coursework;
- Assist students in identifying appropriate courses for high school and postsecondary education that lead to their chosen career;
- Encourage collaboration between secondary and postsecondary education through curricular alignment;
- Offer opportunities for high-quality workplace experiences aligned to students' career interests;
- Promote the advancement of early postsecondary opportunities (including dual-credit courses) for all students; and
- Support postsecondary education options for students to further prepare them for successful transitions to their future careers.

Nebraska's programs of study are organized around Nebraska's CTE Model, which provides a way for students to explore the diversity of career options available to them.

NEBRASKA CAREER AND TECHNICAL EDUCATION MODEL

1 CORE ACADEMICS AND CAREER READINESS

At the center of the NCE Model is the expectation for all students to develop a solid academic core. The next ring identifies specific career readiness standards and practices that prepare students for success in postsecondary education as well as entrepreneurship/employment.

2 CAREER FIELDS

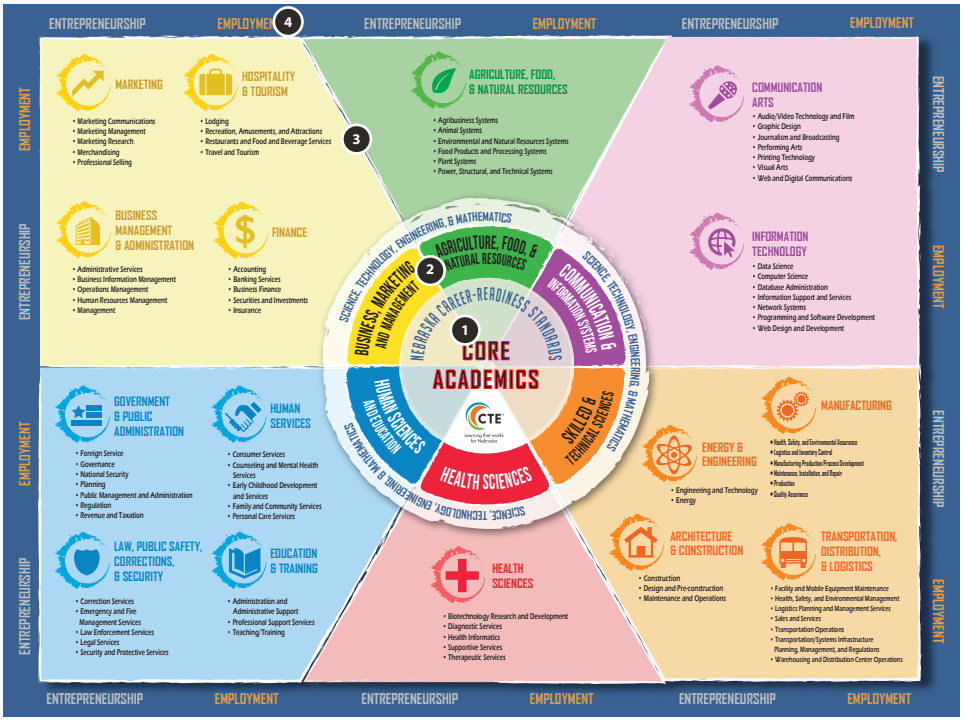
The six career fields represent broad sectors of the job market on which students may choose to focus.

3 CAREER CLUSTERS

Each career field is composed of career clusters radiating out from it. The clusters are more specific segments of the labor market. Each cluster is a grouping of careers that focus on similar subjects or similar skills. A basic understanding and exploration of each of the clusters will provide students with a solid foundation for career decision-making to conceptualize the entire world of work.

4 EMPLOYABILITY AND ENTREPRENEURSHIP

Career education provides the opportunity to gain the knowledge and skills for both employment and entrepreneurship. The reality for Nebraska and the United States is that entrepreneurship will help ensure economic growth and vitality. By infusing entrepreneurship competencies, career education is helping create the next generation of America's innovators and entrepreneurs.



The model is a visual map of "career fields" and "career clusters/pathways" and organizes the 16 National Career Clusters into six broad sectors of entrepreneurship and employment:

- Agriculture, Food and Natural Resources
- Business, Marketing and Management
- Communication and Information Systems
- Health Sciences
- Human Sciences and Education
- Skilled and Technical Sciences

These fields break down into more specific Career Clusters, Pathways and Occupational Specialties. The model provides a way for:

- Students to explore the diversity of career options available to them.
- Students to begin to prepare for their career with plans for secondary and post-secondary education.
- Schools to organize curriculum into Programs of Study that prepare students for opportunities in Nebraska's economy.

COURSE SEQUENCING

The courses within the State Model Program of Study are intended to be offered sequentially, to allow learners to build upon foundational knowledge and skills learned in introductory and intermediate courses and applied in more advanced capstone coursework. Non-duplicative sequences of courses ensure students transition to postsecondary education without duplication of classes and content. CTE enrollment data is collected at the course level. Students who participate and concentrate in CTE generally have more positive outcomes such as higher graduation rates along with postsecondary success.

Introductory Courses

Introductory courses set the foundation for a program of study by introducing students to broad foundational knowledge relative to an occupational area and career field.

Intermediate Courses

Intermediate courses build on the foundational knowledge of Introductory courses to further develop the academic, technical, and career readiness skills within a particular career field and occupational area.

Capstone Courses

Capstone courses are occupationally specific and further develop the necessary and required academic, technical, and career readiness skills needed for seamless transitions to postsecondary education and employment. Capstone courses often provide opportunities for students to earn postsecondary credit.

Levels of Participation

CTE Participant

A student who has earned one or more credits in any career and technical education program area.

CTE Concentrator

A secondary student who, in grades 9 through 12, has earned credit in at least two courses in a single career cluster program at the intermediate or capstone level.

State Model Programs of Study are coordinated, nonduplicative sequences of academic and technical content at the secondary and postsecondary levels that incorporate challenging State academic standards, address both academic and technical knowledge and skills, including Nebraska's Career Readiness Skills, are aligned with the needs of industries in Nebraska's economy, progress in specificity, have multiple entry and exit points that incorporate credentialing, and culminate in the attainment of a recognized postsecondary credential.

COURSE-BASED STANDARDS

Individual CTE courses, which make up the sequence of courses for Programs of Study, include content area standards and indicators to provide a framework for quality teaching and learning. While not required by state law, districts are encouraged to adopt these State Model Programs of Study and their related course-based standards. CTE State Model Programs of Study and course-based standards are revised on a five-year cycle to remain responsive to the rapid advances and needs of business and industry, help students explore a variety of postsecondary options and corresponding entrance requirements to help identify their next steps, and to align to changes in postsecondary programs.

Standards

At the highest level of generality, content area standards include a set of broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of students. They reflect long-term goals for learning.

Indicators

Under each standard are indicators, which further describe what a student must know and be able to do to meet the standard. Indicators are performance-based statements that provide educators with a clear understanding of the expected level of student learning and guidance. Indicators provide guidance for an assessment of student learning.

EXPANDED LEARNING OPPORTUNITIES

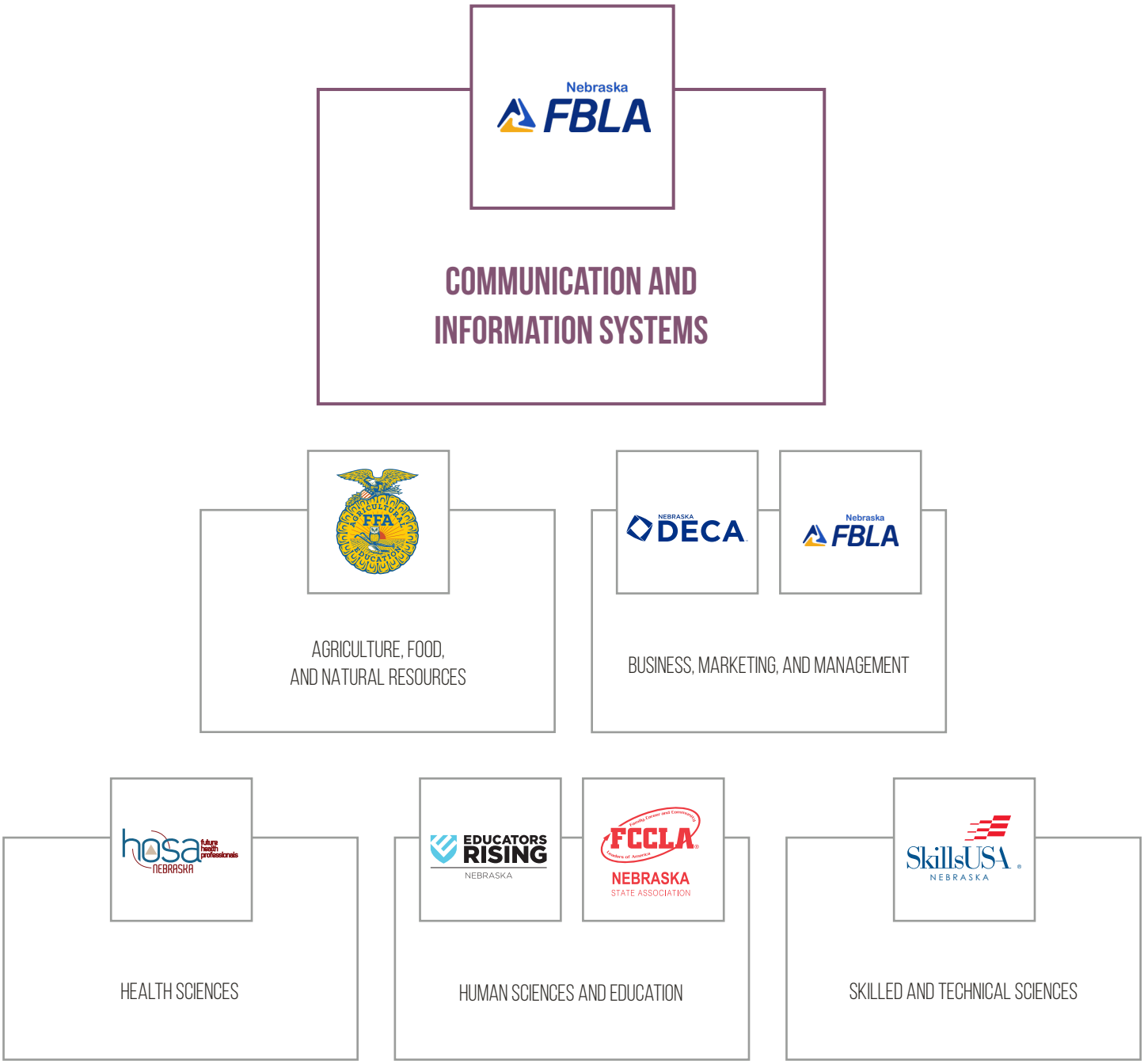
Expanded learning opportunities build on, support, and enhance learning within and outside of regular school programming. They are a critical component of Nebraska's educational landscape and should be intentionally supported to further develop students' college and career readiness. To signal aligned expanded learning opportunities, each Program of Study identifies additional areas where students may desire to personalize their program and take additional coursework or work-based learning that aligns with their interests. These expanded learning opportunities are not considered part of a Program of Study nor are they required, but rather a meaningful opportunity for students to continue to learn after completing the Program of Study sequence of courses within the context of their career interests. Along with aligned coursework, two prominent expanded learning opportunities include participating in Work-Based Learning or a Career and Technical Student Organization.

Work-Based Learning

Work-Based Learning (WBL) connects learners with employers to prepare them for success in an ever-changing workplace. WBL is a planned program of meaningful experiences related to the career interests of learners that enables them to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. WBL is learning through work, not simply learning about work. Expanding high-quality WBL opportunities for students is one of Nebraska's CTE strategic priorities and is a program quality accountability indicator. Nebraska CTE affirms WBL as a critical component of career development. Throughout the State Model Programs of Study, courses where WBL is embedded into the class is noted in the course title (e.g., "Information Technology Work-Based Learning Experience"). It is also signaled as an expanded learning opportunity across all programs of study.

Career And Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are an extension of classroom instruction—applying classroom learning to real-world experiences. CTSOs provide opportunities for all students to develop career readiness skills through activities, competitions, and community service. Nebraska recognizes seven CTSOs aligned with the state's Programs of Study and career field areas. These include:



CAREER READINESS STANDARDS

Embedded into the State Model Programs of Study and courses are the Nebraska Career Readiness standards. These standards rest on important "practices and proficiencies" with long-standing importance in career education. These standards and related practices are not limited to formal CTE programs nor to the middle school or high school level. Rather, these standards and practices should be used over and over again with increasing complexity and relevance by students as they progress through their educational pathway. The standards themselves do not dictate curriculum, pedagogy or delivery of content. Schools and colleges may handle the teaching and assessing of these standards in many different ways.

THE CAREER READY INDIVIDUAL...



1. Applies appropriate academic and technical skills



2. Communicates effectively and appropriately



3. Contributes to employer and community success



4. Makes sense of problems and perseveres in solving them



5. Uses critical thinking



6. Demonstrates innovation and creativity



7. Models ethical leadership and effective management



8. Works productively in teams and demonstrates cultural competency



9. Utilizes technology



10. Manages personal career development



11. Attends to personal and financial well-being



COMMUNICATION ARTS CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
BROADCAST JOURNALISM (Page10–24)	270602 - Digital Media	270609 - Video Production	270610 - Media Production, OR 270604 - Foundations of Web Design	320704 - Communication Arts Work-Based Learning Experience
DIGITAL DESIGN (Page 25–38)	270602 - Digital Media	270611 - Digital Design	270613 - Advanced Digital Design, OR 270604 - Foundations of Web Design	320704 - Communication Arts Work-Based Learning Experience



INFORMATION TECHNOLOGY CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
BUSINESS TECHNOLOGY (Page 39–53)	270501 - IT Applications 1, AND 270502 - IT Applications 2	270611 - Digital Design	270604 - Foundations of Web Design, OR 030600 - Business Communication (BMM)	320713 - Information Technology Work-Based Learning Experience, OR 320704 - Communication Arts Work-Based Learning Experience
CISCO NETWORKING	270505 - CISCO I: Introduction to Networks	270506 - CISCO II: Routing & Switching Essentials	270507 - CISCO III: Scaling Networks	320713 - Information Technology Work-Based Learning Experience
COMPUTER SCIENCE (Page 54–69)	270704 - Foundations of Computing, OR 270504 - IT Fundamentals	270703 - Computer Science Principles (1 year), OR 270702 - AP Computer Science Principles, OR 270708 - PLTW Computer Science Principles	270701 - Computer Science A (1 year), OR 270712 - IB Comp Science, OR 270700 - AP Computer Science A, OR 270705 - Software Development, OR 270709 - PLTW Computer Science A	320713 - Information Technology Work-Based Learning Experience



INFORMATION TECHNOLOGY CLUSTER **(CONTINUED)**

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
DATA ANALYTICS AND MANAGEMENT (Page 70–78)	270502 - IT Applications 2	270414 - Data Literacy & Visualization	270413 - Introduction to Data Science	320713 - Information Technology Work-Based Learning Experience
IT OPERATIONS MANAGEMENT (Page 79–92)	270504 - IT Fundamentals, OR 270502 - IT Applications 2	270707 - Cybersecurity, OR 270711 - PLTW Cybersecurity	270601 - Networking	320713 - Information Technology Work-Based Learning Experience
WEB DEVELOPMENT (Page 93–105)	270504 - IT Fundamentals, OR 270502 - IT Applications 2	270706 - Web Design & Development	270604 - Foundations of Web Design	320713 - Information Technology Work-Based Learning Experience, OR 320704 - Communication Arts Work-Based Learning Experience

DIGITAL MEDIA

COURSE DESCRIPTION

Students will learn and apply copyright laws while using industry standard digital tools to create, design, and produce digital media including sound, video, motion graphics, and print design following rules of composition and basic design principles.

STANDARDS AND INDICATORS:

CIS.HS.7.1 Evaluate and comply with copyright laws.

CIS.HS.7.1.a	Define terms such as infringement and fair use, royalty free and copyright free, and public domain.
CIS.HS.7.1.b	Locate sources of royalty-free music, images, graphics, and video.
CIS.HS.7.1c	Define copyright as it applies to their own creative work.
CIS.HS.7.1.d	Select audio, video, still images, and art that are royalty free and/or abide by the licensing agreement under Creative Commons usage.
CIS.HS.7.1.e	Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, Public Domain…)

CIS.HS.7.2 Demonstrate composition techniques.

CIS.HS.7.2.a	Demonstrate rules of composition (e.g., rule of thirds, point-of-view, framing).
CIS.HS.7.2.b	Demonstrate a variety of photographic/video shots using a digital camera or video camera (e.g., establishing, close up, mid-shot, wide, over the shoulder).
CIS.HS.7.2.c	Demonstrate elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy, and scale).
CIS.HS.7.2.d	Demonstrate basic design principles such as consistency, dominance, palette, eye line, readability, alignment, and color theory.

DIGITAL MEDIA (cont.)

CIS.HS.7.3 Create and edit digital photographic images.

CIS.HS.7.3.a	Select appropriate hardware and software.
CIS.HS.7.3.b	Capture still photographic images.
CIS.HS.7.3.c	Edit still photos (e.g., cropping, color correction, layers, and levels).
CIS.HS.7.3.d	Export photos in a usable format.
CIS.HS.7.3.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.3.f	Navigate, organize, and customize the application workspace.

CIS.HS.7.4 Create and edit digital audio.

CIS.HS.7.4.a	Select appropriate hardware and software.
CIS.HS.7.4.b	Capture an audio recording.
CIS.HS.7.4.c	Edit digital audio (e.g., trim, delete, and add effects).
CIS.HS.7.4.d	Export audio in a usable format.
CIS.HS.7.4.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.4.f	Navigate, organize, and customize the application workspace.

DIGITAL MEDIA (cont.)

CIS.HS.7.5 Create and edit digital video.

CIS.HS.7.5.a	Select appropriate hardware and software.
CIS.HS.7.5.b	Capture video footage.
CIS.HS.7.5.c	Edit digital video (e.g., trim, delete, and add effects).
CIS.HS.7.5.d	Export video in a usable format.
CIS.HS.7.5.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.5.f	Navigate, organize, and customize the application workspace.

CIS.HS.7.6 Create and edit motion graphics objects for animation.

CIS.HS.7.6.a	Select appropriate hardware and software
CIS.HS.7.6.b	Add motion to objects.
CIS.HS.7.6.c	Edit motion graphics (e.g., trim, delete, add effects, etc.).
CIS.HS.7.6.d	Export motion graphics in a usable format.
CIS.HS.7.6.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.6.f	Navigate, organize, and customize the application workspace.

DIGITAL MEDIA (cont.)

CIS.HS.7.7 Create and edit digital print design.

CIS.HS.7.7.a	Select appropriate hardware and software.
CIS.HS.7.7.b	Apply elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy, and scale).
CIS.HS.7.7.c	Apply basic design principles such as consistency, dominance, palette, eye line, readability, and alignment.
CIS.HS.7.7.d	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.7.e	Navigate, organize, and customize the application workspace.

VIDEO PRODUCTION

COURSE DESCRIPTION

Students will expand upon the basics of video production to create projects that will involve a sequence requiring pre-production, production, and post production. The emphasis of video production is to tell stories through interviewing, scripting, and a more professional application of lighting, filming, recording, and editing.

STANDARDS AND INDICATORS:

CIS.HS.17.1 Use video equipment to create media production projects.

CIS.HS.17.1.a	Identify and use various types of cameras (e.g., DSLR's, camcorders, drones, etc) to best capture the scene.
CIS.HS.17.1.b	Identify and use various types of camera features (e.g., white balance, iso, fps).
CIS.HS.17.1.c	Demonstrate the functions and uses of camera mounting devices (e.g., monopods, tripods, steadicam, gimbals, etc.).
CIS.HS.17.1.d	Demonstrate different shot compositions (e.g., establishing shot, medium shot, close up, long shot, etc.).
CIS.HS.17.1.e	Demonstrate compositional techniques with a camera (e.g., rule of thirds, framing, balance, background/foreground, headroom, lead room, etc.).
CIS.HS.17.1.f	Demonstrate proper use, maintenance, and care of all equipment and tools.

CIS.HS.17.2 Use audio equipment to create media production projects.

CIS.HS.17.2.a	Identify and use various types of microphones (e.g., lavaliere, directional, omnidirectional, shotgun, podcast, etc) to best capture voice, natural sound, ambient sound, background music, and secondary sounds for mood and effect.
CIS.HS.17.2.b	Explain the function of industry standard audio equipment and accessories (e.g., microphones, XLR, 2 Ring (TRS) vs. 3 Ring (TRRS) for headphones, mixing board, cabling, etc.).
CIS.HS.17.2.c	Identify and then troubleshoot sources of interference and poor sound quality.
CIS.HS.17.2.d	Demonstrate proper use, maintenance, and care of all equipment and tools.

VIDEO PRODUCTION (cont.)

CIS.HS.17.3 Use lighting to create media production projects.

CIS.HS.17.3.a Utilize various light sources for effect (e.g., natural light, back light, reflectors, portable lights, box lights, lamps etc.).

CIS.HS.17.3.b Explain and demonstrate the use of lighting techniques in creating composition, visual continuity, and mood.

CIS.HS.17.3.c Demonstrate proper use, maintenance, and care of all equipment and tools.

CIS.HS.17.4 Complete pre-production tasks.

CIS.HS.17.4.a Propose a project to include purpose, target audience, delivery method, selection of cast and crew, best equipment for the job, logistics, and schedule.

CIS.HS.17.4.b Scout and secure locations for the best lighting, sound, availability, and proper setting for the purpose of the project.

CIS.HS.17.4.c Create a properly formatted storyboard and shot list for each scene (sketch subjects, draw background, motion/movement, shot numbers, etc.).

CIS.HS.17.5 Develop all parts of the storytelling process.

CIS.HS.17.5.a Write questions for interviews.

CIS.HS.17.5.b Write a voice over script.

CIS.HS.17.5.c Research information as part of the story.

VIDEO PRODUCTION (cont.)

CIS.HS.17.6 Perform production tasks.

CIS.HS.17.6.a	Perform the duties of director to create vision as laid forth in pre-production (e.g., disseminate commands and information to cast and crew and execute creative vision).
CIS.HS.17.6.b	Perform the duties of various production roles (i.e., camera operator, sound operator, grip, gaffer, on-air talent, etc.).
CIS.HS.17.6.c	Employ basic lighting techniques for the project (i.e., three-point, natural, artificial, reflectors, etc.).
CIS.HS.17.6.d	Employ appropriate audio recording method for the project.
CIS.HS.17.6.e	Reflect, revise, and refine pre-production decisions as needed.
CIS.HS.17.6.f	Apply different shot compositions when filming (e.g., establishing shot, medium shot, close up, long shot, etc.).

CIS.HS.17.7 Perform post-production tasks.

CIS.HS.17.7.a	Import and organize media to create an efficient workflow (i.e., assemble, review, share, etc.).
CIS.HS.17.7.b	Demonstrate how to perform editing techniques using chosen software (e.g., cuts, trims, color correction, cropping, audio leveling, key framing, chroma key, transitions, compositing, continuity, and fades).
CIS.HS.17.7.c	Determine effect use and placement of titles, text, fonts, colors, graphics, and lower thirds.
CIS.HS.17.7.d	Implement legal and appropriate audio into a project.
CIS.HS.17.7.e	Evaluate video for proper timing and pacing techniques appropriate to the project.
CIS.HS.17.7.f	Differentiate between still image, audio, and digital video extensions and how they function in the project.
CIS.HS.17.7.g	Create, compress, and convert digital video files, still images, and audio files in various formats (e.g., MPEG, WMV, MOV, MP3, MP4, VLC, JPEG, AIFF, AVCHD, etc.).

VIDEO PRODUCTION (cont.)

CIS.HS.17. 8 Describe working in the media production industry.

CIS.HS.17.8.a Describe best practices employed in the design industry.

CIS.HS.17.8.b Examine careers in the media production field.

CIS.HS.17.8.c Identify job market trends in the media production field.

CIS.HS.17.8.d Identify the benefits of industry certification and higher education in the field.

CIS.HS.17.9 Evaluate and comply with copyright laws.

CIS.HS.17.9.a Determine the type of copyright, permissions, and licensing required to use specific content.

CIS.HS.17.9.b Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, Public Domain).

CIS.HS.17.9.c Identify legal and ethical considerations for using third-party content, such as copyright, permissions, and licensing.

CIS.HS.17.9.d Understand copyright as it applies to one's own creative work.

MEDIA PRODUCTION

COURSE DESCRIPTION

Students will expand their skills in the creation of media productions such as a news broadcast, video story package, live streaming, radio show, podcast, PSAs, digital signage, short films, documentaries, and other media projects. These skills will prepare students for entry-level positions in the media production field.

STANDARDS AND INDICATORS:

CIS.HS.14.1 Analyze working in the media production field.

- CIS.HS.14.1.a Analyze careers in the media production field.
- CIS.HS.14.1.b Analyze job market trends in the media production field.
- CIS.HS.14.1.c Analyze the benefits of industry certification and higher education in the field.
- CIS.HS.14.1.d Investigate careers in media production.

CIS.HS.14.2 Identify and describe the roles and responsibilities for the cast and crew.

- CIS.HS.14.2.a Describe the hierarchy of the production leadership crew (e.g., Executive Producer, Producer, or Director).
- CIS.HS.14.2.b Identify the roles and duties of the production crew (i.e., actor, on-camera reporter, writer, announcer, play-by-play announcer, color commentary announcer, camera operator, sound board, etc.)

MEDIA PRODUCTION (cont.)

CIS.HS.14.3 Simulate working in the media production field through the creation of client-based media projects.

CIS.HS.14.3.a Compare and contrast the various roles involved in media production.

CIS.HS.14.3.b Interpret the client's purpose, audience, and audience needs for preparing media to ensure the content is relevant.

CIS.HS.14.3.c Prepare a production schedule (e.g., creating and using a work plan, establishing milestones and deliverables).

CIS.HS.14.3.d Describe the importance of branding as it applies to client-based media production projects.

CIS.HS.14.3.e Communicate in person and through written communication with peers and clients about production plans and processes.

CIS.HS.14.3.f Distribute a final product to the target audience using appropriate outlets.

CIS.HS.14.3.g Evaluate effectiveness, analytics, and feedback from the media production.

CIS.HS.14.4 Research, report, and synthesize information from interviews as part of the storytelling process.

CIS.HS.14.4.a Identify the components of a compelling video story.

CIS.HS.14.4.b Write open-ended questions for interviews.

CIS.HS.14.4.c Conduct interviews with subjects.

CIS.HS.14.4.d Incorporate information from research and interviews to write a voice over script appropriate to the project.

MEDIA PRODUCTION (cont.)

CIS.HS.14.5 Demonstrate technical skills for broadcast, video, Internet, audio, and/or mobile production.

CIS.HS.14.5.a Demonstrate proficiency using equipment and software during recording and post-production applications.

CIS.HS.14.5.b Research and evaluate trends in new equipment, software, and techniques.

CIS.HS.14.6 Evaluate and comply with copyright laws.

CIS.HS.14.6.a Determine the type of copyright, permissions, and licensing required to use specific content.

CIS.HS.14.6.b Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, Public Domain).

CIS.HS.14.6.c Identify legal and ethical considerations for using third-party content, such as copyright, permissions, and licensing.

CIS.HS.14.6.d Apply copyright as it pertains to one's own creative work.

CIS.HS.14.7 Create a digital portfolio which demonstrates competency in the Media Production field.

CIS.HS.14.7.a Examine professional digital portfolios as models.

CIS.HS.14.7.b Evaluate all elements of the portfolio for compliance with copyright.

CIS.HS.14.7.c Curate works for the portfolio that demonstrates media production skills.

CIS.HS.14.7.d Design portfolio so that it demonstrates principles of good design.

CIS.HS.14.7.e Choose language to ensure copyright protections of the student work.

CIS.HS.14.7.f Explain the importance of branding as it applies to their portfolio of creative work.

FOUNDATIONS OF WEB DESIGN

COURSE DESCRIPTION

Students will demonstrate knowledge of web and mobile app design to create an effective website or app that captures and keeps visitors' interests. Students will demonstrate project management skills, while also enhancing creativity, problem solving, and critical thinking. Students will explore career opportunities in an information technology career field.

STANDARDS AND INDICATORS:

CIS.HS.9.1 Explain and apply appropriate web design language and terminology.

- CIS.HS.9.1.a Describe the principles and goals of website design.
- CIS.HS.9.1.b Describe the principles and goals of responsive design.
- CIS.HS.9.1.c Describe binary code.
- CIS.HS.9.1.d Define common industry terminology.

CIS.HS.9.2 Plan a website and/or app for a specific purpose.

- CIS.HS.9.2.a Develop a storyboard, mock-up, and wireframes for a website and/or app.
- CIS.HS.9.2.b Explain the design process in regards to audience, layout, time, and budget.
- CIS.HS.9.2.c Identify the target market audience's needs.
- CIS.HS.9.2.d Evaluate clients' needs based on current trends.
- CIS.HS.9.2.e Plan for responsive design.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.3 Analyze elements and principles of design to communicate ideas consistent with project goals.

CIS.HS.9.3.a	Apply appropriate font and font family concepts.
CIS.HS.9.3.b	Demonstrate knowledge of design decisions in regards to shapes, lines, colors.
CIS.HS.9.3.c	Demonstrate knowledge of design decisions in regards to white space, margins, and layout of graphic and text.
CIS.HS.9.3.d	Incorporate text layout techniques such as kerning, leading, and alignment.
CIS.HS.9.3.e	Incorporate audio, visual, and graphic elements.
CIS.HS.9.3.f	Develop a focused concept, clear methods of conveyance, and unified theme that solves the given problem.
CIS.HS.9.3.g	Identify accessibility and standard compliance measures in order to communicate with a broad audience.
CIS.HS.9.3.h	Explain design decisions in regards to themes.
CIS.HS.9.3.i	Evaluate the impact of design decisions on the theme of a design.
CIS.HS.9.3.j	Explain design and project goals using a storyboard, mock-up, and wireframes.

CIS.HS.9.4 Analyze legal and ethical responsibilities.

CIS.HS.9.4.a	Apply copyright laws as appropriate in website and app creation.
CIS.HS.9.4.b	Discuss security issues that are related to the utilization of the computer and/or Internet.
CIS.HS.9.4.c	Describe situations where web pages and/or apps may be used unethically.
CIS.HS.9.4.d	Describe licensing agreements.
CIS.HS.9 4.e	Discuss the importance of creative commons.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.5 Create and test websites and/or apps designed for cross browser and mobile compatibility.

CIS.HS.9.5.a Utilize standards-compliant elements in code that delivers essential content and functionality if older browsers are not capable of displaying content.

CIS.HS.9.5.b Create websites and/or apps that utilize responsive design to allow for a variety of screen sizes and geometries to view the content in a meaningful and logical fashion.

CIS.HS.9.5.c Test an application on devices of varying geometries and operating system versions to ensure maximum compatibility.

CIS.HS.9.6 Implement quality assurance processes to deliver effective digital communication.

CIS.HS.9.6.a Evaluate the website and/or app functionality.

CIS.HS.9.6.b Test a website and/or app in a variety of environments.

CIS.HS.9.6.c Evaluate site effectiveness through user search and accessibility to meet all audience needs.

CIS.HS.9.6.d Investigate web hosts.

CIS.HS.9.6.e Troubleshoot and maintain a website and/or app.

CIS.HS.9.6.f Evaluate cross-browser compatibility.

CIS.HS.9.6.g Identify the process of securing a domain name.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.7 Critique a website and/or app in accordance with web design principles.

CIS.HS.9.7.a Assess download time.

CIS.HS.9.7.b Assess readability of the website and/or app.

CIS.HS.9.7.c Assess ease of navigation for both website and/or app.

CIS.HS.9.7.d Assess the design theme of a website and/or app.

CIS.HS.9.7.e Assess consistency of the theme across the entire website and/or app.

CIS.HS.9.7.f Assess the functionality of links.

CIS.HS.9.8 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.9.8.a Identify information technologies used in various industries.

CIS.HS.9.8.b Discuss the impact of technology on all career fields.

CIS.HS.9.8.c Identify common tasks in career fields.

CIS.HS.9.8.d Discuss career opportunities in information technology career fields.

CIS.HS.9.8.e Describe the impact of technological change and the importance of lifelong learning in this career field.

DIGITAL MEDIA

COURSE DESCRIPTION

Students will learn and apply copyright laws while using industry standard digital tools to create, design, and produce digital media including sound, video, motion graphics, and print design following rules of composition and basic design principles.

STANDARDS AND INDICATORS:

CIS.HS.7.1 Evaluate and comply with copyright laws.

CIS.HS.7.1.a	Define terms such as infringement and fair use, royalty free and copyright free, and public domain.
CIS.HS.7.1.b	Locate sources of royalty-free music, images, graphics, and video.
CIS.HS.7.1.c	Define copyright as it applies to their own creative work.
CIS.HS.7.1.d	Select audio, video, still images, and art that are royalty free and/or abide by the licensing agreement under Creative Commons usage.
CIS.HS.7.1.e	Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, Public Domain…)

CIS.HS.7.2 Demonstrate composition techniques.

CIS.HS.7.2.a	Demonstrate rules of composition (e.g., rule of thirds, point-of-view, framing).
CIS.HS.7.2.b	Demonstrate a variety of photographic/video shots using a digital camera or video camera (e.g., establishing, close up, mid-shot, wide, over the shoulder).
CIS.HS.7.2.c	Demonstrate elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy, and scale).
CIS.HS.7.2.d	Demonstrate basic design principles such as consistency, dominance, palette, eye line, readability, alignment, and color theory.

DIGITAL MEDIA (cont.)

CIS.HS.7.3 Create and edit digital photographic images.

CIS.HS.7.3.a	Select appropriate hardware and software.
CIS.HS.7.3.b	Capture still photographic images.
CIS.HS.7.3.c	Edit still photos (e.g., cropping, color correction, layers, and levels).
CIS.HS.7.3.d	Export photos in a usable format.
CIS.HS.7.3.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.3.f	Navigate, organize, and customize the application workspace.

CIS.HS.7.4 Create and edit digital audio.

CIS.HS.7.4.a	Select appropriate hardware and software.
CIS.HS.7.4.b	Capture an audio recording.
CIS.HS.7.4.c	Edit digital audio (e.g., trim, delete, and add effects).
CIS.HS.7.4.d	Export audio in a usable format.
CIS.HS.7.4.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.4.f	Navigate, organize, and customize the application workspace.

DIGITAL MEDIA (cont.)

CIS.HS.7.5 Create and edit digital video.

CIS.HS.7.5.a	Select appropriate hardware and software.
CIS.HS.7.5.b	Capture video footage.
CIS.HS.7.5.c	Edit digital video (e.g., trim, delete, and add effects).
CIS.HS.7.5.d	Export video in a usable format.
CIS.HS.7.5.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.5.f	Navigate, organize, and customize the application workspace.

CIS.HS.7.6 Create and edit motion graphics objects for animation.

CIS.HS.7.6.a	Select appropriate hardware and software
CIS.HS.7.6.b	Add motion to objects.
CIS.HS.7.6.c	Edit motion graphics (e.g., trim, delete, add effects, etc.).
CIS.HS.7.6.d	Export motion graphics in a usable format.
CIS.HS.7.6.e	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.6.f	Navigate, organize, and customize the application workspace.

DIGITAL MEDIA (cont.)

CIS.HS.7.7 Create and edit digital print design.

CIS.HS.7.7.a	Select appropriate hardware and software.
CIS.HS.7.7.b	Apply elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy, and scale).
CIS.HS.7.7.c	Apply basic design principles such as consistency, dominance, palette, eye line, readability, and alignment.
CIS.HS.7.7.d	Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, and external hard drives).
CIS.HS.7.7.e	Navigate, organize, and customize the application workspace.

DIGITAL DESIGN

COURSE DESCRIPTION

Students will focus on developing skills to plan, design, and create digital design projects using elements of composition, digital photography, and digital print design.

STANDARDS AND INDICATORS:

CIS.HS.6.1 Utilize composition techniques.

CIS.HS.6.1.a	Demonstrate rules of composition (e.g., rule of thirds, point-of-view, framing).
CIS.HS.6.1.b	Demonstrate a variety of photographic shots using a digital camera.
CIS.HS.6.1.c	Demonstrate elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy and scale).
CIS.HS.6.1.d	Demonstrate basic design principles such as consistency, dominance, palette, eye line, readability, alignment, and color theory.
CIS.HS.6.1.e	Differentiate between bitmap, raster, and vector images.

CIS.HS.6.2 Create and edit digital photographic images.

CIS.HS.6.2.a	Select appropriate hardware and software.
CIS.HS.6.2.b	Capture still photographic images.
CIS.HS.6.2.c	Edit still photos (e.g., cropping, color correction, layers, and levels).
CIS.HS.6.2.d	Apply multiple camera modes.
CIS.HS.6.2.e	Apply light and color principles to projects.
CIS.HS.6.2.f	Apply image stabilization.
CIS.HS.6.2.g	Apply exposure, shutter speed, and aperture.
CIS.HS.6.2.h	Export photos in a usable format.
CIS.HS.6.2.i	Name and store native and exported files in a manageable file structure (i.e.: Drive, Cloud, or external hard drive).

DIGITAL DESIGN (cont.)

CIS.HS.6.3 Create and edit digital print design.

CIS.HS.6.3.a	Select appropriate hardware and software.
CIS.HS.6.3.b	Apply elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy and scale).
CIS.HS.6.3.c	Apply basic design principles such as consistency, dominance, palette, eye line, readability, and alignment.
CIS.HS.6.3.d	Demonstrate knowledge of page layout (e.g.,negative space, alignment, symmetrical, and asymmetrical).
CIS.HS.6.3.e	Use layers to manage design elements and modify layer visibility using opacity and masks.
CIS.HS.6.3.f	Make, manage, and manipulate selections.
CIS.HS.6.3.g	Name and store native and exported files in a manageable file structure (ie: Drive, Cloud, or external hard drive).
CIS.HS.6.3.h	Explain the difference between modes of a print document: CMYK, RGB, grayscale, bitmap.

CIS.HS.6.4 Create and edit motion graphics objects for animation.

CIS.HS.6.4.a	Select appropriate hardware and software.
CIS.HS.6.4.b	Add motion to objects as a project or to enhance a project.
CIS.HS.6.4.c	Edit motion graphics (e.g., trim, delete, add effects, etc.).
CIS.HS.6.4.d	Export a motion graphic in a usable format.
CIS.HS.6.4.e	Name and store native and exported files in a manageable file structure i.e., Drive, Cloud, or external hard drive).

DIGITAL DESIGN (cont.)

CIS.HS.6.5 Describe working in the digital design field.

CIS.HS.6.5.a	Identify the purpose, audience, and audience needs for preparing images.
CIS.HS.6.5.b	Determine whether content is relevant to the purpose, audience, and audience needs.
CIS.HS.6.5.c	Demonstrate knowledge of basic design principles and understand best practices employed in the digital design field.
CIS.HS.6.5.d	Examine careers in the digital design field.
CIS.HS.6.5.e	Identify job market trends in the digital design field.
CIS.HS.6.5.f	Identify the benefits of industry certification and higher education in the field.

CIS.HS.6.6 Evaluate and comply with copyright laws.

CIS.HS.6.6.a	Determine the type of copyright, permissions, and licensing required to use specific content.
CIS.HS.6.6.b	Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, or Public Domain).
CIS.HS.6.6.c	Identify legal and ethical considerations for using third-party content, such as copyright, permissions, and licensing.
CIS.HS.6.6.d	Understand copyright as it applies to their own creative work.

ADVANCED DIGITAL DESIGN

COURSE DESCRIPTION

Students will focus on utilizing advanced skills to plan, design, and create a design portfolio to showcase elements of composition, digital photography, or digital print design. These skills will prepare students for entry-level positions in the digital design field.

STANDARDS AND INDICATORS:

CIS.HS.1.1 Design client-based or personal projects utilizing composition techniques.

- CIS.HS.1.1.a Compose photographic, digital print design, or animation projects utilizing design and composition rules.
- CIS.HS.1.1.b Select appropriate hardware and software based on the final product needed by client.
- CIS.HS.1.1.c Demonstrate rules of composition.
- CIS.HS.1.1.d Construct a project and justify chosen design principles.
- CIS.HS.1.1.e Name and store native and exported files in a manageable file structure (i.e., Drive, Cloud, external hard drive).

CIS.HS.1.2 Design graphics and text that clearly express the personal perspective of intended audiences.

- CIS.HS.1.2.a Identify purpose, audience, and audience needs for preparing images.

  Determine whether content is relevant to the purpose, audience, and audience needs.
- CIS.HS.1.2.b Prepare a production schedule (e.g., creating and using a work plan, establishing milestones and deliverables).
- CIS.HS.1.2.c Assess and utilize design principles and best practices employed in the design field.

ADVANCED DIGITAL DESIGN (cont.)

CIS.HS.1.3 Simulate working in the digital design field through creation of client-based design projects.

CIS.HS.1.3.a Describe the client's purpose and audience when preparing projects to ensure the content is relevant to the client's needs.

CIS.HS.1.3.b Prepare a production schedule (e.g., creating and using a work plan, establishing milestones and deliverables).

CIS.HS.1.3.c Assess and utilize design principles and best practices employed in the design field.

CIS.HS.1.3.d Describe the importance of branding as it applies to client-based design projects.

CIS.HS.1.3.e Communicate effectively in person and through written communication with peers and clients about design plans and processes.

CIS.HS.1.4 Analyze working in the digital design field.

CIS.HS.1.4.a Analyze careers in the digital design field.

CIS.HS.1.4.b Analyze job market trends in the digital design field.

CIS.HS.1.4.c Analyze the benefits of industry certification and higher education in the field.

CIS.HS.1.4.d Investigate careers in digital design through pursuit of a job shadowing or internship experience.

ADVANCED DIGITAL DESIGN (cont.)

CIS.HS.1.5 Evaluate and comply with copyright laws.

CIS.HS.1.5.a	Determine the type of copyright, permissions, and licensing required to use specific content.
CIS.HS.1.5.b	Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, Public Domain).
CIS.HS.1.5.c	Identify legal and ethical considerations for using third-party content, such as copyright, permissions, and licensing.
CIS.HS.1.5.d	Apply copyright as it pertains to their own creative work.

CIS.HS.1.6 Create a digital portfolio which demonstrates competency in the digital design field.

CIS.HS.1.6.a	Examine professional digital portfolios as models.
CIS.HS.1.6.b	Evaluate all elements of the portfolio for compliance with copyright.
CIS.HS.1.6.c	Curate works for the portfolio that demonstrate mastery of design.
CIS.HS.1.6.d	Design portfolio itself so that it demonstrates mastery of design.
CIS.HS.1.6.e	Choose language to ensure copyright protections of the student work.
CIS.HS.1.6.f	Describe the importance of branding as it applies to their portfolio of creative work.

FOUNDATIONS OF WEB DESIGN

COURSE DESCRIPTION

Students will demonstrate knowledge of web and mobile app design to create an effective website or app that captures and keeps visitors' interests. Students will demonstrate project management skills, while also enhancing creativity, problem solving, and critical thinking. Students will explore career opportunities in an information technology career field.

STANDARDS AND INDICATORS:

CIS.HS.9.1 Explain and apply appropriate web design language and terminology.

- CIS.HS.9.1.a Describe the principles and goals of website design.
- CIS.HS.9.1.b Describe the principles and goals of responsive design.
- CIS.HS.9.1.c Describe binary code.
- CIS.HS.9.1.d Define common industry terminology.

CIS.HS.9.2 Plan a website and/or app for a specific purpose.

- CIS.HS.9.2.a Develop a storyboard, mock-up, and wireframes for a website and/or app.
- CIS.HS.9.2.b Explain the design process in regards to audience, layout, time, and budget.
- CIS.HS.9.2.c Identify the target market audience's needs.
- CIS.HS.9.2.d Evaluate clients' needs based on current trends.
- CIS.HS.9.2.e Plan for responsive design.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.3 Analyze elements and principles of design to communicate ideas consistent with project goals.

CIS.HS.9.3.a	Apply appropriate font and font family concepts.
CIS.HS.9.3.b	Demonstrate knowledge of design decisions in regards to shapes, lines, colors.
CIS.HS.9.3.c	Demonstrate knowledge of design decisions in regards to white space, margins, and layout of graphic and text.
CIS.HS.9.3.d	Incorporate text layout techniques such as kerning, leading, and alignment.
CIS.HS.9.3.e	Incorporate audio, visual, and graphic elements.
CIS.HS.9.3.f	Develop a focused concept, clear methods of conveyance, and unified theme that solves the given problem.
CIS.HS.9.3.g	Identify accessibility and standard compliance measures in order to communicate with a broad audience.
CIS.HS.9.3.h	Explain design decisions in regards to themes.
CIS.HS.9.3.i	Evaluate the impact of design decisions on the theme of a design.
CIS.HS.9.3.j	Explain design and project goals using a storyboard, mock-up, and wireframes.

CIS.HS.9.4 Analyze legal and ethical responsibilities.

CIS.HS.9.4.a	Apply copyright laws as appropriate in website and app creation.
CIS.HS.9.4.b	Discuss security issues that are related to the utilization of the computer and/or Internet.
CIS.HS.9.4.c	Describe situations where web pages and/or apps may be used unethically.
CIS.HS.9.4.d	Describe licensing agreements.
CIS.HS.9.4.e	Discuss the importance of creative commons.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.5 Create and test websites and/or apps designed for cross browser and mobile compatibility.

CIS.HS.9.5.a Utilize standards-compliant elements in code that delivers essential content and functionality if older browsers are not capable of displaying content.

CIS.HS.9.5.b Create websites and/or apps that utilize responsive design to allow for a variety of screen sizes and geometries to view the content in a meaningful and logical fashion.

CIS.HS.9.5.c Test an application on devices of varying geometries and operating system versions to ensure maximum compatibility.

CIS.HS.9.6 Implement quality assurance processes to deliver effective digital communication.

CIS.HS.9.6.a Evaluate the website and/or app functionality.

CIS.HS.9.6.b Test a website and/or app in a variety of environments.

CIS.HS.9.6.c Evaluate site effectiveness through user search and accessibility to meet all audience needs.

CIS.HS.9.6.d Investigate web hosts.

CIS.HS.9.6.e Troubleshoot and maintain a website and/or app.

CIS.HS.9.6.f Evaluate cross-browser compatibility.

CIS.HS.9.6.g Identify the process of securing a domain name.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.7 Critique a website and/or app in accordance with web design principles.

- CIS.HS.9.7.a Assess download time.
- CIS.HS.9.7.b Assess readability of the website and/or app.
- CIS.HS.9.7.c Assess ease of navigation for both website and/or app.
- CIS.HS.9.7.d Assess the design theme of a website and/or app.
- CIS.HS.9.7.e Assess consistency of the theme across the entire website and/or app.
- CIS.HS.9.7.f Assess the functionality of links.

CIS.HS.9.8 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

- CIS.HS.9.8.a Identify information technologies used in various industries.
- CIS.HS.9.8.b Discuss the impact of technology on all career fields.
- CIS.HS.9.8.c Identify common tasks in career fields.
- CIS.HS.9.8.d Discuss career opportunities in information technology career fields.
- CIS.HS.9.8.e Describe the impact of technological change and the importance of lifelong learning in this career field.

INFORMATION TECHNOLOGY APPLICATIONS I

COURSE DESCRIPTION

Students will explore emerging technologies as it applies to success in high school, college, and career. The focus will be on the importance of digital citizenship, professional communication practices, advanced document processing, professional presentations, and intermediate spreadsheet and database applications used personally and professionally.

STANDARDS AND INDICATORS:

CIS.HS.10.1 Model positive digital citizenship by applying industry-accepted ethical practices and behaviors.

- CIS.HS.10.1.a Examine and practice cultural, social, ethical, and legal issues associated with information technology.
- CIS.HS.10.1.b Formulate a critical stance by questioning the validity, accuracy, and appropriateness of information.
- CIS.HS.10.1.c Demonstrate a variety of strategies for effective and efficient searches.
- CIS.HS.10.1.d Evaluate safety and security measures for protecting information and developing digital footprints.

CIS.HS.10.2 Use document processing applications to prepare business communications.

- CIS.HS.10.2.a Create, edit, and customize documents using advanced techniques.
- CIS.HS.10.2.b Prepare and troubleshoot merged documents (e.g., envelopes, mailings, labels).
- CIS.HS.10.2.c Apply digital design strategies to design professional documents (e.g., graphic design, layout, typography, font face, font style).

INFORMATION TECHNOLOGY APPLICATIONS I (cont.)

CIS.HS.10.3 Develop and demonstrate effective communication skills and practices.

CIS.HS.10.3.a Prepare and develop presentations that can be used in a current workplace.

CIS.HS.10.3.b Compose electronic communication to communicate within a workplace.

CIS.HS.10.3.c Customize a presentation using advanced features for a specific audience.

CIS.HS.10.4 Organize and manipulate data using spreadsheet applications.

CIS.HS.10.4.a Enter and modify worksheet data and structure, format data, and problem solve in a worksheet.

CIS.HS.10.4.b Sort and manipulate data using formulas and functions.

CIS.HS.10.4.c Create visual representations of data (e.g., charts, pivot tables, sparklines, and conditional formatting)

CIS.HS.10.5 Identify database management concepts to manage, evaluate, and organize information.

CIS.HS.10.5.a Compare and contrast methods for storing, organizing, and retrieving data.

CIS.HS.10.5.b Sort and manipulate data using formulas and functions and create charts.

CIS.HS.10.5.c Create and format a database.

CIS.HS.10.5.d Create database objects (e.g., tables, forms, queries).

CIS.HS.10.5.e Modify or enter records, create reports, and/or sort data.

INFORMATION TECHNOLOGY APPLICATIONS I (cont.)

CIS.HS.10.6 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.10.6.a Identify information technologies used in various industries.

CIS.HS.10.6.b Discuss the impact of technology on all career fields.

CIS.HS.10.6.c Identify common information technology tasks in career fields.

CIS.HS.10.6.d Discuss career opportunities in information technology career fields.

CIS.HS.10.6.e Describe the impact of technological change and the importance of lifelong learning in this career field.

CIS.HS.10.7 Describe emerging and evolving trends in information technology.

CIS.HS.10.7.a Investigate emerging trends in technology and their impact on business and industry.

CIS.HS.10.7.b Interact with new and emerging technologies.

CIS.HS.10.7.c Identify emerging technologies to create and evaluate forms of communication.

INFORMATION TECHNOLOGY APPLICATIONS II

COURSE DESCRIPTION

This course will focus on skill development in data science using word processing, spreadsheets, databases, and integration of applications utilizing advanced features. Students taking both Information Technology Applications I and II may be eligible for dual credit at a participating postsecondary institution. Skills, standards, and coursework align with industry certifications.

STANDARDS AND INDICATORS:

CIS.HS.11.1 Organize, aggregate, and manipulate data using advanced word processing features.

CIS.HS.11.1.a	Integrate other program files into word processing documents (insert, embed, and link).
CIS HS.11.1.b	Create and format tables using advanced features (formulas, styles).
CIS HS.11.1.c	Use advanced merge features to integrate spreadsheet and database information into the word processing document as fields and records.
CIS.HS.11.1.d	Create and manage styles.
CIS.HS.11.1.e	Plan, record, run, and edit Macros.

CIS.HS.11.2 Organize, aggregate, and manipulate data using advanced spreadsheet features.

CIS.HS.11.2.a	Create worksheet structures using formulas and advanced features. (e.g., logical statements, vLookup, financial, statistical functions, and named ranges).
CIS.HS.11.2.b	Interpret data through statistical analysis (e.g., sorting, filtering, forecasting, and pivot tables).
CIS.HS.11.2.c	Import, export, and share worksheet data.
CIS.HS.11.2.d	Customize formatting methods, including conditional formatting and other advanced formatting methods.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.3 Synthesize relational database concepts to design, manage, evaluate, and organize information.

CIS.HS.11.3.a Design tables specifying properties for data entry and relationships.

CIS.HS.11.3.b Construct multi-table queries to retrieve, organize, and aggregate data to draw conclusions.

CIS.HS.11.3.c Design forms and subforms for efficient and effective data entry or retrieval.

CIS.HS.11.3.d Design reports and subreports utilizing tables, graphs, sparklines, and pivot tables for displaying meaningful data.

CIS.HS.11.3.e Analyze relational data using Structure Query Language (SQL).

CIS.HS.11.4 Consider the relationship between different programs to utilize data in one program to the next to create new documents.

CIS.HS.11.4.a Utilize spreadsheets, presentation, and database information in word processing documents.

CIS.HS.11.4.b Utilize word processing, presentation, and database information in a spreadsheet.

CIS.HS.11.4.c Utilize word processing, spreadsheet, and database information in a presentation.

CIS.HS.11.4.d Utilize word processing and spreadsheet information in a database.

CIS.HS.11.5 Describe the importance of ethical data collection and applicable conclusions.

CIS.HS.11.5.a Analyze the privacy practices of data collection and use.

CIS.HS.11.5.b Analyze the security practices of data collection and use.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.6 Demonstrate critical thinking skills to integrate information technology tools to access, manage, and create new information.

CIS.HS.11.6.a Gather, evaluate, use, and disseminate information from multiple technology sources.

CIS.HS.11.6.b Create purposeful, digitally designed products (e.g., brochure, presentation, website, portfolio).

CIS.HS.11.7 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.11.7.a Identify information technologies used in various industries.

CIS.HS.11.7.b Discuss the impact of technology on all career fields.

CIS.HS 11.7.c Identify common tasks in career fields.

CIS.HS 11.7.d Discuss career opportunities in information technology career fields.

CIS.HS.11.7.e Describe the impact of technological change and the importance of lifelong learning in this career field.

CIS.HS.11.7.f Identify the benefits of industry certification and higher education Programs.

CIS.HS.11.7.g Identify the necessary skills to succeed in fields using data science.

DIGITAL DESIGN

COURSE DESCRIPTION

Students will focus on developing skills to plan, design, and create digital design projects using elements of composition, digital photography, and digital print design.

STANDARDS AND INDICATORS:

CIS.HS.6.1 Utilize composition techniques.

CIS.HS.6.1.a	Demonstrate rules of composition (e.g., rule of thirds, point-of-view, framing).
CIS.HS.6.1.b	Demonstrate a variety of photographic shots using a digital camera.
CIS.HS.6.1.c	Demonstrate elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy and scale).
CIS.HS.6.1.d	Demonstrate basic design principles such as consistency, dominance, palette, eye line, readability, alignment, and color theory.
CIS.HS.6.1.e	Differentiate between bitmap, raster, and vector images.

CIS.HS.6.2 Create and edit digital photographic images.

CIS.HS.6.2.a	Select appropriate hardware and software.
CIS.HS.6.2.b	Capture still photographic images.
CIS.HS.6.2.c	Edit still photos (e.g., cropping, color correction, layers, and levels).
CIS.HS.6.2.d	Apply multiple camera modes.
CIS.HS.6.2.e	Apply light and color principles to projects.
CIS.HS.6.2.f	Apply image stabilization.
CIS.HS.6.2.g	Apply exposure, shutter speed, and aperture.
CIS.HS.6.2.h	Export photos in a usable format.
CIS.HS.6.2.i	Name and store native and exported files in a manageable file structure (i.e.: Drive, Cloud, or external hard drive).

DIGITAL DESIGN (cont.)

CIS.HS.6.3 Create and edit digital print design.

CIS.HS.6.3.a	Select appropriate hardware and software.
CIS.HS.6.3.b	Apply elements of typographic design in print media (e.g., font selection, size, leading, tracking and kerning, measure, whitespace, hierarchy and scale).
CIS.HS.6.3.c	Apply basic design principles such as consistency, dominance, palette, eye line, readability, and alignment.
CIS.HS.6.3.d	Demonstrate knowledge of page layout (e.g.,negative space, alignment, symmetrical, and asymmetrical).
CIS.HS.6.3.e	Use layers to manage design elements and modify layer visibility using opacity and masks.
CIS.HS.6.3.f	Make, manage, and manipulate selections.
CIS.HS.6.3.g	Name and store native and exported files in a manageable file structure (ie: Drive, Cloud, or external hard drive).
CIS.HS.6.3.h	Explain the difference between modes of a print document: CMYK, RGB, grayscale, bitmap.

CIS.HS.6.4 Create and edit motion graphics objects for animation.

CIS.HS.6.4.a	Select appropriate hardware and software.
CIS.HS.6.4.b	Add motion to objects as a project or to enhance a project.
CIS.HS.6.4.c	Edit motion graphics (e.g., trim, delete, add effects, etc.).
CIS.HS.6.4.d	Export a motion graphic in a usable format.
CIS.HS.6.4.e	Name and store native and exported files in a manageable file structure i.e., Drive, Cloud, or external hard drive).

DIGITAL DESIGN (cont.)

CIS.HS.6.5 Describe working in the digital design field.

CIS.HS.6.5.a	Identify the purpose, audience, and audience needs for preparing images.
CIS.HS.6.5.b	Determine whether content is relevant to the purpose, audience, and audience needs.
CIS.HS.6.5.c	Demonstrate knowledge of basic design principles and understand best practices employed in the digital design field.
CIS.HS.6.5.d	Examine careers in the digital design field.
CIS.HS.6.5.e	Identify job market trends in the digital design field.
CIS.HS.6.5.f	Identify the benefits of industry certification and higher education in the field.

CIS.HS.6.6 Evaluate and comply with copyright laws.

CIS.HS.6.6.a	Determine the type of copyright, permissions, and licensing required to use specific content.
CIS.HS.6.6.b	Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, or Public Domain).
CIS.HS.6.6.c	Identify legal and ethical considerations for using third-party content, such as copyright, permissions, and licensing.
CIS.HS.6.6.d	Understand copyright as it applies to their own creative work.

FOUNDATIONS OF WEB DESIGN

COURSE DESCRIPTION

Students will demonstrate knowledge of web and mobile app design to create an effective website or app that captures and keeps visitors' interests. Students will demonstrate project management skills, while also enhancing creativity, problem solving, and critical thinking. Students will explore career opportunities in an information technology career field.

STANDARDS AND INDICATORS:

CIS.HS.9.1 Explain and apply appropriate web design language and terminology.

- CIS.HS.9.1.a Describe the principles and goals of website design.
- CIS.HS.9.1.b Describe the principles and goals of responsive design.
- CIS.HS.9.1.c Describe binary code.
- CIS.HS.9.1.d Define common industry terminology.

CIS.HS.9.2 Plan a website and/or app for a specific purpose.

- CIS.HS.9.2.a Develop a storyboard, mock-up, and wireframes for a website and/or app.
- CIS.HS.9.2.b Explain the design process in regards to audience, layout, time, and budget.
- CIS.HS.9.2.c Identify the target market audience's needs.
- CIS.HS.9.2.d Evaluate clients' needs based on current trends.
- CIS.HS.9.2.e Plan for responsive design.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.3 Analyze elements and principles of design to communicate ideas consistent with project goals.

CIS.HS.9.3.a	Apply appropriate font and font family concepts.
CIS.HS.9.3.b	Demonstrate knowledge of design decisions in regards to shapes, lines, colors.
CIS.HS.9.3.c	Demonstrate knowledge of design decisions in regards to white space, margins, and layout of graphic and text.
CIS.HS.9.3.d	Incorporate text layout techniques such as kerning, leading, and alignment.
CIS.HS.9.3.e	Incorporate audio, visual, and graphic elements.
CIS.HS.9.3.f	Develop a focused concept, clear methods of conveyance, and unified theme that solves the given problem.
CIS.HS.9.3.g	Identify accessibility and standard compliance measures in order to communicate with a broad audience.
CIS.HS.9.3.h	Explain design decisions in regards to themes.
CIS.HS.9.3.i	Evaluate the impact of design decisions on the theme of a design.
CIS.HS.9.3.j	Explain design and project goals using a storyboard, mock-up, and wireframes.

CIS.HS.9.4 Analyze legal and ethical responsibilities.

CIS.HS.9.4.a	Apply copyright laws as appropriate in website and app creation.
CIS.HS.9.4.b	Discuss security issues that are related to the utilization of the computer and/or Internet.
CIS.HS.9.4.c	Describe situations where web pages and/or apps may be used unethically.
CIS.HS.9.4.d	Describe licensing agreements.
CIS.HS.9.4.e	Discuss the importance of creative commons.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.5 Create and test websites and/or apps designed for cross browser and mobile compatibility.

CIS.HS.9.5.a Utilize standards-compliant elements in code that delivers essential content and functionality if older browsers are not capable of displaying content.

CIS.HS.9.5.b Create websites and/or apps that utilize responsive design to allow for a variety of screen sizes and geometries to view the content in a meaningful and logical fashion.

CIS.HS.9.5.c Test an application on devices of varying geometries and operating system versions to ensure maximum compatibility.

CIS.HS.9.6 Implement quality assurance processes to deliver effective digital communication.

CIS.HS.9.6.a Evaluate the website and/or app functionality.

CIS.HS.9.6.b Test a website and/or app in a variety of environments.

CIS.HS.9.6.c Evaluate site effectiveness through user search and accessibility to meet all audience needs.

CIS.HS.9.6.d Investigate web hosts.

CIS.HS.9.6.e Troubleshoot and maintain a website and/or app.

CIS.HS.9.6.f Evaluate cross-browser compatibility.

CIS.HS.9.6.g Identify the process of securing a domain name.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.7 Critique a website and/or app in accordance with web design principles.

CIS.HS.9.7.a Assess download time.

CIS.HS.9.7.b Assess readability of the website and/or app.

CIS.HS.9.7.c Assess ease of navigation for both website and/or app.

CIS.HS.9.7.d Assess the design theme of a website and/or app.

CIS.HS.9.7.e Assess consistency of the theme across the entire website and/or app.

CIS.HS.9.7.f Assess the functionality of links.

CIS.HS.9.8 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.9.8.a Identify information technologies used in various industries.

CIS.HS.9.8.b Discuss the impact of technology on all career fields.

CIS.HS.9.8.c Identify common tasks in career fields.

CIS.HS.9.8.d Discuss career opportunities in information technology career fields.

CIS.HS.9.8.e Describe the impact of technological change and the importance of lifelong learning in this career field.

BUSINESS COMMUNICATION

COURSE DESCRIPTION

Students will develop an understanding and appreciation for effective communication in business situations and environments. Emphasis is placed on all phases of communication: speaking, listening, thinking, responding, reading, writing, communicating non-verbally, and utilizing technology for communication.

STANDARDS AND INDICATORS:

BMM.HS.8.1 Demonstrate reading skills in a variety of business-related activities.

- BMM.HS.8.1.a Demonstrate reading comprehension by restating or summarizing information.
- BMM.HS.8.1.b Interpret and evaluate information from print and digital text features to support comprehension.
- BMM.HS.8.1.c Interpret and evaluate information from professional resources and related documents (e.g., manuals, company policies, annual reports, reference materials).

BMM.HS.8.2 Utilize active and attentive listening skills (e.g., eye contact, nonverbal cues, questioning, summarizing) for multiple situations and modalities (e.g., small/large group, presentation, one-to-one, digital).

- BMM.HS.8.2.a Integrate professional etiquette, techniques, and social protocols when communicating.
- BMM.HS.8.2.b Follow multi step directions.
- BMM.HS.8.2.c Identify barriers to listening.
- BMM.HS.8.2.d Assess and respond to non-verbal communication as an active listener.

BUSINESS COMMUNICATION (cont.)

BMM.HS.8.3 Create internal and external business correspondence to convey and obtain information effectively.

BMM.HS.8.3.a Assess the nature of effective written communications.

BMM.HS.8.3.b Utilize appropriate formats for professional writing.

BMM.HS.8.3.c Compose, edit, and revise a variety of written work consistent with professional standards.

BMM.HS.8.4 Apply skills and strategies for the delivery of effective oral communication.

BMM.HS.8.4.a Assess the nature of effective verbal communications.

BMM.HS.8.4.b Match verbal and nonverbal messages (e.g., expression, tone, body language, gestures).

BMM.HS.8.4.c Demonstrate effective oral communication skills.

BMM.HS.8.4.d Demonstrate preparation and organization of thoughts before speaking (outline, notes).

BMM.HS.8.5 Demonstrate technology and employability skills to enhance communication.

BMM.HS.8.5.a Apply the critical-thinking and career readiness skills needed to function in multiple roles in business and communities.

BMM.HS.8.5.b Analyze legal and ethical issues in organizations and society.

BMM.HS.8.5.c Demonstrate the proper etiquette used in a professional setting (e.g., professional language, device usage, and privacy) and use of technology tools, such as voice mail, video conferencing, social media, messaging, and mobile devices.

BMM.HS.8.5.d Examine perspectives and opinions of diverse employees and how these factors impact communication.

BMM.HS.8.5.e Identify appropriate spoken and written actions when applying for and leaving a job.

FOUNDATIONS OF COMPUTING

COURSE DESCRIPTION

Foundations of Computing is designed for students who have never programmed before and serves as a starting point for Computer Science. Students will explore the impact of computing on society. Beyond learning the fundamentals of programming, students build computational-thinking skills by applying computer science to collaboration tools, modeling and simulation, and data analysis.

STANDARDS AND INDICATORS:

CIS.HS.8.1 Summarize computational problems.

CIS.HS.8.1.a	Identify component parts or subproblems of a simple problem.
CIS.HS.8.1.b	Identify subproblems that make up a larger computational problem.
CIS.HS.8.1.c	Explain how solutions to multiple subproblems work together to solve a larger problem.
CIS.HS.8.1.d	Define the term algorithm and explain its relationship to computational solutions.

CIS.HS.8.2 Develop and use abstractions in computational artifacts.

CIS.HS.8.2.a	Define abstraction in terms of computer science and provide an example of how abstraction is used to manage complexity.
CIS.HS.8.2.b	Represent equivalent data using different encoding schemes (e.g., binary, unicode, Morse code, student-created codes).
CIS.HS.8.2.c	Use abstraction to manage complexity or avoid duplication of effort.
CIS.HS.8.2.d	Use and extend existing procedures within a program based on their documentation.
CIS.HS.8.2.e	Identify repetitive elements of program code and develop functionally equivalent versions that reduce redundant code or hide the complexity of a task.

FOUNDATIONS OF COMPUTING (cont.)

CIS.HS.8.3 Create computational artifacts.

CIS.HS.8.3.a Create variables to store data in a program.

CIS.HS.8.3.b Use and update data stored in variables.

CIS.HS.8.3.c Develop programs that use sequences of statements, loops, and conditional statements.

CIS.HS.8.3.d Design and develop computational artifacts that address personally- or socially relevant concerns.

CIS.HS.8.4 Use data to understand and model real-world situations.

CIS.HS.8.4.a Filter or transform data using a computational tool.

CIS.HS.8.4.b Explain the results of a data-driven investigation and a reproducible process for computing the results.

CIS.HS.8.4.c Use and modify a computer simulation to understand a real-world system.

CIS.HS.8.4.d Adjust inputs to an existing simulation to gain additional insights.

CIS.HS.8.5 Test and iteratively refine computational solutions.

CIS.HS.8.5.a Describe an iterative design process used in creating computational artifacts.

CIS.HS.8.5.b Apply an iterative design process to solve problems, both independently and collaboratively.

CIS.HS.8.5.c Locate and diagnose errors in program code.

CIS.HS.8.5.d Correct errors in program code.

IT FUNDAMENTALS

COURSE DESCRIPTION

IT Fundamentals develops the students' abilities to analyze, evaluate, strategize, and reflect upon technologies such as computer hardware, computer software, web technologies, databases, networking, security, and software development. Students will also be introduced to ever-changing information technology careers along with developing positive and ethical behaviors/practices.

STANDARDS AND INDICATORS:

CIS.HS.12.1 Identify and describe the basic components of information technology.

- CIS.HS.12.1.a Identify and distinguish the differences between input and output devices.
- CIS.HS.12.1.b Identify and explain how various components meet the needs of the user.
- CIS.HS.12.1.c Identify and analyze emerging technologies.
- CIS.HS.12.1.d Identify storage options.
- CIS.HS.12.1.e Identify the process to configure permissions for files and folders.
- CIS.HS.12.1.f Explain multiple methods of moving digital files.

CIS.HS.12.2 Identify and analyze hardware components.

- CIS.HS.12.2.a Identify the correct hardware to connect with external components.
- CIS.HS.12.2.b Determine and evaluate recommended hardware devices to solve specific problems.
- CIS.HS.12.2.c Troubleshoot basic computer hardware problems.
- CIS.HS.12.2.d Find and analyze resources to answer basic troubleshooting questions.
- CIS.HS.12.2.e Develop criteria for purchasing or upgrading computer system hardware.
- CIS.HS.12.2.f Identify and analyze proper input technologies for various tasks.

IT FUNDAMENTALS (cont.)

CIS.HS.12.3 Identify and analyze software components.

CIS.HS.12.3.a	Identify and analyze software appropriate for specific tasks.
CIS.HS.12.3.b	Research and analyze software installation and upgrade options.
CIS.HS.12.3.c	Troubleshoot potential problems with software installation (i.e. bloatware).
CIS.HS.12.3.d	Compare and contrast the functions, features, and limitations of different operating systems and utilities (i.e.,open source and mobile proprietary operating systems).

CIS.HS.12.4 Explain web technologies.

CIS.HS.12.4.a	Identify the components (e.g., wires, cables, routers, etc.) that make up the Internet.
CIS.HS.12.4.b	Describe the types of Internet connections.
CIS.HS.12.4.c	Explain Transmission Control Protocol/Internet Protocol (TCP/IP).
CIS.HS.12.4.d	Identify and compare different types of web technologies: blogs, wikis, podcasts, RSS feeds, etc.
CIS.HS.12.4.e	Explain browser cache and the process of clearing it.

CIS.HS.12.5 Design, administer, and deploy networks.

CIS.HS.12.5.a	Define basic networking terminology.
CIS.HS.12.5.b	Describe the characteristics and uses of networks, network devices, and components.
CIS.HS.12.5.c	Identify the purpose of networks and their functionality.
CIS.HS.12.5.d	Identify tools, diagnostic procedures, and troubleshooting techniques for networks.
CIS.HS.12.5.e	Describe the process of configuring, optimizing, and upgrading of networks.
CIS.HS.12.5.f	Explore and use cloud computing.
CIS.HS.12.5.g	Research and analyze basic network security solutions.
CIS.HS.12.5.h	Design a theoretical network environment and create protocols on deploying and maintaining the network.

IT FUNDAMENTALS (cont.)

CIS.HS.12.6 Apply database management strategies.

CIS.HS.12.6.a	Design and create database tables and relationships.
CIS.HS.12.6.b	Create database columns and specify properties.
CIS.HS.12.6.c	Name tables and fields in conformance with naming conventions.
CIS.HS.12.6.d	Insert, update, and delete records in a database.
CIS.HS.12.6.e	Import data into databases and transfer data between databases.
CIS.HS.12.6.f	Organize and store database files in a structured environment for users.
CIS.HS.12.6.g	Control user access to data and log access to the database by user and type of transaction.
CIS.HS.12.6.h	Backup, verify, and recover data in a database.
CIS.HS.12.6.i	Generate and print forms, reports, and results of queries (i.e., calculated fields, functions).

CIS.HS.12.7 Design, develop, test, and implement programs.

CIS.HS.12.7.a	Identify and define programming terminology.
CIS.HS.12.7.b	Explain the importance of life-long learning as a programmer.
CIS.HS.12.7.c	Analyze the strengths and weaknesses of different languages for solving a specific problem.
CIS.HS.12.7.d	Write code that uses logical operators (e.g., and, or, not, loops).
CIS.HS.12.7.e	Write code that uses conditional control structures (e.g., if, if-then-else).
CIS.HS.12.7.f	Test and debug code.
CIS.HS.12.7.g	Identify and analyze protocols to maintain the integrity of programs.

IT FUNDAMENTALS (cont.)

CIS.HS.12.8 Assess protocols for security and risk management.

CIS.HS.12.8.a	Identify the goals, objectives, and purposes of cybersecurity first principles.
CIS.HS.12.8.b	Identify different types of security threats and vulnerabilities.
CIS.HS.12.8.c	Identify and analyze policies procedures for security, privacy, and risk management.
CIS.HS.12.8.d	Explain intellectual property laws (e.g., copyright, trademark).
CIS.HS.12.8.e	Identify and analyze confidentiality concerns.
CIS.HS.12.8.f	Discuss risk loss and prevention methods.
CIS.HS.12.8.g	Analyze and evaluate passwords.
CIS.HS.12.8.h	Identify personal risks and create personal protocols to differentiate between home and work.

CIS.HS.12.9 Identify opportunities in an information technology career field.

CIS.HS.12.9.a	Identify information technologies used in various industries.
CIS.HS.12.9.b	Discuss the impact of technology on all career fields.
CIS.HS.12.9.c	Identify common tasks within the information technology career fields in occupations.
CIS.HS.12.9.d	Discuss career opportunities in information technology career fields.
CIS.HS.12.9.e	Describe the impact of technological change and the importance of lifelong learning in this career field.

COMPUTER SCIENCE PRINCIPLES - (1 YEAR)

COURSE DESCRIPTION

Computer Science Principles introduces students to the foundations of computer science with a focus on how computing powers the world. Along with the fundamentals of computing, students will learn to analyze data, create technology that has a practical impact (addresses a real-world problem or need), and gain a broader understanding of how computer science impacts people and society.

STANDARDS AND INDICATORS:

CIS.HS.2.1 Identify and develop computational problems and solutions.

CIS.HS.2.1.a	Utilize user-centered research and a development process to create innovative software solutions.
CIS.HS.2.1.b	Describe the identified algorithms using foundational principles of sequence, iteration, and selection with "non-code" techniques (e.g., pseudo code, flow charts, and sequence diagrams).
CIS.HS.2.1.c	Analyze the difference between algorithms that run in a reasonable amount of time, those that do not run in a reasonable amount of time, and those that are not solvable with a computer.
CIS.HS.2.1.d	Identify patterns between previously-solved computational problems and new problem scenarios.
CIS.HS.2.1.e	Describe linear and binary search techniques and explain their appropriateness for a given data set.
CIS.HS.2.1.f	Design a solution to a computational problem as a team.
CIS.HS.2.1.g	Explain how collaboration impacts the development of a solution.

COMPUTER SCIENCE PRINCIPLES (cont.)

CIS.HS.2.2 Construct abstractions in computational artifacts.

CIS.HS.2.2.a	Define how the term abstraction is used within the field of computer science.
CIS.HS.2.2.b	Deconstruct a complex problem into distinct functional parts using predefined constructs of a programming language (e.g., functions, procedures, and methods).
CIS.HS.2.2.c	Develop procedures or functions that use parameters to generalize behaviors in a program.
CIS.HS.2.2.d	Create an abstraction of data in order to manage problem complexity (e.g., using a list instead of multiple discrete variables).
CIS.HS.2.2.e	Investigate the advantages of a given data abstraction over others to manage complexity and/or readability in a program.
CIS.HS.2.2.f	Explain how modeling and simulation can be used to explore natural phenomena.

CIS.HS.2.3 Create computational artifacts.

CIS.HS.2.3.a	Create programs that demonstrate concepts of sequence, selection, and iteration.
CIS.HS.2.3.b	Develop programs with nested loops and/or nested conditionals.
CIS.HS.2.3.c	Implement interactive programs that process user input and/or respond to events in the system.
CIS.HS.2.3.d	Develop programs that use lists or other collection types to hold or manage data.
CIS.HS.2.3.e	Integrate grade-level-appropriate mathematical techniques, concepts, and processes in the creation of computing artifacts.
CIS.HS.2.3.f	Analyze and interpret documentation for functions and use them as part of a computational artifact.

COMPUTER SCIENCE PRINCIPLES (cont.)

CIS.HS.2.4 Use data to understand and model real-world situations.

CIS.HS.2.4.a	Explain how abstractions on binary numbers are used to represent and store various kinds of data in computer systems (e.g., hexadecimal color codes, Unicode characters, audio, and videos).
CIS.HS.2.4.b	Convert numbers between binary, decimal, and hexadecimal.
CIS.HS.2.4.c	Analyze the tradeoffs among various representations of a type of digital information (e.g., lossy versus lossless compression, encrypted vs. unencrypted, various image representations).
CIS.HS.2.4.d	Describe techniques for extracting information from data and identify common challenges with data processing.
CIS.HS.2.4.e	Use a computational tool to collect, transform, and analyze data to gain new insights and knowledge from the data.

CIS.HS.2.5 Evaluate and interpret representations of algorithms.

CIS.HS.2.5.a	Predict the output/effect of a code segment or program.
CIS.HS.2.5.b	Explain how a code segment or program functions both verbally and in writing.
CIS.HS.2.5.c	Identify and correct errors in algorithms and programs, including error discovery through testing.
CIS.HS.2.5.d	Reason about diagrammatic representations of algorithms and logic expressions, including flow charts.

COMPUTER SCIENCE PRINCIPLES (cont.)

CIS.HS.2.6 Explain how networks and computing systems work to transfer data.

CIS.HS.2.6.a Define basic components of computer networks.

CIS.HS.2.6.b Explain how data is sent through the Internet via packets.

CIS.HS.2.6.c Describe properties of redundancy and fault tolerance in systems/networks like the Internet.

CIS.HS.2.6.d Differentiate between sequential, parallel, and distributed computing approaches.

CIS.HS.2.7 Analyze the social impacts of technology and describe ethical IT practices.

CIS.HS.2.7.a Interpret potential beneficial and harmful effects of computing innovations.

CIS.HS.2.7.b Explain multiple causes for the digital divide and its impacts on society.

CIS.HS.2.7.c Describe how algorithms may result in both intentional and unintentional bias.

CIS.HS.2.7.d Investigate how computing innovations can have legal and ethical implications.

CIS.HS.2.7.e Identify safe computing practices and how they address common vulnerabilities.

COMPUTER SCIENCE A - (1 YEAR)

COURSE DESCRIPTION

"Computer Science A introduces students to computer science through programming. Fundamental topics in this course include the design of solutions to problems, the use of data structures to organize large sets of data, the development and implementation of algorithms to process data and discover new information, the analysis of potential solutions, and the ethical and social implications of computing systems. The course emphasizes object-oriented programming and design".

-College Board, 2020, Page 7

STANDARDS AND INDICATORS:

CIS.HS.3.1 Define a computational problems and solve it.

CIS.HS.3.1.a	Define examples of computationally solvable problems and difficult-to-solve problems.
CIS.HS.3.1.b	Decompose a large-scale computational problem by identifying generalizable patterns.
CIS.HS.3.1.c	Determine code that would be used to complete code segments.
CIS.HS.3.1.d	Determine the efficiency of a program.

CIS.HS.3.2 Interpret existing code written with the Advanced Placement language subset.

CIS.HS.3.2.a	Determine the result or output of code execution, including code with and without method or function calls.
CIS.HS.3.2.b	Evaluate logical expressions to determine their resulting values.
CIS.HS.3.2.c	Predict the output of code that uses collections and multidimensional collections of data.
CIS.HS.3.2.d	Trace code involving hierarchies of classes to demonstrate how inheritance influences program behavior.
CIS.HS.3.2.e	Interpret documentation and/or a program description in order to write code that satisfies all conditions and requirements described.
CIS.HS.3.2.f	Explain common errors that will occur in given erroneous examples (e.g. null pointers, bounds exceptions, arithmetic errors, logic errors, stack overflows).
CIS.HS.3.2.g	Define recursion and diagram the behavior of a recursive function.

COMPUTER SCIENCE A (cont.)

CIS.HS.3.3 Write and implement program code with the AP language subset.

CIS.HS.3.3.a	Develop programs involving statements, logical expressions, conditionals, and iteration to satisfy design specifications.
CIS.HS.3.3.b	Process user input using an appropriate technique to solve a problem.
CIS.HS.3.3.c	Represent nested iterative and branching logical processes by using appropriate control structures.
CIS.HS.3.3.d	Write programs that organize and manipulate data in collections and multidimensional collections in order to solve a problem.
CIS.HS.3.3.e	Resolve errors in code using compiler and run-time error messages.

CIS.HS.3.4 Model real-world situations using data.

CIS.HS.3.4.a	Select appropriate data types for variables based on the needs of the problem.
CIS.HS.3.4.b	Convert extracted data to the appropriate data type for computation or storage (e.g., type casting, parsing, etc.).
CIS.HS.3.4.c	Manage numeric data types in calculations to account for floating point error and loss of precision.
CIS.HS.3.4.d	Extract relevant information from a string of text using parsing techniques within a program.
CIS.HS.3.4.e	Apply data sorting and searching algorithms in different contexts.
CIS.HS.3.4.f	Write a program that uses data analysis techniques to identify significant patterns in complex systems.
CIS.HS.3.4.g	Justify which collection type is appropriate for a given problem.

COMPUTER SCIENCE A (cont.)

CIS.HS.3.5 Develop and use abstractions in programs to promote code modularity

CIS.HS.3.5.a	Create programs using standard language-specific libraries including those explicitly identified in the Advanced Placement language subset.
CIS.HS.3.5.b	Evaluate procedural abstractions in terms of properties like efficiency, correctness, and readability.
CIS.HS.3.5.c	Define basic object-oriented concepts of encapsulation and information hiding and explain how they promote modularity.
CIS.HS.3.5.d	Implement object-oriented computer programs containing multiple student-designed classes.
CIS.HS.3.5.e	Explain is-a and has-a relationships between different data types and give examples of where each could be used within a program.
CIS.HS.3.5.f	Devise an algorithm that models a real-world phenomenon and implement it in code.

SOFTWARE DEVELOPMENT

COURSE DESCRIPTION

Software Development is intended as a integrative course in computer science and engineering programs of study. It is a research, design, and development course in which students work in groups to design, develop, and deploy an original solution to a valid, open-ended technical problem by applying a software lifecycle process. The course applies and concurrently develops secondary-level knowledge and skills in mathematics, science, technology, and other related areas.

STANDARDS AND INDICATORS:

CIS.HS.16.1 Define computational problems and solutions.

- CIS.HS.16.1.a Employ user-centered research techniques to investigate the needs of one or more stakeholder groups.
- CIS.HS.16.1.b Identify and design multiple potential computational solutions to a given problem.

CIS.HS.16.2 Develop abstractions in computational artifacts.

- CIS.HS.16.2.a Design and evaluate the components of computational solution to an identified problem.
- CIS.HS.16.2.b Use functional decomposition techniques to develop the framework for a computational solution.
- CIS.HS.16.2.c Critique similar solutions or existing components of a solution to problems that have the potential for reuse in a new solution.

CIS.HS.16.3 Create computational artifacts as part of a team.

- CIS.HS.16.3.a Apply knowledge of computational tools and programming language(s) to select components needed to implement a solution for a user audience.
- CIS.HS.16.3.b Integrate computational components into a solution to the identified problem.
- CIS.HS.16.3.c Use version control systems, integrated development environments (IDEs), and collaborative tools and practices (code documentation) in a group software project.
- CIS.HS.16.3.d Define the components and structure of a standard software lifecycle process (e.g., waterfall, spiral, agile).
- CIS.HS.16.3.e Demonstrate software lifecycle processes while participating on software project teams.

SOFTWARE DEVELOPMENT (cont.)

CIS.HS.16.4 Test computational solutions.

CIS.HS.16.4.a Develop a series of test cases to verify that a program performs according to its design specifications.

CIS.HS.16.4.b Evaluate programs using debugging techniques and test cases to ensure correctness of code.

CIS.HS.16.4.c Determine appropriate data collection techniques and use them to evaluate the usability, functionality, and user experience of a computational solution with stakeholders.

CIS.HS.16.4.d Use evidence and prioritize additional features and defects that should be addressed in subsequent development cycles.

CIS.HS.16.5 Apply social and ethical impacts of computing.

CIS.HS.16.5.a Identify potential threats or unintended consequences of the current iteration of a software solution.

CIS.HS.16.5.b Justify how the current version of a solution guards against external threats, bias, malicious uses, or unintended consequences.

CIS.HS.16.5.c Compare and contrast various software licensing schemes (e.g., open source, freeware, commercial).

CIS.HS.16.5.d Evaluate licenses that limit or restrict use of computational artifacts when reusing code or using resources such as libraries.

CIS.HS.16.5.e Justify an appropriate software licensing scheme for a particular computational artifact.

CIS.HS.16.5.f Demonstrate ethical attribution and adherence to applicable intellectual property licensing while using third party resources in a software solution.

SOFTWARE DEVELOPMENT (cont.)

CIS.HS.16.6 Communicate about computational artifacts and computational understandings.

CIS.HS.16.6.a	Develop and deploy a communication plan to communicate project progress with external stakeholders.
CIS.HS.16.6.b	Provide justifications for design decisions and the effect they will have on the final product.
CIS.HS.16.6.c	Present periodic updates on the development process to classmates and other stakeholders.
CIS.HS.16.6.d	Evaluate key qualities of a program through a process such as a code review.
CIS.HS.16.6.e	Communicate the final outcomes of the software solution, development process, intended use, and future development plans using an appropriate modality (e.g., portfolios, presentations).

INFORMATION TECHNOLOGY APPLICATIONS II

COURSE DESCRIPTION

This course will focus on skill development in data science using word processing, spreadsheets, databases, and integration of applications utilizing advanced features. Students taking both Information Technology Applications I and II may be eligible for dual credit at a participating postsecondary institution. Skills, standards, and coursework align with industry certifications.

STANDARDS AND INDICATORS:

CIS.HS.11.1 Organize, aggregate, and manipulate data using advanced word processing features.

CIS.HS.11.1.a	Integrate other program files into word processing documents (insert, embed, and link).
CIS HS.11.1.b	Create and format tables using advanced features (formulas, styles).
CIS HS.11.1.c	Use advanced merge features to integrate spreadsheet and database information into the word processing document as fields and records.
CIS.HS.11.1.d	Create and manage styles.
CIS.HS.11.1.e	Plan, record, run, and edit Macros.

CIS.HS.11.2 Organize, aggregate, and manipulate data using advanced spreadsheet features.

CIS.HS.11.2.a	Create worksheet structures using formulas and advanced features. (e.g., logical statements, vLookup, financial, statistical functions, and named ranges).
CIS.HS.11.2.b	Interpret data through statistical analysis (e.g., sorting, filtering, forecasting, and pivot tables).
CIS.HS.11.2.c	Import, export, and share worksheet data.
CIS.HS.11.2.d	Customize formatting methods, including conditional formatting and other advanced formatting methods.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.3 Synthesize relational database concepts to design, manage, evaluate, and organize information.

CIS.HS.11.3.a Design tables specifying properties for data entry and relationships.

CIS.HS.11.3.b Construct multi-table queries to retrieve, organize, and aggregate data to draw conclusions.

CIS.HS.11.3.c Design forms and subforms for efficient and effective data entry or retrieval.

CIS.HS.11.3.d Design reports and subreports utilizing tables, graphs, sparklines, and pivot tables for displaying meaningful data.

CIS.HS.11.3.e Analyze relational data using Structure Query Language (SQL).

CIS.HS.11.4 Consider the relationship between different programs to utilize data in one program to the next to create new documents.

CIS.HS.11.4.a Utilize spreadsheets, presentation, and database information in word processing documents.

CIS.HS.11.4.b Utilize word processing, presentation, and database information in a spreadsheet.

CIS.HS.11.4.c Utilize word processing, spreadsheet, and database information in a presentation.

CIS.HS.11.4.d Utilize word processing and spreadsheet information in a database.

CIS.HS.11.5 Describe the importance of ethical data collection and applicable conclusions.

CIS.HS.11.5.a Analyze the privacy practices of data collection and use.

CIS.HS.11.5.b Analyze the security practices of data collection and use.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.6 Demonstrate critical thinking skills to integrate information technology tools to access, manage, and create new information.

CIS.HS.11.6.a Gather, evaluate, use, and disseminate information from multiple technology sources.

CIS.HS.11.6.b Create purposeful, digitally designed products (e.g., brochure, presentation, website, portfolio).

CIS.HS.11.7 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.11.7.a Identify information technologies used in various industries.

CIS.HS.11.7.b Discuss the impact of technology on all career fields.

CIS.HS 11.7.c Identify common tasks in career fields.

CIS.HS 11.7.d Discuss career opportunities in information technology career fields.

CIS.HS.11.7.e Describe the impact of technological change and the importance of lifelong learning in this career field.

CIS.HS.11.7.f Identify the benefits of industry certification and higher education programs.

CIS.HS.11.7.g Identify the necessary skills to succeed in fields using data science.

DATA LITERACY AND VISUALIZATION

COURSE DESCRIPTION

This course provides an introduction to data literacy and visualization. The course focuses on practical applications of data analysis to give students concrete and applicable skills. Students will learn how to ask and answer questions with data and communicate the results to various audiences. The course also emphasizes the ethical implications of data collection and use.

STANDARDS AND INDICATORS:

CIS.HS.5.1 Collect and describe data.

CIS.HS.5.1.a	List and give examples of data types/formats (e.g., ordinal, ratio/interval, categorical, text, images).
CIS.HS.5.1.b	Recognize and define diverse sources of data.
CIS.HS.5.1.c	Identify ethical issues with data collection.
CIS.HS.5.1.d	Summarize a data set including properties of the data.
CIS.HS.5.1.e	Recognize outliers in data.
CIS.HS.5.1.f	Demonstrate appropriate course of action to handle outliers in data.
CIS.HS.5.1.g	Identify issues of representation in data and data collection, including sampling bias within broader populations.
CIS.HS.5.1.h	Describe distributions and Identify common shapes of data plots (e.g., normal curve, poisson).

DATA LITERACY AND VISUALIZATION (cont.)

CIS.HS.5.2 Analyze data

CIS.HS.5.2.a	Transform raw data from one form to another (e.g., numeric data to categorical).
CIS.HS.5.2.b	Explain and compute appropriate summary data statistics for the data.
CIS.HS.5.2.c	Use computational tools to explore relationships between variables using basic inferential statistics (e.g., correlation, t-tests, chi square).
CIS.HS.5.2.d	Identify the appropriate analysis to answer a question using data.
CIS.HS.5.2.e	Merge related data sets.

CIS.HS.5.3 Interpret data to provide greater understanding of information.

CIS.HS.5.3.a	Use results of data analysis to answer questions.
CIS.HS.5.3.b	Explain the results of a statistical analysis in light of the context of the data.
CIS.HS.5.3.c	Form and justify conclusions derived from data analysis.
CIS.HS.5.3.d	Identify threats to the interpretation of data analysis (e.g., validity, reliability, overgeneralization).

CIS.HS.5.4 Communicate data and results of analysis

CIS.HS.5.4.a	Recognize and define the elements of effective data display.
CIS.HS.5.4.b	Analyze multiple methods of representing data and justify how a representation effectively communicates a result to an intended audience.
CIS.HS.5.4.c	Use software tools to create effective visualizations of data (e.g., heat maps, scatter plots, radial graphs, etc.).
CIS.HS.5.4.d	Communicate results of data analysis to stakeholders and other audiences.
CIS.HS.5.4.e	Identify misconceptions that may arise from alternate visualizations/ representations of data.

DATA LITERACY AND VISUALIZATION (cont.)

CIS. HS 5.5 Describe how data can be used to create value for organizations and individuals.

CIS.HS.5.5.a	Identify questions that can be asked from a data set and, given a question, identify what data is needed to answer the question.
CIS.HS.5.5.b	Explain the implications of data analysis in making strategic decisions.
CIS.HS.5.5.c	Identify ethical issues with how data is collected and stored.
CIS.HS.5.5.d	Describe the difference between data privacy and data security, and how to protect both.
CIS.HS.5.5.e	Explain how data transparency can lead to replicability and identify potential concerns regarding sharing data.
CIS.HS.5.5.f	Identify how organizations collect data and meta-data and the implications for individual privacy and for organizational value.

INTRODUCTION TO DATA SCIENCE

COURSE DESCRIPTION

This course introduces data science concepts and skills at the intersection of data analysis, computer and information sciences, and mathematics. Students will work with large, real-world datasets, deploy statistical modeling techniques to make predictions based on that data, and communicate the results of their analyses. The course also critically considers the societal applications, implications, and ethics of data science.

STANDARDS AND INDICATORS:

CIS.HS.13.1 Acquire, Store, and Clean Data.

CIS.HS.13.1.a	Implement diverse methods of collecting data and recognize the implications of each method.
CIS.HS.13.1.b	Identify reliable sources of public data and use the data from them.
CIS.HS.13.1.c	Apply appropriate data cleaning techniques to handle messy data (e.g., missing values, errors, heterogeneous values, outliers, etc.).
CIS.HS.13.1.d	Determine potential ethical implications of various sources and forms of data acquisition (e.g,. Segmentation and demographic-based targeting).
CIS.HS.13.1.e	Organize data using a software tool for later retrieval and/or analysis (e.g., relational databases).
CIS.HS.13.1.f	Manipulate data to facilitate analysis (e.g., subset, reshape, classify).

INTRODUCTION TO DATA SCIENCE (cont.)

CIS.HS.13.2 Create models and draw statistical inferences from data.

- CIS.HS.13.2.a Transform raw data into actionable results (e.g., scoring and ranking).
- CIS.HS.13.2.b Use computational tools to understand and model the relationships between multiple variables.
- CIS.HS.13.2.c Use data to predict future observations.
- CIS.HS.13.2.d Analyze large and/or unstructured data.
- CIS.HS.13.2.e Explain the basic mechanics of clustering algorithms and supervised/unsupervised learning from data.

CIS.HS.13.3 Evaluate the results of data analysis.

- CIS.HS.13.3.a Generate and test hypotheses.
- CIS.HS.13.3.b Evaluate the outcomes of data predictions.
- CIS.HS.13.3.c Draw and justify conclusions using inferential analysis of data.
- CIS.HS.13.3.d Make recommendations for future action based on the results of data analysis.
- CIS.HS.13.3.e Identify flaws or limitations in the results of data analysis and their implications.

CIS.HS.13.4 Represent and communicate data and results of analysis.

- CIS.HS.13.4.a Use computational tools to generate effective data visualizations, including spatial data.
- CIS.HS.13.4.b Derive meaning from and summarize interactive visualizations of data.
- CIS.HS.13.4.c Justify the efficacy of different visualizations for communicating data.
- CIS.HS.13.4.d Analyze statistical representations to identify patterns and develop insight about data.
- CIS.HS.13.4.e Communicate results of data analysis to various audiences.
- CIS.HS.13.4.f Create and interpret visualizations of real-world processes as captured by data.

INTRODUCTION TO DATA SCIENCE (cont.)

CIS.HS.13.5 Explain the ethics and societal implications of data.

CIS.HS.13.5.a	Explain ways in which data use and analysis can benefit or threaten organizations and society.
CIS.HS.13.5.b	Describe applications and implications of artificial intelligence and automated decision making in society.
CIS.HS.13.5.c	Identify ethical and legal issues in data collection, handling, use, and retention (e.g., the CIA Triad, human subjects data, HIPAA, etc.).
CIS.HS.13.5.d	Assess tradeoffs between individual privacy and organizational/societal value arising from large-scale data collection and analysis.
CIS.HS.13.5.e	Discuss the implications of algorithmic bias and automated inequality on society.

IT FUNDAMENTALS

COURSE DESCRIPTION

IT Fundamentals develops the students' abilities to analyze, evaluate, strategize, and reflect upon technologies such as computer hardware, computer software, web technologies, databases, networking, security, and software development. Students will also be introduced to ever-changing information technology careers along with developing positive and ethical behaviors/practices.

STANDARDS AND INDICATORS:

CIS.HS.12.1 Identify and describe the basic components of information technology.

- CIS.HS.12.1.a Identify and distinguish the differences between input and output devices.
- CIS.HS.12.1.b Identify and explain how various components meet the needs of the user.
- CIS.HS.12.1.c Identify and analyze emerging technologies.
- CIS.HS.12.1.d Identify storage options.
- CIS.HS.12.1.e Identify the process to configure permissions for files and folders.
- CIS.HS.12.1.f Explain multiple methods of moving digital files.

CIS.HS.12.2 Identify and analyze hardware components.

- CIS.HS.12.2.a Identify the correct hardware to connect with external components.
- CIS.HS.12.2.b Determine and evaluate recommended hardware devices to solve specific problems.
- CIS.HS.12.2.c Troubleshoot basic computer hardware problems.
- CIS.HS.12.2.d Find and analyze resources to answer basic troubleshooting questions.
- CIS.HS.12.2.e Develop criteria for purchasing or upgrading computer system hardware.
- CIS.HS.12.2.f Identify and analyze proper input technologies for various tasks.

IT FUNDAMENTALS (cont.)

CIS.HS.12.3 Identify and analyze software components.

CIS.HS.12.3.a Identify and analyze software appropriate for specific tasks.

CIS.HS.12.3.b Research and analyze software installation and upgrade options.

CIS.HS.12.3.c Troubleshoot potential problems with software installation (i.e. bloatware).

CIS.HS.12.3.d Compare and contrast the functions, features, and limitations of different operating systems and utilities (i.e.,open source and mobile proprietary operating systems).

CIS.HS.12.4 Explain web technologies.

CIS.HS.12.4.a Identify the components (e.g., wires, cables, routers, etc.) that make up the Internet.

CIS.HS.12.4.b Describe the types of Internet connections.

CIS.HS.12.4.c Explain Transmission Control Protocol/Internet Protocol (TCP/IP).

CIS.HS.12.4.d Identify and compare different types of web technologies: blogs, wikis, podcasts, RSS feeds, etc.

CIS.HS.12.4.e Explain browser cache and the process of clearing it.

CIS.HS.12.5 Design, administer, and deploy networks.

CIS.HS.12.5.a Define basic networking terminology.

CIS.HS.12.5.b Describe the characteristics and uses of networks, network devices, and components.

CIS.HS.12.5.c Identify the purpose of networks and their functionality.

CIS.HS.12.5.d Identify tools, diagnostic procedures, and troubleshooting techniques for networks.

CIS.HS.12.5.e Describe the process of configuring, optimizing, and upgrading of networks.

CIS.HS.12.5.f Explore and use cloud computing.

CIS.HS.12.5.g Research and analyze basic network security solutions.

CIS.HS.12.5.h Design a theoretical network environment and create protocols on deploying and maintaining the network.

IT FUNDAMENTALS (cont.)

CIS.HS.12.6 Apply database management strategies.

CIS.HS.12.6.a	Design and create database tables and relationships.
CIS.HS.12.6.b	Create database columns and specify properties.
CIS.HS.12.6.c	Name tables and fields in conformance with naming conventions.
CIS.HS.12.6.d	Insert, update, and delete records in a database.
CIS.HS.12.6.e	Import data into databases and transfer data between databases.
CIS.HS.12.6.f	Organize and store database files in a structured environment for users.
CIS.HS.12.6.g	Control user access to data and log access to the database by user and type of transaction.
CIS.HS.12.6.h	Backup, verify, and recover data in a database.
CIS.HS.12.6.i	Generate and print forms, reports, and results of queries (i.e., calculated fields, functions).

CIS.HS.12.7 Design, develop, test, and implement programs.

CIS.HS.12.7.a	Identify and define programming terminology.
CIS.HS.12.7.b	Explain the importance of life-long learning as a programmer.
CIS.HS.12.7.c	Analyze the strengths and weaknesses of different languages for solving a specific problem.
CIS.HS.12.7.d	Write code that uses logical operators (e.g., and, or, not, loops).
CIS.HS.12.7.e	Write code that uses conditional control structures (e.g., if, if-then-else).
CIS.HS.12.7.f	Test and debug code.
CIS.HS.12.7.g	Identify and analyze protocols to maintain the integrity of programs.

IT FUNDAMENTALS (cont.)

CIS.HS.12.8 Assess protocols for security and risk management.

CIS.HS.12.8.a	Identify the goals, objectives, and purposes of cybersecurity first principles.
CIS.HS.12.8.b	Identify different types of security threats and vulnerabilities.
CIS.HS.12.8.c	Identify and analyze policies procedures for security, privacy, and risk management.
CIS.HS.12.8.d	Explain intellectual property laws (e.g., copyright, trademark).
CIS.HS.12.8.e	Identify and analyze confidentiality concerns.
CIS.HS.12.8.f	Discuss risk loss and prevention methods.
CIS.HS.12.8.g	Analyze and evaluate passwords.
CIS.HS.12.8.h	Identify personal risks and create personal protocols to differentiate between home and work.

CIS.HS.12.9 Identify opportunities in an information technology career field.

CIS.HS.12.9.a	Identify information technologies used in various industries.
CIS.HS.12.9.b	Discuss the impact of technology on all career fields.
CIS.HS.12.9.c	Identify common tasks within the information technology career fields in occupations.
CIS.HS.12.9.d	Discuss career opportunities in information technology career fields.
CIS.HS.12.9.e	Describe the impact of technological change and the importance of lifelong learning in this career field.

INFORMATION TECHNOLOGY APPLICATIONS II

COURSE DESCRIPTION

This course will focus on skill development in data science using word processing, spreadsheets, databases, and integration of applications utilizing advanced features. Students taking both Information Technology Applications I and II may be eligible for dual credit at a participating postsecondary institution. Skills, standards, and coursework align with industry certifications.

STANDARDS AND INDICATORS:

CIS.HS.11.1 Organize, aggregate, and manipulate data using advanced word processing features.

CIS.HS.11.1.a	Integrate other program files into word processing documents (insert, embed, and link).
CIS HS.11.1.b	Create and format tables using advanced features (formulas, styles).
CIS HS.11.1.c	Use advanced merge features to integrate spreadsheet and database information into the word processing document as fields and records.
CIS.HS.11.1.d	Create and manage styles.
CIS.HS.11.1.e	Plan, record, run, and edit Macros.

CIS.HS.11.2 Organize, aggregate, and manipulate data using advanced spreadsheet features.

CIS.HS.11.2.a	Create worksheet structures using formulas and advanced features. (e.g., logical statements, vLookup, financial, statistical functions, and named ranges).
CIS.HS.11.2.b	Interpret data through statistical analysis (e.g., sorting, filtering, forecasting, and pivot tables).
CIS.HS.11.2.c	Import, export, and share worksheet data.
CIS.HS.11.2.d	Customize formatting methods, including conditional formatting and other advanced formatting methods.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.3 Synthesize relational database concepts to design, manage, evaluate, and organize information.

CIS.HS.11.3.a Design tables specifying properties for data entry and relationships.

CIS.HS.11.3.b Construct multi-table queries to retrieve, organize, and aggregate data to draw conclusions.

CIS.HS.11.3.c Design forms and subforms for efficient and effective data entry or retrieval.

CIS.HS.11.3.d Design reports and subreports utilizing tables, graphs, sparklines, and pivot tables for displaying meaningful data.

CIS.HS.11.3.e Analyze relational data using Structure Query Language (SQL).

CIS.HS.11.4 Consider the relationship between different programs to utilize data in one program to the next to create new documents.

CIS.HS.11.4.a Utilize spreadsheets, presentation, and database information in word processing documents.

CIS.HS.11.4.b Utilize word processing, presentation, and database information in a spreadsheet.

CIS.HS.11.4.c Utilize word processing, spreadsheet, and database information in a presentation.

CIS.HS.11.4.d Utilize word processing and spreadsheet information in a database.

CIS.HS.11.5 Describe the importance of ethical data collection and applicable conclusions.

CIS.HS.11.5.a Analyze the privacy practices of data collection and use.

CIS.HS.11.5.b Analyze the security practices of data collection and use.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.6 Demonstrate critical thinking skills to integrate information technology tools to access, manage, and create new information.

CIS.HS.11.6.a Gather, evaluate, use, and disseminate information from multiple technology sources.

CIS.HS.11.6.b Create purposeful, digitally designed products (e.g., brochure, presentation, website, portfolio).

CIS.HS.11.7 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.11.7.a Identify information technologies used in various industries.

CIS.HS.11.7.b Discuss the impact of technology on all career fields.

CIS.HS 11.7.c Identify common tasks in career fields.

CIS.HS 11.7.d Discuss career opportunities in information technology career fields.

CIS.HS.11.7.e Describe the impact of technological change and the importance of lifelong learning in this career field.

CIS.HS.11.7.f Identify the benefits of industry certification and higher education Programs.

CIS.HS.11.7.g Identify the necessary skills to succeed in fields using data science.

CYBERSECURITY

COURSE DESCRIPTION

This is a survey course that explores fundamental knowledge and skills in the field of cybersecurity. Topics explored include cryptography, software and network vulnerabilities, governance, global impacts, and career fields in information assurance.

STANDARDS AND INDICATORS:

CIS.HS.4.1 Analyze classic and modern approaches to cryptography and cryptanalysis.

CIS.HS.4.1.a Describe the historical evolution of cryptography, encryption, and ciphers.

CIS.HS.4.1.b Explain the use of and mechanics behind public key encryption.

CIS.HS.4.1.c Demonstrate how common cipher algorithms operate on sample data.

CIS.HS.4.1.d Compare and contrast modern cryptographic techniques used to protect information in industry and government.

CIS.HS.4.1.e Describe vulnerabilities of common cipher algorithms and demonstrate cryptanalysis techniques to decrypt messages based on these vulnerabilities.

CIS.HS.4.2 Analyze the core components of network systems, including the internet, relative to network security concerns.

CIS.HS.4.2.a Differentiate between layers in the Open Systems Interconnection (OSI) model and explain how they work together to transmit data in networks.

CIS.HS.4.2.b Analyze potential indicators and metrics associated with common network attacks (e.g., rogue wireless access points, man-in-the-middle, DNS poisoning, DDos, Malicious code execution, etc.).

CIS.HS.4.2.c Propose a secure network architecture in response to a hypothetical scenario or set of design constraints (e.g. network segmentation, load balancing, network system access control, port security, wireless protocol configuration, etc.).

CIS.HS.4.2.d Summarize virtualization and cloud computing concepts and describe how Internet of Things devices work.

CIS.HS.4.2.e Use network reconnaissance and discovery tools to identify the properties and vulnerabilities of a network.

CYBERSECURITY (cont.)

CIS.HS.4.3 Explain the role of software in cybersecurity, including techniques to protect local host computers.

CIS.HS.4.3.a Explain the role of patching and software updates in reducing risk and compare the advantages and disadvantages of different patching strategies.

CIS.HS.4.3.b Propose and justify operating system configuration settings and policies to minimize security risks.

CIS.HS.4.3.c Analyze the tension between security and usability in software systems and describe how to minimize the impact of security policies on user experience.

CIS.HS.4.3.d Describe how scripting or other forms of automation are used to facilitate cyber attacks.

CIS.HS.4.3.e Identify abnormal indicators of software or computer performance that suggest the presence of a system attack or exploit.

CIS.HS.4.4 Identify and analyze applicable laws and policies, including principles of governance, risk, and compliance.

CIS.HS.4.4.a Analyze how social and cultural norms are mutually shaped by security policies and how this impacts both individuals and organizations.

CIS.HS.4.4.b Compare and contrast federal, state, local, and international cyber laws and regulations for individuals and businesses.

CIS.HS.4.4.c Illustrate examples of how local government decisions can impact global cybersecurity considerations.

CIS.HS.4.4.d Summarize risk management processes and concepts. (e.g., the NIST Cybersecurity Framework concepts identify, protect, detect, respond, recover).

CIS.HS.4.4.e Analyze the security policy of an enterprise environment and recommend appropriate security solutions.

CYBERSECURITY (cont.)

CIS.HS.4.5 Distinguish between data security concerns and practices.

CIS.HS.4.5.a Explain various interactions between confidentiality, integrity, and availability (i.e., "the CIA triad") for data in use, at rest, and in motion.

CIS.HS.4.5.b Explain the extent of individuals' digital footprints and discuss the potential implications thereof.

CIS.HS.4.5.c Determine and evaluate levels of access for various data classifications (e.g. confidential, private, public, sensitive, critical, proprietary).

CIS.HS.4.5.d Compare the advantages and tradeoffs of multiple authentication strategies.

CIS.HS.4.6 Identify threats, vulnerabilities and attacks that may be present in computing systems and assess their potential impacts on society.

CIS.HS.4.6.a Identify and differentiate between the different threat actors, vectors, and intelligence sources.

CIS.HS.4.6.b Identify and differentiate between the types of malware, web-based, and network attacks.

CIS.HS.4.6.c Categorize types of attacks and remedies based on their underlying similarities and differences.

CIS.HS.4.6.d Analyze system vulnerabilities, exploits, and payloads on a network (e.g. from MITRE ATT&CK® Framework), and describe potential countermeasures.

CIS.HS.4.6.e Explain how social engineering can be used to compromise individuals and organizations.

CIS.HS.4.7 Describe cybersecurity careers in a global economy.

CIS.HS.4.7.a Identify the role and responsibilities of cybersecurity professionals in diverse industries.

CIS.HS.4.7.b Map education and certification requirements to different cybersecurity careers.

CIS.HS.4.7.c Describe the impact of technological change and the importance of lifelong learning in a cybersecurity career.

CIS.HS.4.7.d Recognize the role of cybersecurity awareness in a multitude of careers.

NETWORKING

COURSE DESCRIPTION

This course is a study of the networking fundamentals in regards to managing home and corporate network systems and protocols. Students will design, plan, implement, and support computer networks. Students will also enhance problem solving, critical thinking, and analytical skills throughout this course.

STANDARDS AND INDICATORS:

CIS.HS.15.1 Explain network terminology and components.

- CIS.HS.15.1.a Define and analyze the abilities and features of a client.
- CIS.HS.15.1.b Define and analyze abilities and features of a server.
- CIS.HS.15.1.c Identify client and server functions.
- CIS.HS.15.1.d Describe how the Internet communicates through internet protocols and packets.
- CIS.HS.15.1.e Describe how routers work and how data routing helps to make the internet fault tolerant.

CIS.HS.15.2 Establish routines and procedures appropriate for network management.

- CIS.HS.15.2.a Identify hierarchies in networking file management systems.
- CIS.HS.15.2.b Describe permission issues related to file management systems.
- CIS.HS.15.2.c Use command prompt tools to access network information.
- CIS.HS.15.2.d Use the internet control message protocol to ping devices on a network.
- CIS.HS.15.2.e Exercise backup and system restoration.
- CIS.HS.15.2.f Configure a network to perform a specific function.
- CIS.HS.15.2.g Implement simple security administration.
- CIS.HS.15.2.h Perform user and group administration on a system.
- CIS.HS.15.2.i Create a virtual network environment.

NETWORKING (cont.)

CIS.HS.15.3 Apply and adapt network media and topologies to maintain a functional network.

CIS.HS.15.3.a	Describe basic network classifications, topologies, and network operating systems.
CIS.HS.15.3.b	Identify the characteristics and uses of network components (e.g., hub, switches, routers, firewall).
CIS.HS.15.3.c	Identify the characteristics of LAN transmission methods, standards, and protocols.
CIS.HS.15.3.d	Explain the difference between basic point-to-point (PTP) and point-to-multipoint (PTM) network topologies.
CIS.HS.15.3.e	Demonstrate (or map) the relationship between IP and DNS.
CIS.HS.15.3.f	Use the Developer Tools in an Internet browser to explore HTTP requests, status codes, and HTTP exchanges conducted over TCP/IP.
CIS.HS.15.3.g	Identify the basic capabilities of server operating systems.
CIS.HS.15.3.h	Identify the basic characteristics of WAN technologies.
CIS.HS.15.3.i	Identify the seven layers of the OSI model and their functions.
CIS.HS.15.3.j	Select the appropriate NIC and network configuration settings when given a network configuration.

CIS.HS.15.4 Distinguish the components and functions of network devices.

CIS.HS.15.4.a	Differentiate between major hardware components and their functions.
CIS.HS.15.4.b	Identify types of computer storage devices.
CIS.HS.15.4.c	Identify practices for hardware life cycle management.
CIS.HS.15.4.d	Analyze the cost/benefits of different networking system configurations and components.

NETWORKING (cont.)

CIS.HS.15.5 Plan, configure, and troubleshoot a network.

- CIS.HS.15.5.a Run computer diagnostics.
- CIS.HS.15.5.b Identify troubleshooting issues involving the boot process for a computer.
- CIS.HS.15.5.c Identify common symptoms and resolutions for hardware problems.
- CIS.HS.15.5.d Identify common symptoms and resolutions for software problems.
- CIS.HS.15.5.e Diagnose and resolve operating system problems with appropriate tools.

CIS.HS.15.6 Identify concepts of networking tools to manage and implement networks.

- CIS.HS.15.6.a Identify and describe the appropriate tools used by a technician.
- CIS.HS.15.6.b Describe the purpose of configuration management documentation.
- CIS.HS.15.6.c Predict the impact of a particular security implementation on network functionality when given a wiring task.
- CIS.HS.15.6.d Explain different methods and rationales of network performance optimization.
- CIS.HS.15.6.e Use the appropriate network monitoring resource to analyze traffic.

NETWORKING (cont.)

CIS.HS.15.7 Integrate security in the design and management of networks.

- CIS.HS.15.7.a Categorize different types of network security appliances and methods.
- CIS.HS.15.7.b Explain common threats, vulnerabilities, and mitigation techniques.
- CIS.HS.15.7.c Identify security protocols and describe their purpose and function.
- CIS.HS.15.7.d Define the function of remote access protocols and services.
- CIS.HS.15.7.e Explain the methods of network access security.
- CIS.HS.15.7.f Explain methods of user authentication.
- CIS.HS.15.7.g Identify the purpose, benefits, and characteristics of using a proxy.
- CIS.HS.15.7.h Implement appropriate wireless security measures.
- CIS.HS.15.7.i Install and configure a basic firewall.

CIS.HS.15.8 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

- CIS.HS.15.8.a Identify information technologies used in various industries.
- CIS.HS.15.8.b Discuss the impact of technology on all career fields.
- CIS.HS.15.8.c Identify common tasks in career fields.
- CIS.HS.15.8.d Discuss career opportunities in information technology career fields.
- CIS.HS.15.8.e Describe the impact of technological change and the importance of lifelong learning in this career field.

IT FUNDAMENTALS

COURSE DESCRIPTION

IT Fundamentals develops the students' abilities to analyze, evaluate, strategize, and reflect upon technologies such as computer hardware, computer software, web technologies, databases, networking, security, and software development. Students will also be introduced to ever-changing information technology careers along with developing positive and ethical behaviors/practices.

STANDARDS AND INDICATORS:

CIS.HS.12.1 Identify and describe the basic components of information technology.

- CIS.HS.12.1.a Identify and distinguish the differences between input and output devices.
- CIS.HS.12.1.b Identify and explain how various components meet the needs of the user.
- CIS.HS.12.1.c Identify and analyze emerging technologies.
- CIS.HS.12.1.d Identify storage options.
- CIS.HS.12.1.e Identify the process to configure permissions for files and folders.
- CIS.HS.12.1.f Explain multiple methods of moving digital files.

CIS.HS.12.2 Identify and analyze hardware components.

- CIS.HS.12.2.a Identify the correct hardware to connect with external components.
- CIS.HS.12.2.b Determine and evaluate recommended hardware devices to solve specific problems.
- CIS.HS.12.2.c Troubleshoot basic computer hardware problems.
- CIS.HS.12.2.d Find and analyze resources to answer basic troubleshooting questions.
- CIS.HS.12.2.e Develop criteria for purchasing or upgrading computer system hardware.
- CIS.HS.12.2.f Identify and analyze proper input technologies for various tasks.

IT FUNDAMENTALS (cont.)

CIS.HS.12.3 Identify and analyze software components.

CIS.HS.12.3.a	Identify and analyze software appropriate for specific tasks.
CIS.HS.12.3.b	Research and analyze software installation and upgrade options.
CIS.HS.12.3.c	Troubleshoot potential problems with software installation (i.e. bloatware).
CIS.HS.12.3.d	Compare and contrast the functions, features, and limitations of different operating systems and utilities (i.e.,open source and mobile proprietary operating systems).

CIS.HS.12.4 Explain web technologies.

CIS.HS.12.4.a	Identify the components (e.g., wires, cables, routers, etc.) that make up the Internet.
CIS.HS.12.4.b	Describe the types of Internet connections.
CIS.HS.12.4.c	Explain Transmission Control Protocol/Internet Protocol (TCP/IP).
CIS.HS.12.4.d	Identify and compare different types of web technologies: blogs, wikis, podcasts, RSS feeds, etc.
CIS.HS.12.4.e	Explain browser cache and the process of clearing it.

CIS.HS.12.5 Design, administer, and deploy networks.

CIS.HS.12.5.a	Define basic networking terminology.
CIS.HS.12.5.b	Describe the characteristics and uses of networks, network devices, and components.
CIS.HS.12.5.c	Identify the purpose of networks and their functionality.
CIS.HS.12.5.d	Identify tools, diagnostic procedures, and troubleshooting techniques for networks.
CIS.HS.12.5.e	Describe the process of configuring, optimizing, and upgrading of networks.
CIS.HS.12.5.f	Explore and use cloud computing.
CIS.HS.12.5.g	Research and analyze basic network security solutions.
CIS.HS.12.5.h	Design a theoretical network environment and create protocols on deploying and maintaining the network.

IT FUNDAMENTALS (cont.)

CIS.HS.12.6 Apply database management strategies.

CIS.HS.12.6.a	Design and create database tables and relationships.
CIS.HS.12.6.b	Create database columns and specify properties.
CIS.HS.12.6.c	Name tables and fields in conformance with naming conventions.
CIS.HS.12.6.d	Insert, update, and delete records in a database.
CIS.HS.12.6.e	Import data into databases and transfer data between databases.
CIS.HS.12.6.f	Organize and store database files in a structured environment for users.
CIS.HS.12.6.g	Control user access to data and log access to the database by user and type of transaction.
CIS.HS.12.6.h	Backup, verify, and recover data in a database.
CIS.HS.12.6.i	Generate and print forms, reports, and results of queries (i.e., calculated fields, functions).

CIS.HS.12.7 Design, develop, test, and implement programs.

CIS.HS.12.7.a	Identify and define programming terminology.
CIS.HS.12.7.b	Explain the importance of life-long learning as a programmer.
CIS.HS.12.7.c	Analyze the strengths and weaknesses of different languages for solving a specific problem.
CIS.HS.12.7.d	Write code that uses logical operators (e.g., and, or, not, loops).
CIS.HS.12.7.e	Write code that uses conditional control structures (e.g., if, if-then-else).
CIS.HS.12.7.f	Test and debug code.
CIS.HS.12.7.g	Identify and analyze protocols to maintain the integrity of programs.

IT FUNDAMENTALS (cont.)

CIS.HS.12.8 Assess protocols for security and risk management.

CIS.HS.12.8.a	Identify the goals, objectives, and purposes of cybersecurity first principles.
CIS.HS.12.8.b	Identify different types of security threats and vulnerabilities.
CIS.HS.12.8.c	Identify and analyze policies procedures for security, privacy, and risk management.
CIS.HS.12.8.d	Explain intellectual property laws (e.g., copyright, trademark).
CIS.HS.12.8.e	Identify and analyze confidentiality concerns.
CIS.HS.12.8.f	Discuss risk loss and prevention methods.
CIS.HS.12.8.g	Analyze and evaluate passwords.
CIS.HS.12.8.h	Identify personal risks and create personal protocols to differentiate between home and work.

CIS.HS.12.9 Identify opportunities in an information technology career field.

CIS.HS.12.9.a	Identify information technologies used in various industries.
CIS.HS.12.9.b	Discuss the impact of technology on all career fields.
CIS.HS.12.9.c	Identify common tasks within the information technology career fields in occupations.
CIS.HS.12.9.d	Discuss career opportunities in information technology career fields.
CIS.HS.12.9.e	Describe the impact of technological change and the importance of lifelong learning in this career field.

INFORMATION TECHNOLOGY APPLICATIONS II

COURSE DESCRIPTION

This course will focus on skill development in data science using word processing, spreadsheets, databases, and integration of applications utilizing advanced features. Students taking both Information Technology Applications I and II may be eligible for dual credit at a participating postsecondary institution. Skills, standards, and coursework align with industry certifications.

STANDARDS AND INDICATORS:

CIS.HS.11.1 Organize, aggregate, and manipulate data using advanced word processing features.

CIS.HS.11.1.a	Integrate other program files into word processing documents (insert, embed, and link).
CIS HS.11.1.b	Create and format tables using advanced features (formulas, styles).
CIS HS.11.1.c	Use advanced merge features to integrate spreadsheet and database information into the word processing document as fields and records.
CIS.HS.11.1.d	Create and manage styles.
CIS.HS.11.1.e	Plan, record, run, and edit Macros.

CIS.HS.11.2 Organize, aggregate, and manipulate data using advanced spreadsheet features.

CIS.HS.11.2.a	Create worksheet structures using formulas and advanced features. (e.g., logical statements, vLookup, financial, statistical functions, and named ranges).
CIS.HS.11.2.b	Interpret data through statistical analysis (e.g., sorting, filtering, forecasting, and pivot tables).
CIS.HS.11.2.c	Import, export, and share worksheet data.
CIS.HS.11.2.d	Customize formatting methods, including conditional formatting and other advanced formatting methods.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.3 Synthesize relational database concepts to design, manage, evaluate, and organize information.

CIS.HS.11.3.a Design tables specifying properties for data entry and relationships.

CIS.HS.11.3.b Construct multi-table queries to retrieve, organize, and aggregate data to draw conclusions.

CIS.HS.11.3.c Design forms and subforms for efficient and effective data entry or retrieval.

CIS.HS.11.3.d Design reports and subreports utilizing tables, graphs, sparklines, and pivot tables for displaying meaningful data.

CIS.HS.11.3.e Analyze relational data using Structure Query Language (SQL).

CIS.HS.11.4 Consider the relationship between different programs to utilize data in one program to the next to create new documents.

CIS.HS.11.4.a Utilize spreadsheets, presentation, and database information in word processing documents.

CIS.HS.11.4.b Utilize word processing, presentation, and database information in a spreadsheet.

CIS.HS.11.4.c Utilize word processing, spreadsheet, and database information in a presentation.

CIS.HS.11.4.d Utilize word processing and spreadsheet information in a database.

CIS.HS.11.5 Describe the importance of ethical data collection and applicable conclusions.

CIS.HS.11.5.a Analyze the privacy practices of data collection and use.

CIS.HS.11.5.b Analyze the security practices of data collection and use.

INFORMATION TECHNOLOGY APPLICATIONS II (cont.)

CIS.HS.11.6 Demonstrate critical thinking skills to integrate information technology tools to access, manage, and create new information.

CIS.HS.11.6.a Gather, evaluate, use, and disseminate information from multiple technology sources.

CIS.HS.11.6.b Create purposeful, digitally designed products (e.g., brochure, presentation, website, portfolio).

CIS.HS.11.7 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.11.7.a Identify information technologies used in various industries.

CIS.HS.11.7.b Discuss the impact of technology on all career fields.

CIS.HS 11.7.c Identify common tasks in career fields.

CIS.HS 11.7.d Discuss career opportunities in information technology career fields.

CIS.HS.11.7.e Describe the impact of technological change and the importance of lifelong learning in this career field.

CIS.HS.11.7.f Identify the benefits of industry certification and higher education Programs.

CIS.HS.11.7.g Identify the necessary skills to succeed in fields using data science.

WEB DESIGN AND DEVELOPMENT

COURSE DESCRIPTION

Students will demonstrate advanced knowledge of web/app design and languages by creating a content-rich and visually-pleasing website/app that captures and keeps visitors' interests. Focus will be given to effective page layout, image creation and manipulation, interactivity, content creation, and project management. This course may be available for dual credit at a postsecondary institution.

STANDARDS AND INDICATORS:

CIS.HS.18.1 Use code that is clear, well-formatted, and appropriately documented.

CIS.HS.18.a	Identify alternative codes and discuss advantages and disadvantages that led to their decision.
CIS.HS.18.1.b	Review code to identify and fix errors.
CIS.HS.18.1.c	Determine if existing code opens a website up to vulnerabilities.

CIS.HS.18.2 Assess content for accessibility issues and discuss the issue and possible solutions.

CIS.HS.18.2.a	Analyze content flow and present alternative content with screen readers and other adaptive technologies.
CIS.HS.18.2.b	Consider mobile application functionality when network access is not available.

CIS.HS.18.3 Create a single functional web page based on a design mockup and user requirements.

CIS.HS.18.3.a	Explain client and target audience needs.
CIS.HS.18.3.b	Assess the needs of clients based on current trends.
CIS.HS.18.3.c	Demonstrate use of collaborative development tools.

WEB DESIGN AND DEVELOPMENT (cont.)

CIS.HS.18.4 Create a web program that will utilize multiple languages and servers and will run on multiple platforms.

CIS.HS.18.4.a Create a functional website with both front-end and back-end file management.

CIS.HS.18.4.b Employ a variety of web technologies to produce a final product that meets industry web development standards.

CIS.HS.18.5 Identify common tools used for workflows associated with content generation.

CIS.HS.18.5.a Identify one or more tools (i.e., proprietary, open source, or otherwise) that are capable of creating the required content (i.e., image, video, text).

CIS.HS.18.5.b Compare various tools designed for the same workflow.

CIS.HS.18.6 Create web pages/apps without the aid of a prefabricated template.

CIS.HS.18.6.a Illustrate industry standard development practices by coding web pages/apps.

CIS.HS.18.7 Identify information that may be private or subject to ethical consideration.

CIS.HS.18.7.a Identify issues with collected information such as usernames, passwords, location data, and preferences, and discuss the possible ramifications of misuse.

CIS.HS.18.7.b Identify the benefits of a minimal set of permissions when authoring a mobile app and possible consequences of over requesting permissions.

CIS.HS.18.8 Describe opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

CIS.HS.18.8.a Identify information technologies used in various industries.

CIS.HS.18.8.b Discuss the impact of technology on all career fields.

CIS.HS.18.8.c Identify common tasks in career fields.

CIS.HS.18.8.d Discuss career opportunities in information technology career fields.

CIS.HS.18.8.e Describe the impact of technological change and the importance of lifelong learning in this career field.

FOUNDATIONS OF WEB DESIGN

COURSE DESCRIPTION

Students will demonstrate knowledge of web and mobile app design to create an effective website or app that captures and keeps visitors' interests. Students will demonstrate project management skills, while also enhancing creativity, problem solving, and critical thinking. Students will explore career opportunities in an information technology career field.

STANDARDS AND INDICATORS:

CIS.HS.9.1 Explain and apply appropriate web design language and terminology.

- CIS.HS.9.1.a Describe the principles and goals of website design.
- CIS.HS.9.1.b Describe the principles and goals of responsive design.
- CIS.HS.9.1.c Describe binary code.
- CIS.HS.9.1.d Define common industry terminology.

CIS.HS.9.2 Plan a website and/or app for a specific purpose.

- CIS.HS.9.2.a Develop a storyboard, mock-up, and wireframes for a website and/or app.
- CIS.HS.9.2.b Explain the design process in regards to audience, layout, time, and budget.
- CIS.HS.9.2.c Identify the target market audience's needs.
- CIS.HS.9.2.d Evaluate clients' needs based on current trends.
- CIS.HS.9.2.e Plan for responsive design.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.3 Analyze elements and principles of design to communicate ideas consistent with project goals.

CIS.HS.9.3.a	Apply appropriate font and font family concepts.
CIS.HS.9.3.b	Demonstrate knowledge of design decisions in regards to shapes, lines, colors.
CIS.HS.9.3.c	Demonstrate knowledge of design decisions in regards to white space, margins, and layout of graphic and text.
CIS.HS.9.3.d	Incorporate text layout techniques such as kerning, leading, and alignment.
CIS.HS.9.3.e	Incorporate audio, visual, and graphic elements.
CIS.HS.9.3.f	Develop a focused concept, clear methods of conveyance, and unified theme that solves the given problem.
CIS.HS.9.3.g	Identify accessibility and standard compliance measures in order to communicate with a broad audience.
CIS.HS.9.3.h	Explain design decisions in regards to themes.
CIS.HS.9.3.i	Evaluate the impact of design decisions on the theme of a design.
CIS.HS.9.3.j	Explain design and project goals using a storyboard, mock-up, and wireframes.

CIS.HS.9.4 Analyze legal and ethical responsibilities.

CIS.HS.9.4.a	Apply copyright laws as appropriate in website and app creation.
CIS.HS.9.4.b	Discuss security issues that are related to the utilization of the computer and/or Internet.
CIS.HS.9.4.c	Describe situations where web pages and/or apps may be used unethically.
CIS.HS.9.4.d	Describe licensing agreements.
CIS.HS.9.4.e	Discuss the importance of creative commons.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.5 Create and test websites and/or apps designed for cross browser and mobile compatibility.

CIS.HS.9.5.a Utilize standards-compliant elements in code that delivers essential content and functionality if older browsers are not capable of displaying content.

CIS.HS.9.5.b Create websites and/or apps that utilize responsive design to allow for a variety of screen sizes and geometries to view the content in a meaningful and logical fashion.

CIS.HS.9.5.c Test an application on devices of varying geometries and operating system versions to ensure maximum compatibility.

CIS.HS.9.6 Implement quality assurance processes to deliver effective digital communication.

CIS.HS.9.6.a Evaluate the website and/or app functionality.

CIS.HS.9.6.b Test a website and/or app in a variety of environments.

CIS.HS.9.6.c Evaluate site effectiveness through user search and accessibility to meet all audience needs.

CIS.HS.9.6.d Investigate web hosts.

CIS.HS.9.6.e Troubleshoot and maintain a website and/or app.

CIS.HS.9.6.f Evaluate cross-browser compatibility.

CIS.HS.9.6.g Identify the process of securing a domain name.

FOUNDATIONS OF WEB DESIGN (cont.)

CIS.HS.9.7 Critique a website and/or app in accordance with web design principles.

- CIS.HS.9.7.a Assess download time.
- CIS.HS.9.7.b Assess readability of the website and/or app.
- CIS.HS.9.7.c Assess ease of navigation for both website and/or app.
- CIS.HS.9.7.d Assess the design theme of a website and/or app.
- CIS.HS.9.7.e Assess consistency of the theme across the entire website and/or app.
- CIS.HS.9.7.f Assess the functionality of links.

CIS.HS.9.8 Identify opportunities in an information technology career field including but not limited to entrepreneurial opportunities, responsibilities, education, and certification.

- CIS.HS.9.8.a Identify information technologies used in various industries.
- CIS.HS.9.8.b Discuss the impact of technology on all career fields.
- CIS.HS.9.8.c Identify common tasks in career fields.
- CIS.HS.9.8.d Discuss career opportunities in information technology career fields.
- CIS.HS.9.8.e Describe the impact of technological change and the importance of lifelong learning in this career field.

NEBRASKA CAREER AND TECHNICAL EDUCATION



CTE®
Learning that works for Nebraska

NEBRASKA DEPARTMENT OF EDUCATION

HEALTH SCIENCES

PROGRAM OF STUDY STANDARDS

NEBRASKA CAREER AND TECHNICAL EDUCATION STATE MODEL PROGRAMS OF STUDY

CAREER FIELD OVERVIEW

The Health Sciences Career Field Area provides opportunities for students to deepen their understanding of topics in areas such as biotechnology research and development, behavioral health, diagnostic services, health informatics, supportive services, therapeutic services, and life span performance.

PROGRAMS OF STUDY

Programs of Study are the primary delivery model for Career and Technical Education (CTE) in Nebraska. They include a sequence of courses which progresses in specificity and rigor and are updated regularly to align with Nebraska's workforce needs and economic development priorities. This document includes the programs of study and course-based standards for the Health Sciences career field. These state model programs of study were developed to:

- Assist secondary schools in creating meaningful sequences of courses that adequately prepare individuals for seamless transitions to postsecondary education and careers eliminating duplication of coursework;
- Assist students in identifying appropriate courses for high school and postsecondary education that lead to their chosen career;
- Encourage collaboration between secondary and postsecondary education through curricular alignment;
- Offer opportunities for high-quality workplace experiences aligned to students' career interests;
- Promote the advancement of early postsecondary opportunities (including dual-credit courses) for all students; and
- Support postsecondary education options for students to further prepare them for successful transitions to their future careers.

Nebraska's programs of study are organized around Nebraska's CTE Model, which provides a way for students to explore the diversity of career options available to them.

NEBRASKA CAREER AND TECHNICAL EDUCATION MODEL

1 CORE ACADEMICS AND CAREER READINESS

At the center of the NCE Model is the expectation for all students to develop a solid academic core. The next ring identifies specific career readiness standards and practices that prepare students for success in postsecondary education as well as entrepreneurship/employment.

2 CAREER FIELDS

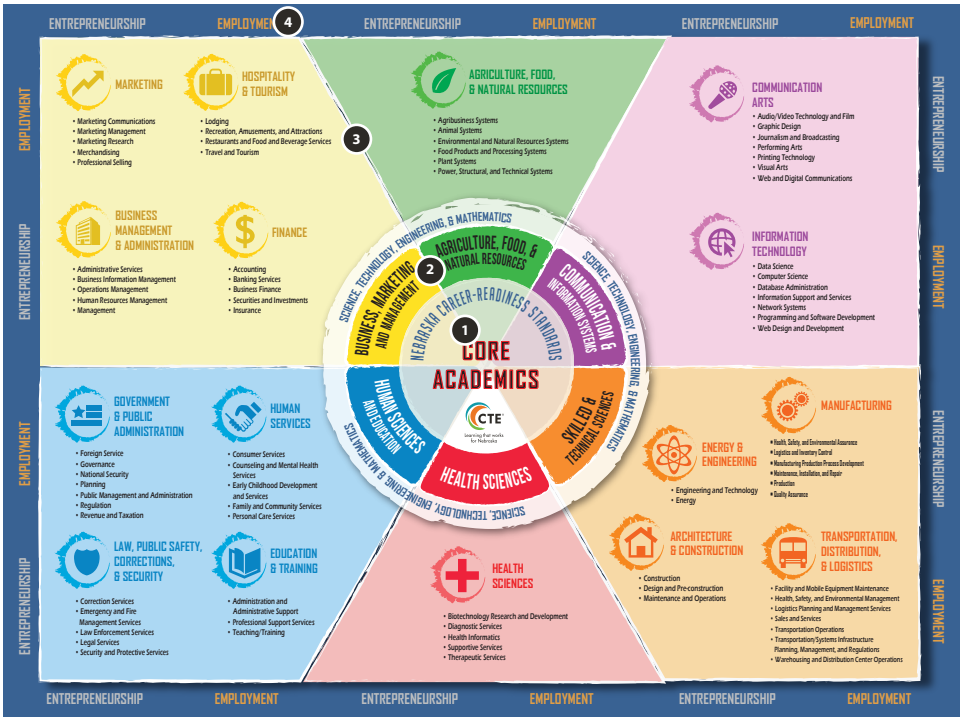
The six career fields represent broad sectors of the job market on which students may choose to focus.

3 CAREER CLUSTERS

Each career field is composed of career clusters radiating out from it. The clusters are more specific segments of the labor market. Each cluster is a grouping of careers that focus on similar subjects or similar skills. A basic understanding and exploration of each of the clusters will provide students with a solid foundation for career decision-making to conceptualize the entire world of work.

4 EMPLOYABILITY AND ENTREPRENEURSHIP

Career education provides the opportunity to gain the knowledge and skills for both employment and entrepreneurship. The reality for Nebraska and the United States is that entrepreneurship will help ensure economic growth and vitality. By infusing entrepreneurship competencies, career education is helping create the next generation of America's innovators and entrepreneurs.



The model is a visual map of "career fields" and "career clusters/pathways" and organizes the 16 National Career Clusters into six broad sectors of entrepreneurship and employment:

- Agriculture, Food and Natural Resources
- Business, Marketing and Management
- Communication and Information Systems
- Health Sciences
- Human Sciences and Education
- Skilled and Technical Sciences

These fields break down into more specific Career Clusters, Pathways and Occupational Specialties. The model provides a way for:

- Students to explore the diversity of career options available to them.
- Students to begin to prepare for their career with plans for secondary and post-secondary education.
- Schools to organize curriculum into Programs of Study that prepare students for opportunities in Nebraska's economy.

COURSE SEQUENCING

The courses within the State Model Program of Study are intended to be offered sequentially, to allow learners to build upon foundational knowledge and skills learned in introductory and intermediate courses and applied in more advanced capstone coursework. Non-duplicative sequences of courses ensure students transition to postsecondary education without duplication of classes and content. CTE enrollment data is collected at the course level. Students who participate and concentrate in CTE generally have more positive outcomes such as higher graduation rates along with postsecondary success.

Introductory Courses

Introductory courses set the foundation for a program of study by introducing students to broad foundational knowledge relative to an occupational area and career field.

Intermediate Courses

Intermediate courses build on the foundational knowledge of Introductory courses to further develop the academic, technical, and career readiness skills within a particular career field and occupational area.

Capstone Courses

Capstone courses are occupationally specific and further develop the necessary and required academic, technical, and career readiness skills needed for seamless transitions to postsecondary education and employment. Capstone courses often provide opportunities for students to earn postsecondary credit.

Levels of Participation

CTE Participant

A student who has earned one or more credits in any career and technical education program area.

CTE Concentrator

A secondary student who, in grades 9 through 12, has earned credit in at least two courses in a single career cluster program at the intermediate or capstone level.

State Model Programs of Study are coordinated, nonduplicative sequences of academic and technical content at the secondary and postsecondary levels that incorporate challenging State academic standards, address both academic and technical knowledge and skills, including Nebraska's Career Readiness Skills, are aligned with the needs of industries in Nebraska's economy, progress in specificity, have multiple entry and exit points that incorporate credentialing, and culminate in the attainment of a recognized postsecondary credential.

COURSE-BASED STANDARDS

Individual CTE courses, which make up the sequence of courses for Programs of Study, include content area standards and indicators to provide a framework for quality teaching and learning. While not required by state law, districts are encouraged to adopt these State Model Programs of Study and their related course-based standards. CTE State Model Programs of Study and course-based standards are revised on a five-year cycle to remain responsive to the rapid advances and needs of business and industry, help students explore a variety of postsecondary options and corresponding entrance requirements to help identify their next steps, and to align to changes in postsecondary programs.

Standards

At the highest level of generality, content area standards include a set of broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of students. They reflect long-term goals for learning.

Indicators

Under each standard are indicators, which further describe what a student must know and be able to do to meet the standard. Indicators are performance-based statements that provide educators with a clear understanding of the expected level of student learning and guidance. Indicators provide guidance for an assessment of student learning.

EXPANDED LEARNING OPPORTUNITIES

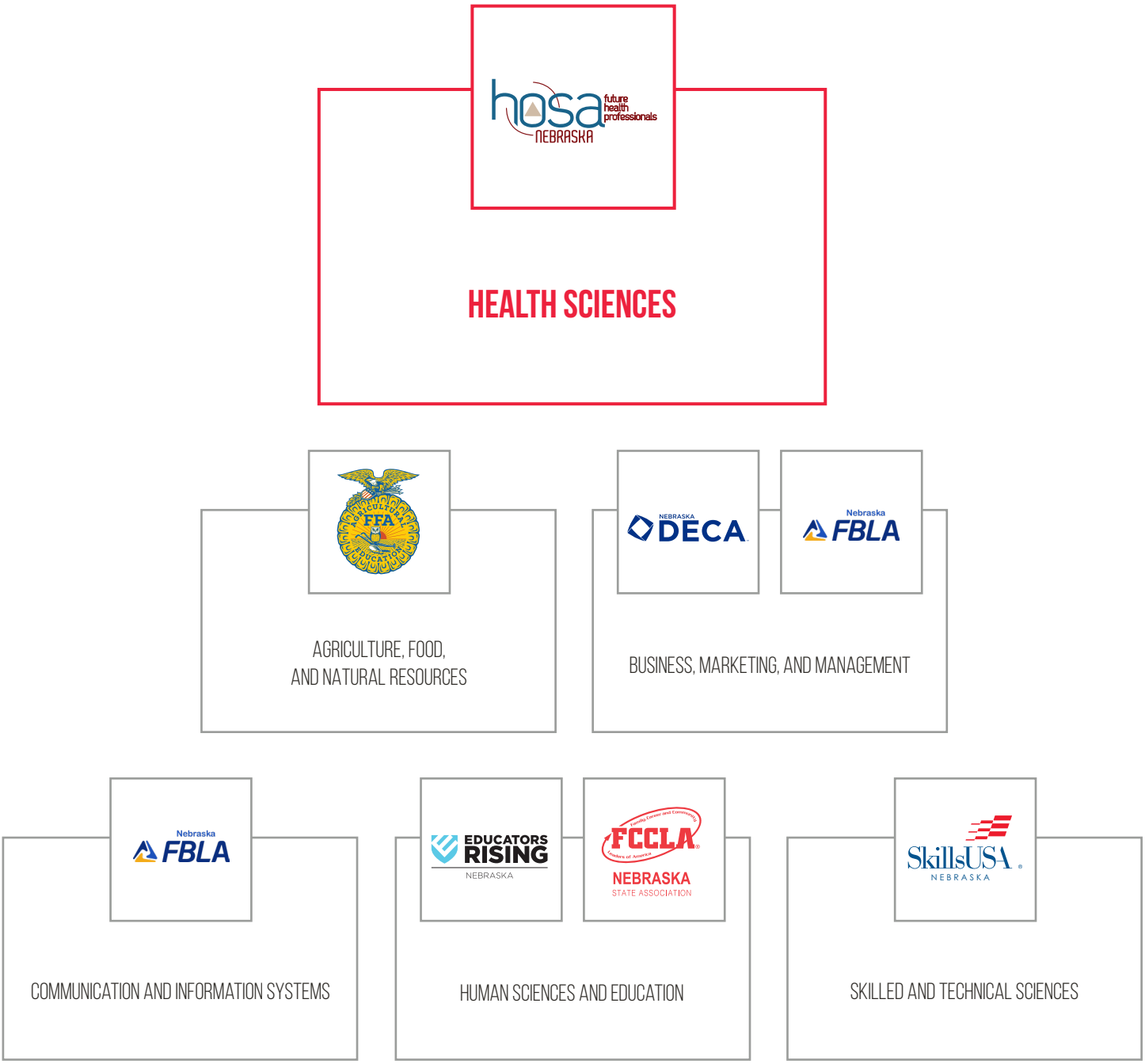
Expanded learning opportunities build on, support, and enhance learning within and outside of regular school programming. They are a critical component of Nebraska's educational landscape and should be intentionally supported to further develop students' college and career readiness. To signal aligned expanded learning opportunities, each Program of Study identifies additional areas where students may desire to personalize their program and take additional coursework or work-based learning that aligns with their interests. These expanded learning opportunities are not considered part of a Program of Study nor are they required, but rather a meaningful opportunity for students to continue to learn after completing the Program of Study sequence of courses within the context of their career interests. Along with aligned coursework, two prominent expanded learning opportunities include participating in Work-Based Learning or a Career and Technical Student Organization.

Work-Based Learning

Work-Based Learning (WBL) connects learners with employers to prepare them for success in an ever-changing workplace. WBL is a planned program of meaningful experiences related to the career interests of learners that enables them to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. WBL is learning through work, not simply learning about work. Expanding high-quality WBL opportunities for students is one of Nebraska's CTE strategic priorities and is a program quality accountability indicator. Nebraska CTE affirms WBL as a critical component of career development. Throughout the State Model Programs of Study, courses where WBL is embedded into the class is noted in the course title (e.g., "Health Science Work-Based Learning Experience"). It is also signaled as an expanded learning opportunity across all programs of study.

Career And Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are an extension of classroom instruction—applying classroom learning to real-world experiences. CTSOs provide opportunities for all students to develop career readiness skills through activities, competitions, and community service. Nebraska recognizes seven CTSOs aligned with the state's Programs of Study and career field areas. These include:



CAREER READINESS STANDARDS

Embedded into the State Model Programs of Study and courses are the Nebraska Career Readiness standards. These standards rest on important "practices and proficiencies" with long-standing importance in career education. These standards and related practices are not limited to formal CTE programs nor to the middle school or high school level. Rather, these standards and practices should be used over and over again with increasing complexity and relevance by students as they progress through their educational pathway. The standards themselves do not dictate curriculum, pedagogy or delivery of content. Schools and colleges may handle the teaching and assessing of these standards in many different ways.

THE CAREER READY INDIVIDUAL...



1. Applies appropriate academic and technical skills



2. Communicates effectively and appropriately



3. Contributes to employer and community success



4. Makes sense of problems and perseveres in solving them



5. Uses critical thinking



6. Demonstrates innovation and creativity



7. Models ethical leadership and effective management



8. Works productively in teams and demonstrates cultural competency



9. Utilizes technology



10. Manages personal career development



11. Attends to personal and financial well-being

HEALTH SCIENCES
PROGRAMS OF STUDY



Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
BEHAVIORAL HEALTH (Pages 9–18)	077300 - Health Science I	077801- Behavioral Health I	077802 - Behavioral Health II	090128 - Careers in Mental Health (HSE), OR 320710 - Health Science Work-Based Learning Experience
BIOTECHNOLOGY RESEARCH (Pages 19–25)	077300 - Health Science I, OR 077803 AND 077804 - PLTW Principles of Biomedical Science I & II	077600 - Medical Terminology, OR 130210 - Anatomy & Physiology, OR 077805 AND 077806 - PLTW Human Body Systems I & II	012004 - Agriculture Biotechnology (AFNR), OR 077304 - Exploring Laboratory Medicine with Work-Based Learning	320710 - Health Science Work-Based Learning Experience
HEALTH INFORMATICS (Pages 26–33)	077300 - Health Science I	077301 - Health Science II, OR 077600 - Medical Terminology	077800 - Health Info Tech, OR 077812 - Health Info Management and Ethics	320710 - Health Science Work-Based Learning Experience
HEALTH SCIENCE (Pages 34–47)	077300 - Health Science I, OR 077803 AND 077804 - PLTW Principles of Biomedical Science I & II	077301 - Health Science II, OR 130210 - Anatomy & Physiology, OR 077805 AND 077806 - PLTW Human Body Systems I & II, OR 077600 - Medical Terminology	077302 - Health Science III, OR 077400 - Nursing Assistant/ CNA Certification, OR 077401 - Medication Aide Certification, OR 077402 - Emergency Medical Technician Certification, OR 077807 AND 077808 - PLTW Medical Interventions I & II, OR 077444 - Pharmacy Technician, OR 077446 - Phlebotomy Technician	077900 - Allied Health & Medicine, OR 077303 - Personal and Community Medical Issues/ Public Health, OR 320710 - Health Science/ HS&E Work-Based Learning Experience 077809 PLTW Biomedial Innovation I, AND 077810 PLTW Biomedical Innovation II
LIFE SPAN PERFORMANCE (Pages 48–60)	077300 - Health Science 1	130210 - Anatomy & Physiology, OR 077600 - Medical Terminology, OR 090124 - Nutrition (HSE)	077500 - Introduction to Sports Medicine, OR 077601 - Exercise Science, OR 077701 - Performance Nutrition, OR 090133 - Lifespan Nutrition & Wellness (HSE)	320710 - Health Science Work-Based Learning Experience, OR 320712 - HS&E Work-Based Learning Experience

HEALTH SCIENCE I

COURSE DESCRIPTION

Health Sciences 1 is designed to give an overview of the therapeutic services, diagnostic services, support services, biotechnology research and development, and health informatics pathways. The course focuses on exploring health science pathways and careers, employability skills, ethical and legal responsibilities, safety practices and technical skills, and the history and current healthcare trends.

STANDARDS AND INDICATORS:

HS.HS.6.1 Explain the history, trends, and career pathways within the healthcare system.

HS.HS.6.1.a	Identify the history of health care.
HS.HS.6.1.b	Identify current trends in healthcare and how they impact healthcare and society.
HS.HS.6.1.c	Describe the various healthcare career pathways.
HS.HS.6.1.d	Describe healthcare careers.
HS.HS.6.1.e	Compare healthcare delivery systems and related agencies.

HS.HS.6.2 Describe legal and ethical standards of healthcare.

HS.HS.6.2.a	Identify aspects of legal considerations related to healthcare.
HS.HS.6.2.b	Describe ethical practices with respect to cultural, social, and ethnical differences within the healthcare environment.

HEALTH SCIENCES I (cont.)

HS.HS.6.3 Analyze career readiness skills to enhance employment opportunities and job satisfaction within the healthcare industry.

HS.HS.6.3.a	Identify personal traits and attitudes desirable in a member of a healthcare team.
HS.HS.6.3.b	Identify common barriers to communication between healthcare professionals and patients.
HS.HS.6.3.c	Summarize professional standards as they apply to various healthcare settings.
HS.HS.6.3.d	Explain the role of medical terminology in effective communication in health care.
HS.HS.6.3.e	Demonstrate characteristics of an effective team.
HS.HS.6.3.f	Demonstrate various forms of professional communication.
HS.HS.6.3.g	Analyze personal aptitudes and interests related to health careers.

HS.HS.6.4 Apply technical skills of healthcare professions.

HS.HS.6.4.a	Identify existing and potential safety hazards to clients, co-workers, self, and environment within the healthcare setting.
HS.HS.6.4.b	Describe proper body mechanics.
HS.HS.6.4.c	Demonstrate methods to control the spread of infection.
HS.HS.6.4.d	Demonstrate procedures for measuring and recording vital signs.
HS.HS.6.4.e	Apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.

BEHAVIORAL HEALTH I

COURSE DESCRIPTION

This course establishes a foundation that is necessary to understand Behavioral Health and investigate the career field of Behavioral Health. Course emphasis is placed on teaching students to successfully investigate Behavioral Health, education preparation, workforce structure and acquire awareness and knowledge of this career area.

It is recommended that students complete Behavioral Health I before taking Behavioral Health II.

STANDARDS AND INDICATORS:

HS.HS.1.1 Evaluate the impact of Behavioral Health in American society and on current health and wellness trends.

HS.HS.1.1.a	Identify current behavioral health issues and how they impact society
HS.HS.1.1.b	Interpret the historical overview and development of behavioral health in the United States.
HS.HS.1.1.c	Explain the role of behavioral health in society: your school, local, state, national, and international.
HS.HS.1.1.d	Explain the rationale behind the need for behavioral health.
HS.HS.1.1.g	Describe the code of ethics among professionals providing behavioral health services.
HS.HS.1.1.e	Differentiate between illness and mental illness.
HS.HS.1.1.f	Differentiate between behavioral health and mental health.
HS.HS.1.1.h	Evaluate the appropriateness and accuracy of information sources (e.g., literature, research, electronic information).

BEHAVIORAL HEALTH I (cont.)

HS.HS.1.2. Interpret behavioral health-related medical terms.

HS.HS.1.2.a Identify behavioral health prefixes, word roots, and suffixes.

HS.HS.1.2.b Construct behavioral health terms.

HS.HS.1.2.c Explain the reasoning behind standardized terminology in behavioral health.

HS.HS.1.3 Describe professional preparation, roles, and responsibilities of behavioral health providers.

HS.HS.1.3.a Describe the education requirements of behavioral health providers: psychologists, psychiatrists, psychiatric physician assistants, psychiatric nurses, licensed mental health practitioners, licensed drug and alcohol counselors, direct care professionals, school psychologists, and non-clinical social workers.

HS.HS.1.3.b Describe the professional roles and responsibilities of behavioral health providers: psychologists, psychiatrists, psychiatric physician assistants, psychiatric nurses, counselors and licensed mental health practitioners, licensed drug and alcohol counselors, marriage and family counselors, direct care professionals, school psychologists, and social workers.

HS.HS.1.4 Describe behavioral health interprofessional collaboration.

HS.HS.1.4.a Explain the role of the United States Department of Health as it relates to the state of Nebraska governing board for behavioral health professionals.

HS.HS.1.4.b Describe behavioral health professional organizations and the role they serve for the behavioral health professional: American Psychological Association, National Council for Counselors, WHO's Mental Health Atlas, etc.

HS.HS.1.5 Describe behavioral health and its integration into primary care providers.

HS.HS.1.5.a Explain the advantages/disadvantages of integrated behavioral health in a primary care environment.

HS.HS.1.5.b Summarize the levels of integrated behavioral health such as Boys Town, CHI Health, State Correctional Facility, Nebraska Medicine, etc.

BEHAVIORAL HEALTH II

COURSE DESCRIPTION

This course establishes a foundation that is necessary to understand Behavioral Health and investigate the career field of Behavioral Health. Course emphasis is placed on students successfully gaining skills in the field of Behavioral Health: explaining behavioral health assessments and treatments, addressing one's own mental health, investigating behavioral health career data in Nebraska, and advocating for the needs of others.

It is recommended that students complete Behavioral Health I before taking Behavioral Health II.

STANDARDS AND INDICATORS:

HS.HS.2.1 Explain behavioral health assessments and treatments.

HS.HS.2.1.a	Explain how the Diagnostic and Statistical Manual of Mental Disorders (DSM) handbook is used in diagnosis and treatment in behavioral health.
HS.HS.2.1.b	Compare behavioral health assessment and treatment plans (e.g., ADHD, depression, anxiety).
HS.HS.2.1.c	Describe progression of services from group to individualized therapy.
HS.HS.2.1.d	Describe theories and interventions being used in mental and social health (cognitive behavioral therapy (CBT), dialectical behavior therapy (DBT), creative arts therapy (CAT), emotionally focused therapy (EFT), and solution-focused brief therapy (SFBT).
HS.HS.2.1.e	Describe informed consent and how it impacts behavioral health.
HS.HS.2.1.f	Describe an individual treatment plan and its use.

BEHAVIORAL HEALTH II (cont.)

HS.HS.2.2 Create a plan and related actions and activities to improve one's own mental health and general well-being.

HS.HS.2.2.a Summarize how personal values and experiences influence one's usage of behavioral health services.

HS.HS.2.2.b Describe strategies to develop and evaluate personal mindfulness awareness plans.

HS.HS.2.2.c Explain how social and behavioral interventions are used to improve behavioral and social health in schools and communities.

HS.HS.2.3 Describe behavioral health career outlook projections and preparation in Nebraska

HS.HS.2.3.a Describe a behavioral health career path.

HS.HS.2.3.b Explain a personal career interest area, employment outlook, salary scale, and Nebraska licensing requirements.

HS.HS.2.3.c Describe the challenges and opportunities for behavioral health careers in Nebraska.

HS.HS.2.3.d Interpret data on behavioral health services deficit areas in Nebraska.

HS.HS.2.3.e Describe the educational path to a career in behavioral health.

HS.HS.2.3.f Explain educational costs (e.g., scholarships, grants, federal loans, personal bank loans, and cost of interest and loan repayment).

BEHAVIORAL HEALTH II (cont.)

HS.HS.2.4 Demonstrate advocacy that supports the needs and rights of others.

HS.HS.2.4.a	Identify conferences, workshops, and retreats that educate and support behavioral health issues.
HS.HS.2.4.b	Explain advocacy and its application to behavioral health.
HS.HS.2.4.c	Describe efforts to reduce stigma of mental health through public education (e.g., Substance Abuse and Mental Health Services Administration).
HS.HS.2.4.d	Describe barriers to behavioral health provider access.
HS.HS.2.4.e	Demonstrate ways to advocate for friends and family members who need support for behavioral health issues.
HS.HS.2.4.f	Demonstrate ways to advocate for a positive, respectful school environment that supports pro-social behavior (e.g., handling teasing and bullying and reducing stigma associated with mental and behavioral health).

CAREERS IN MENTAL HEALTH

(from the Human Sciences and Education Standards)

COURSE DESCRIPTION

This introductory course explores a variety of careers in the counseling and mental health field building on concepts from Introduction to Family & Consumer Sciences. Topics covered include personal qualities, skills, and educational requirements needed to enter this career field. The importance of ethical behavior required by mental health professionals will also be addressed.

STANDARDS AND INDICATORS:

HSE.HS.4.1 Analyze non-therapeutic helper careers where counseling practices are applied.

HSE.HS.4.1.a	Describe the role and importance of helpers in society.
HSE.HS.4.1.b	Identify the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, volunteer helpers, peer helpers, and informal helpers).
HSE.HS.4.1.c	Explain how helping requires balancing both intellectual and emotional competence.

HSE.HS.4.2 Summarize professional character qualities required of a mental health professional.

HSE.HS.4.2.a	Explain the importance of being a lifelong learner within the mental health career field.
HSE.HS.4.2.b	Identify the importance of cultural literacy and equity as it applies to mental health services.
HSE.HS.4.2.c	Explain personal characteristics necessary to excel at providing mental health services.

CAREERS IN MENTAL HEALTH (cont.)

HS.HS.4.3 Analyze American views of mental health throughout history up until present times, and the impact these views have had on individual or family health and wellness.

HSE.HS.4.3.a Describe the historical development of the mental health field.

HSE.HS.4.3.b Explain the role of mental health in society (e.g., school, local, state, national).

HSE.HS.4.3.c Compare and contrast mental health and behavioral health.

HSE.HS.4.3.d Explain how the discovery of Adverse Childhood Experiences (ACEs) has impacted views regarding the importance of mental health topics.

HSE.HS.4.3.e Compare and contrast mental health and mental illness.

HSE.HS.4.3.f Analyze current mental health issues and trends and how they impact society.

HSE.HS.4.4 Distinguish between careers in the mental health field.

HSE.HS.4.4.a Identify employment trends within the mental health career field.

HSE.HS.4.4.b Describe the role mental health professionals have in society.

HSE.HS.4.4.c Compare and contrast the roles of a variety of mental health professionals (e.g., LMHPs, non-clinical social workers, educational counselors, school psychologists, research psychologists, clinical psychologists, psychiatrists).

HSE.HS.4.4.d Compare and contrast training and education requirements for various careers in the mental health field.

HSE.HS.4.5 Identify the process for becoming a certified mental health professional.

HSE.HS.4.5.a Explain the process and requirements for education and licensure of mental health professionals in Nebraska.

HSE.HS.4.5.b Identify procedures and fees associated with professional licensing of mental health professionals in the State of Nebraska.

HSE.HS.4.5.c Identify colleges and other post-secondary options for students interested in pursuing a career in the mental health field.

CAREERS IN MENTAL HEALTH (cont.)

HSE.HS.4.6 Appraise the importance of ethical behavior within the mental health professions.

HSE.HS.4.6.a	Identify the ethical obligations of those working in the mental health career field.
HSE.HS.4.6.b	Outline client rights and responsibilities in the therapeutic process.
HSE.HS.4.6.c	Describe the consequences of violating codes of ethics for mental health professionals.
HSE.HS.4.6.d	Analyze the penalties for violations by mental health professionals as it pertains to confidentiality and HIPAA.
HSE.HS.4.6.e	Examine the importance of ethical behavior when conducting psychological research on human subjects, including the Belmont Report and the role of Institutional Review Boards.
HSE.HS.4.6.f	Analyze the basic principles of ethical behavior (e.g., beneficence, nonmaleficence, justice, autonomy, and fidelity).

HSE.HS.4.7 Analyze the importance of mental health professionals taking care of their own mental health.

HSE.HS.4.7.a	Explain the essential need for mental health professionals to prioritize their own mental health.
HSE.HS.4.7.b	Describe optimal mental health and well-being.
HSE.HS.4.7.c	Implement strategies to practice self-care and develop personal mindfulness awareness plans.
HSE.HS.4.7.d	Summarize how personal values and experiences influence one's usage of mental and behavioral health services.
HS.HS.4.7.e	Identify basic intervention techniques to improve one's mental health.

HEALTH SCIENCE I

COURSE DESCRIPTION

Health Sciences 1 is designed to give an overview of the therapeutic services, diagnostic services, support services, biotechnology research and development, and health informatics pathways. The course focuses on exploring health science pathways and careers, employability skills, ethical and legal responsibilities, safety practices and technical skills, and the history and current healthcare trends.

STANDARDS AND INDICATORS:

HS.HS.6.1 Explain the history, trends, and career pathways within the healthcare system.

HS.HS.6.1.a Identify the history of health care.

HS.HS.6.1.b Identify current trends in healthcare and how they impact healthcare and society.

HS.HS.6.1.c Describe the various healthcare career pathways.

HS.HS.6.1.d Describe healthcare careers.

HS.HS.6.1.e Compare healthcare delivery systems and related agencies.

HS.HS.6.2 Describe legal and ethical standards of healthcare.

HS.HS.6.2.a Identify aspects of legal considerations related to healthcare.

HS.HS.6.2.b Describe ethical practices with respect to cultural, social, and ethnical differences within the healthcare environment.

HEALTH SCIENCES I (cont.)

HS.HS.6.3 Analyze career readiness skills to enhance employment opportunities and job satisfaction within the healthcare industry.

HS.HS.6.3.a Identify personal traits and attitudes desirable in a member of a healthcare team.

HS.HS.6.3.b Identify common barriers to communication between healthcare professionals and patients.

HS.HS.6.3.c Summarize professional standards as they apply to various healthcare settings.

HS.HS.6.3.d Explain the role of medical terminology in effective communication in health care.

HS.HS.6.3.e Demonstrate characteristics of an effective team.

HS.HS.6.3.f Demonstrate various forms of professional communication.

HS.HS.6.3.g Analyze personal aptitudes and interests related to health careers.

HS.HS.6.4 Apply technical skills of healthcare professions.

HS.HS.6.4.a Identify existing and potential safety hazards to clients, co-workers, self, and environment within the healthcare setting.

HS.HS.6.4.b Describe proper body mechanics.

HS.HS.6.4.c Demonstrate methods to control the spread of infection.

HS.HS.6.4.d Demonstrate procedures for measuring and recording vital signs.

HS.HS.6.4.e Apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.

MEDICAL TERMINOLOGY

COURSE DESCRIPTION

This course is designed to help students learn medical language by analyzing its components. The primary focus is on developing both oral and written skills in the language used to communicate within health care professions. This course is a fundamental course for students who are pursuing a career in the healthcare profession. It is the basic language required for all areas of health science and is required for any health care profession beginning with entry level staff.

STANDARDS AND INDICATORS:

HS.HS.11.1 Apply medical terminology.

HS.HS.11.1.a Explain the construction of medical terms including singular and plural form as well as prefixes, suffixes, roots, and combinations.

HS.HS.11.1.b Extract medical information from realistic medical references/documents, hospital medical records, and case studies.

HS.HS.11.1.c Apply medical terminology to real-life scenarios.

HS.HS.11.1.d Apply medical terms relating to medical specialties or personnel, pathology, surgical, and diagnostic procedures.

HS.HS.11.2 Apply medical abbreviations.

HS.HS.11.2.a Identify acceptable and error-prone abbreviations and symbols.

HS.HS.11.2.b Determine time using the 24-hour clock.

HS.HS.11.2.c Apply identified medical abbreviations, symbols, numbers, and quantity measures.

HS.HS.11.3 Apply anatomical terms.

HS.HS.11.3.a Identify terms associated with the planes, cavities, and regions of the body.

HS.HS.11.3.b Describe standard anatomical position as a reference point for identifying areas of the body and organs.

HS.HS.11.3.c Apply directional terms.

MEDICAL TERMINOLOGY (cont.)

HS.HS.11.4 Interpret medical terms related to the anatomy and physiology of body systems.

HS.HS.11.4.a Describe the basic structural and functional organization of the human body and the systems of the body, including the integumentary, cardiovascular, musculoskeletal, immune, respiratory, digestive, urinary, reproductive, nervous, and endocrine systems.

HS.HS.11.4.b Describe the inter-relationship between body systems.

HS.HS.11.4.c Describe common diseases and disorders of each body system.

AGRICULTURE BIOTECHNOLOGY

(from the Agriculture, Food, and Natural Resources Standards)

COURSE DESCRIPTION

A course focusing on students examining the relationship between biotechnology and modern agriculture, food, and natural resource systems. Students identify purposes and methods of genetic modification of plants and animals and the impact of biotechnology on a global scale. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

STANDARDS AND INDICATORS:

AFNR.HS.2.1 Assess factors that have influenced the evolution of biotechnology in agriculture.

AFNR.HS.2.1.a	Research and summarize the evolution of biotechnology in agriculture.
AFNR.HS.2.1.b	Summarize current work in biotechnology and the added value to agriculture and society.
AFNR.HS.2.1.c	Compare and contrast the benefits and risks of biotechnology and conventional approaches to improving agriculture.

AFNR.HS.2.2 Evaluate the scope and implications of bioethics, law, and public perceptions of biotechnology in agriculture.

AFNR.HS.2.2.a	Compare and contrast global regulatory systems for biotechnology in agriculture.
AFNR.HS.2.2.b	Research and summarize the emergence, evolution, and implications of bioethics associated with biotechnology in agriculture.
AFNR.HS.2.2.c	Describe the significance and impacts of legal issues related to biotechnology in agriculture.
AFNR.HS.2.2.d	Investigate the impact of public perceptions on the application of biotechnology in different (AFNR) systems.

AGRICULTURE BIOTECHNOLOGY (cont.)

AFNR.HS.2.3 Apply appropriate laboratory skills to complete tasks in a biotechnology research and development environment (e.g., standard operating procedures, record keeping, aseptic technique, equipment maintenance).

AFNR.HS.2.3.a Maintain and interpret records documented in a laboratory to ensure data accuracy and integrity (e.g., avoid bias, record any conflicts of interest, avoid misinterpreted results).

AFNR.HS.2.3.b Categorize and identify laboratory equipment according to its purpose in scientific research.

AFNR.HS.2.3.c Apply standard operating procedures for the safe handling, management, and disposal of biological and chemical materials in a laboratory according to a standard operating procedures plan.

AFNR.HS.2.3.d Demonstrate or identify the steps necessary to perform simple genetic modification.

AFNR.HS.2.4 Apply concepts of biotechnology to solve problems in Agriculture, Food, and Natural Resources (AFNR) systems (e.g., bioengineering, food processing, waste management, horticulture, forestry, livestock, crops).

AFNR.HS.2.4.a Identify biotechnology principles, techniques, and processes to create transgenic species through genetic engineering.

AFNR.HS.2.4.b Explain biotechnology principles, techniques, and processes to enhance the production of food through the use of microorganisms and enzymes.

AFNR.HS.2.4.c Apply biotechnology principles, techniques, and processes to protect the environment and maximize use of natural resources (e.g., biomass, bioprospecting, industrial biotechnology).

AFNR.HS.2.4.d Apply biotechnology principles, techniques, and processes to enhance plant and animal care and production (e.g., selective breeding, pharmaceuticals, biodiversity).

AFNR.HS.2.4.e Apply biotechnology principles, techniques and processes to produce biofuels (e.g., fermentation, transesterification, methanogenesis).

AFNR.HS.2.4.f Apply biotechnology principles, techniques, and processes to improve waste management (e.g., genetically modified organisms, bioremediation).

EXPLORING LABORATORY MEDICINE WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This course is a Work-Based Learning (WBL) experience, providing students with the art and science of the clinical lab setting and the global range of career opportunities available. Students will job shadow in the community to gain real life career experience. Examination of legal and ethical issues will be covered throughout the class. Participants will have hands-on practice with lab techniques, equipment, and record keeping relevant to medical, veterinary, dental, biotechnology, agricultural and food science, and multiple other professions.

STANDARDS AND INDICATORS:

HS.HS.4.1 Interpret the legal and ethical responsibilities of the clinical laboratory setting.

HS.HS.4.1.a Explain the legal responsibilities, limitations, and implications of clinical lab professionals.

HS.HS.4.1.b Interpret the ethical situations in the clinical laboratory setting.

HS.HS.4.2 Differentiate between clinical lab professions.

HS.HS.4.2.a. Describe the personal traits and characteristics desirable in a member of a clinical lab.

HS.HS.4.2.b. Compare clinical lab careers.

HS.HS.4.2.c. Demonstrate professional clinical laboratory competencies in an authentic clinical laboratory setting.

HS.HS.4.3 Apply industry-based practices for laboratory procedures to gather and analyze data.

HS.HS.4.3.a Connect personal and laboratory safety practices.

HS.HS.4.3.b Demonstrate professional procedures for recording and reporting of data.

HS.HS.4.3.c Demonstrate the proper use of handling, preparing, and using mixtures, solutions, specimens, and laboratory supplies and equipment according to protocol.

HS.HS.4.3.d Analyze results of data collected during the clinical lab experience.

HEALTH SCIENCE I

COURSE DESCRIPTION

Health Sciences 1 is designed to give an overview of the therapeutic services, diagnostic services, support services, biotechnology research and development, and health informatics pathways. The course focuses on exploring health science pathways and careers, employability skills, ethical and legal responsibilities, safety practices and technical skills, and the history and current healthcare trends.

STANDARDS AND INDICATORS:

HS.HS.6.1 Explain the history, trends, and career pathways within the healthcare system.

HS.HS.6.1.a Identify the history of health care.

HS.HS.6.1.b Identify current trends in healthcare and how they impact healthcare and society.

HS.HS.6.1.c Describe the various healthcare career pathways.

HS.HS.6.1.d Describe healthcare careers.

HS.HS.6.1.e Compare healthcare delivery systems and related agencies.

HS.HS.6.2 Describe legal and ethical standards of healthcare.

HS.HS.6.2.a Identify aspects of legal considerations related to healthcare.

HS.HS.6.2.b Describe ethical practices with respect to cultural, social, and ethnical differences within the healthcare environment.

HEALTH SCIENCES I (cont.)

HS.HS.6.3 Analyze career readiness skills to enhance employment opportunities and job satisfaction within the healthcare industry.

HS.HS.6.3.a Identify personal traits and attitudes desirable in a member of a healthcare team.

HS.HS.6.3.b Identify common barriers to communication between healthcare professionals and patients.

HS.HS.6.3.c Summarize professional standards as they apply to various healthcare settings.

HS.HS.6.3.d Explain the role of medical terminology in effective communication in health care.

HS.HS.6.3.e Demonstrate characteristics of an effective team.

HS.HS.6.3.f Demonstrate various forms of professional communication.

HS.HS.6.3.g Analyze personal aptitudes and interests related to health careers.

HS.HS.6.4 Apply technical skills of healthcare professions.

HS.HS.6.4.a Identify existing and potential safety hazards to clients, co-workers, self, and environment within the healthcare setting.

HS.HS.6.4.b Describe proper body mechanics.

HS.HS.6.4.c Demonstrate methods to control the spread of infection.

HS.HS.6.4.d Demonstrate procedures for measuring and recording vital signs.

HS.HS.6.4.e Apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.

HEALTH SCIENCE II

COURSE DESCRIPTION

Health Sciences II is designed to provide students a more in-depth exploration of personal interests within healthcare as well as a deeper analysis of the healthcare system overall. The course will include demonstrating workplace skills in a health science professional setting or educational facility. Instruction includes health literacy, introduction to organization of the body, medical terminology and medical math, analysis, and application of emergency and technical skills, as well as a deeper analysis of legal and ethical issues within healthcare.

STANDARDS AND INDICATORS:

HS.HS.7.1 Distinguish between the wide variety of Health Professions.

HS.HS.7.1.a Compare various careers from multiple pathways.

HS.HS.7.1.b Compare job outlook projections for healthcare careers on a local, state, and national level.

HS.HS.7.1.c Demonstrate workplace skills in an experience at a health science professional setting or educational facility (i.e. job shadow, interview of a professional, visit to an educational program).

HS.HS.7.2 Analyze health information to develop health literacy.

HS.HS.7.2.a Describe the fundamentals of health, wellness, and disease prevention.

HS.HS.7.2.b Explain physical, mental, social, and behavioral health and its impact on healthcare, disease, and prevention.

HS.HS.7.2.c Explain social health issues & the impact of the issues on society.

HS.HS.7.2.d Differentiate between complementary and alternative health practices as they relate to wellness and disease prevention.

HEALTH SCIENCES II (cont.)

HS.HS.7.3 Apply academic principles used within the healthcare system.

HS.HS.7.3.a Identify basic structure, common word parts, and abbreviations in medical terminology.

HS.HS.7.3.b Describe the organization of the human body.

HS.HS.7.3.c Interpret diagrams, charts, graphs, and tables and articulate healthcare results.

HS.HS.7.3.d Apply math principles integral to basic medical applications.

HS.HS.7.4 Analyze various health situations, applying technical skills including basic first aid, CPR/AED, and measurement of vital signs.

HS.HS.7.4.a Demonstrate procedures for measuring vital signs and interpreting the results.

HS.HS.7.4.b Demonstrate appropriate response skills to first aid and emergency situations.

HS.HS.7.4.c Differentiate between infectious agents.

HS.HS.7.4.d Apply methods to control the spread of infection.

HS.HS.7.5 Analyze legal and ethical issues in healthcare.

HS.HS.7.5.a Explain accepted ethical practices with respect to cultural, religious, social, and ethnical differences within the healthcare environment.

HS.HS.7.5.b Differentiate between ethical and legal issues impacting healthcare.

HS.HS.7.5.c Analyze the legal responsibilities, limitations, and implications relating to regulations, policies, laws, and patient rights.

MEDICAL TERMINOLOGY

COURSE DESCRIPTION

This course is designed to help students learn medical language by analyzing its components. The primary focus is on developing both oral and written skills in the language used to communicate within health care professions. This course is a fundamental course for students who are pursuing a career in the healthcare profession. It is the basic language required for all areas of health science and is required for any health care profession beginning with entry level staff.

STANDARDS AND INDICATORS:

HS.HS.11.1 Apply medical terminology.

HS.HS.11.1.a Explain the construction of medical terms including singular and plural form as well as prefixes, suffixes, roots, and combinations.

HS.HS.11.1.b Extract medical information from realistic medical references/documents, hospital medical records, and case studies.

HS.HS.11.1.c Apply medical terminology to real-life scenarios.

HS.HS.11.1.d Apply medical terms relating to medical specialties or personnel, pathology, surgical, and diagnostic procedures.

HS.HS.11.2 Apply medical abbreviations.

HS.HS.11.2.a Identify acceptable and error-prone abbreviations and symbols.

HS.HS.11.2.b Determine time using the 24-hour clock.

HS.HS.11.2.c Apply identified medical abbreviations, symbols, numbers, and quantity measures.

HS.HS.11.3 Apply anatomical terms.

HS.HS.11.3.a Identify terms associated with the planes, cavities, and regions of the body.

HS.HS.11.3.b Describe standard anatomical position as a reference point for identifying areas of the body and organs.

HS.HS.11.3.c Apply directional terms.

MEDICAL TERMINOLOGY (cont.)

HS.HS.11.4 Interpret medical terms related to the anatomy and physiology of body systems.

HS.HS.11.4.a Describe the basic structural and functional organization of the human body and the systems of the body, including the integumentary, cardiovascular, musculoskeletal, immune, respiratory, digestive, urinary, reproductive, nervous, and endocrine systems.

HS.HS.11.4.b Describe the inter-relationship between body systems.

HS.HS.11.4.c Describe common diseases and disorders of each body system.

HEALTH INFORMATION TECHNOLOGY

COURSE DESCRIPTION

Health Information Technology is the management and use of information in Health Sciences related to, but not limited to, communications, legal and ethical implications, data management and organization, and technology applications. Completion of this course allows the student to obtain entry-level competencies defined by the American Health Information Management Association. These are nationally accepted standards of practitioner roles and functions.

STANDARDS AND INDICATORS:

HS.HS.5.1 Summarize the purposes and content of the medical record.

HS.HS.5.1.a	Describe how health data is used by various individuals and groups.
HS.HS.5.1.b	Define key words and abbreviations.
HS.HS.5.1.c	Identify key organizations external to the health care facility that influence data collection.
HS.HS.5.1.d	Describe the typical forms/screens used to collect data in a patient record and the types of data collected in each.
HS.HS.5.1.e	List the general design principles to consider when creating or revising a form/screen to collect data.
HS.HS.5.1.f	Explain the three types of documentation analysis: quantitative, qualitative, and statistical.
HS.HS.5.1.g	Compare the following record formats: source-oriented, problem-oriented, and integrated.

HEALTH INFORMATION TECHNOLOGY (cont.)

HS.HS.5.2 Explain the role of the Health Information Technology Department in a healthcare facility.

HS.HS.5.2.a Describe the various functions of a health record department.

HS.HS.5.2.b Describe confidentiality and concerns related to protection of patient data to preserve confidentiality.

HS.HS.5.2.c Explain the development of the Health Information Management (HIM) profession and emerging roles of HIM professionals.

HS.HS.5.2.d Describe the purpose and the sponsor of various data sets and databases.

HS.HS.5.2.e Explain the purpose of the AHIMA Code of Ethics.

HS.HS.5.3 Explain HIM certification and HIM professional development opportunities.

HS.HS.5.3.a Identify the requirements for initial and continuing certification within the HIM profession.

HS.HS.5.3.b Describe the benefits of membership in a professional association.

HS.HS.5.3.c Identify various resources for HIM professional development including, but not limited to, the Journal of AHIMA, publications of AIMA, the internet web site of AIMA, other related web sites, and the FORE library.

HS.HS.5.4 Explain storage and retrieval of patient data records.

HS.HS.5.4.a Identify systems for storage of patient records.

HS.HS.5.4.b Describe the concept of a "unit" record and its advantages and disadvantages.

HS.HS.5.4.c Retrieve data elements from patients' records and databases.

HS.HS.5.4.d List ways to safeguard patient information.

HS.HS.5.4.e Describe systems/procedures for handling incomplete health records.

HS.HS.5.4.f Describe manual and automated record tracking systems.

HS.HS.5.4.g Explain the value of the master patient index (MPI) in accessing patient records.

HEALTH SCIENCE I

COURSE DESCRIPTION

Health Sciences 1 is designed to give an overview of the therapeutic services, diagnostic services, support services, biotechnology research and development, and health informatics pathways. The course focuses on exploring health science pathways and careers, employability skills, ethical and legal responsibilities, safety practices and technical skills, and the history and current healthcare trends.

STANDARDS AND INDICATORS:

HS.HS.6.1 Explain the history, trends, and career pathways within the healthcare system.

- HS.HS.6.1.a Identify the history of health care.
- HS.HS.6.1.b Identify current trends in healthcare and how they impact healthcare and society.
- HS.HS.6.1.c Describe the various healthcare career pathways.
- HS.HS.6.1.d Describe healthcare careers.
- HS.HS.6.1.e Compare healthcare delivery systems and related agencies.

HS.HS.6.2 Describe legal and ethical standards of healthcare.

- HS.HS.6.2.a Identify aspects of legal considerations related to healthcare.
- HS.HS.6.2.b Describe ethical practices with respect to cultural, social, and ethnical differences within the healthcare environment.

HEALTH SCIENCES I (cont.)

HS.HS.6.3 Analyze career readiness skills to enhance employment opportunities and job satisfaction within the healthcare industry.

HS.HS.6.3.a	Identify personal traits and attitudes desirable in a member of a healthcare team.
HS.HS.6.3.b	Identify common barriers to communication between healthcare professionals and patients.
HS.HS.6.3.c	Summarize professional standards as they apply to various healthcare settings.
HS.HS.6.3.d	Explain the role of medical terminology in effective communication in health care.
HS.HS.6.3.e	Demonstrate characteristics of an effective team.
HS.HS.6.3.f	Demonstrate various forms of professional communication.
HS.HS.6.3.g	Analyze personal aptitudes and interests related to health careers.

HS.HS.6.4 Apply technical skills of healthcare professions.

HS.HS.6.4.a	Identify existing and potential safety hazards to clients, co-workers, self, and environment within the healthcare setting.
HS.HS.6.4.b	Describe proper body mechanics.
HS.HS.6.4.c	Demonstrate methods to control the spread of infection.
HS.HS.6.4.d	Demonstrate procedures for measuring and recording vital signs.
HS.HS.6.4.e	Apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.

HEALTH SCIENCE II

COURSE DESCRIPTION

Health Sciences II is designed to provide students a more in-depth exploration of personal interests within healthcare as well as a deeper analysis of the healthcare system overall. The course will include demonstrating workplace skills in a health science professional setting or educational facility. Instruction includes health literacy, introduction to organization of the body, medical terminology and medical math, analysis, and application of emergency and technical skills, as well as a deeper analysis of legal and ethical issues within healthcare.

STANDARDS AND INDICATORS:

HS.HS.7.1 Distinguish between the wide variety of Health Professions.

HS.HS.7.1.a Compare various careers from multiple pathways.

HS.HS.7.1.b Compare job outlook projections for healthcare careers on a local, state, and national level.

HS.HS.7.1.c Demonstrate workplace skills in an experience at a health science professional setting or educational facility (i.e. job shadow, interview of a professional, visit to an educational program).

HS.HS.7.2 Analyze health information to develop health literacy.

HS.HS.7.2.a Describe the fundamentals of health, wellness, and disease prevention.

HS.HS.7.2.b Explain physical, mental, social, and behavioral health and its impact on healthcare, disease, and prevention.

HS.HS.7.2.c Explain social health issues & the impact of the issues on society.

HS.HS.7.2.d Differentiate between complementary and alternative health practices as they relate to wellness and disease prevention.

HEALTH SCIENCES II (cont.)

HS.HS.7.3 Apply academic principles used within the healthcare system.

HS.HS.7.3.a Identify basic structure, common word parts, and abbreviations in medical terminology.

HS.HS.7.3.b Describe the organization of the human body.

HS.HS.7.3.c Interpret diagrams, charts, graphs, and tables and articulate healthcare results.

HS.HS.7.3.d Apply math principles integral to basic medical applications.

HS.HS.7.4 Analyze various health situations, applying technical skills including basic first aid, CPR/AED, and measurement of vital signs.

HS.HS.7.4.a Demonstrate procedures for measuring vital signs and interpreting the results.

HS.HS.7.4.b Demonstrate appropriate response skills to first aid and emergency situations.

HS.HS.7.4.c Differentiate between infectious agents.

HS.HS.7.4.d Apply methods to control the spread of infection.

HS.HS.7.5 Analyze legal and ethical issues in healthcare.

HS.HS.7.5.a Explain accepted ethical practices with respect to cultural, religious, social, and ethnical differences within the healthcare environment.

HS.HS.7.5.b Differentiate between ethical and legal issues impacting healthcare.

HS.HS.7.5.c Analyze the legal responsibilities, limitations, and implications relating to regulations, policies, laws, and patient rights.

MEDICAL TERMINOLOGY

COURSE DESCRIPTION

This course is designed to help students learn medical language by analyzing its components. The primary focus is on developing both oral and written skills in the language used to communicate within health care professions. This course is a fundamental course for students who are pursuing a career in the healthcare profession. It is the basic language required for all areas of health science and is required for any health care profession beginning with entry level staff.

STANDARDS AND INDICATORS:

HS.HS.11.1 Apply medical terminology.

HS.HS.11.1.a Explain the construction of medical terms including singular and plural form as well as prefixes, suffixes, roots, and combinations.

HS.HS.11.1.b Extract medical information from realistic medical references/documents, hospital medical records, and case studies.

HS.HS.11.1.c Apply medical terminology to real-life scenarios.

HS.HS.11.1.d Apply medical terms relating to medical specialties or personnel, pathology, surgical, and diagnostic procedures.

HS.HS.11.2 Apply medical abbreviations.

HS.HS.11.2.a Identify acceptable and error-prone abbreviations and symbols.

HS.HS.11.2.b Determine time using the 24-hour clock.

HS.HS.11.2.c Apply identified medical abbreviations, symbols, numbers, and quantity measures.

HS.HS.11.3 Apply anatomical terms.

HS.HS.11.3.a Identify terms associated with the planes, cavities, and regions of the body.

HS.HS.11.3.b Describe standard anatomical position as a reference point for identifying areas of the body and organs.

HS.HS.11.3.c Apply directional terms.

MEDICAL TERMINOLOGY (cont.)

HS.HS.11.4 Interpret medical terms related to the anatomy and physiology of body systems.

HS.HS.11.4.a Describe the basic structural and functional organization of the human body and the systems of the body, including the integumentary, cardiovascular, musculoskeletal, immune, respiratory, digestive, urinary, reproductive, nervous, and endocrine systems.

HS.HS.11.4.b Describe the inter-relationship between body systems.

HS.HS.11.4.c Describe common diseases and disorders of each body system.

HEALTH SCIENCE III

COURSE DESCRIPTION

Health Sciences III is designed to expand students' understanding of health sciences through body systems, diseases and disorders, medical terminology, and healthcare economics. Students will generate a solution to a public health issue by obtaining data, applying professional communication, and following legal and ethical standards. Students should acquire basic first aid and CPR/AED (re)certification. Students will continue to gain authentic healthcare career experiences from a health science professional, setting, or educational facility.

STANDARDS AND INDICATORS:

HS.HS.8.1 Describe human anatomy, physiology, common diseases and disorders, and medical terminology.

- HS.HS.8.1.a Identify basic structures and functions of human body systems.
- HS.HS.8.1.b Describe common diseases and disorders related to body systems.
- HS.HS.8.1.c Interpret common roots, prefixes, and suffixes of medical terminology to communicate information related to body systems.

HS.HS.8.2 Analyze components of healthcare economics.

- HS.HS.8.2.a Describe consumer rights and responsibilities within the healthcare system.
- HS.HS.8.2.b Compare types of health care insurance, including private, managed care, and government programs.
- HS.HS.8.2.c Analyze local healthcare availability and accessibility.

HS.HS.8.3 Evaluate various health situations, applying technical skills including basic first aid, CPR/AED, and interpretation of vital sign measurements.

- HS.HS.8.3.a Demonstrate procedures for measuring vital signs and interpreting results.
- HS.HS.8.3.b Demonstrate industry/professional Basic First Aid and CPR/AED or Basic Life Support skills to acquire certification.
- HS.HS.8.3.c Evaluate the use of first aid and emergency responses, defending appropriate response actions.

HEALTH SCIENCES III (cont.)

HS.HS.8.4 Demonstrate healthcare career readiness skills through an experience in a health science professional setting or educational facility.

HS.HS.8.4.a Identify career readiness skills and existing and potential safety hazards within healthcare settings.

HS.HS.8.4.b Compare levels of healthcare professionals and their roles within the healthcare system.

HS.HS.8.4.c Demonstrate career readiness skills and competencies through an experience in a health science professional setting or educational facility (i.e. job shadowing, interview, visit to a professional or educational setting).

HS.HS.8.5 Generate a solution to a community health issue.

HS.HS.8.5.a Obtain community health information and data from health professionals and professional sources.

HS.HS.8.5.b Implement a plan to address a community health issue.

HS.HS.8.5.c Apply legal and ethical considerations to the project (HIPAA, data selection process).

HS.HS.8.5.d Exhibit professional communication skills when working with community stakeholders.

NURSING ASSISTANT / CNA CERTIFICATION

COURSE DESCRIPTION

This is a basic nursing knowledge and skills course for the nurse assistant in a health care setting. It meets the requirements of Public Law 100-203 OBRA and is approved by the Nebraska Department of Health. This course is required to be taught by an R.N. In order for students to receive high school credit, arrangements need to be made to ensure teaching certification.

This Nebraska Department of Health and Human Services document shows Title 172 Chapter 108: approval of training programs and qualifications for nursing assistants in nursing homes.

STANDARDS AND INDICATORS:

HS.HS.13.1 Demonstrate proficiency in the required academic subject matter outlined by 172 NE Admin Rules and Regs ch 172-108-003.

HS.HS.13.1.a Complete a minimum of 75 hours of instruction including at least 16 hours of supervised practical training, including at least one hour of instruction on the responsibility of each nursing assistant to report suspected abuse or neglect pursuant to Neb. Rev. Stat. §§ 28-372 and 28-711 (108-003.01).

HS.HS.13.1.b Demonstrate proficiency in tasks or duties connected with each unit of the components set forth in 172 NAC 108-003 (108-003.03).

HS.HS.13.1.c Complete an approved competency evaluation program consisting of a written or oral examination and a demonstration of skills administered by the Department of Health & Human Services or a Department-approved entity that is not a nursing home that participates in Medicare or Medicaid. (108-003.04)

HS.HS.13.2 Demonstrate career readiness skills to enhance employment opportunities and job satisfaction.

HS.HS.13.2.a Identify the elements of communication using a sender/receiver mode.

HS.HS.13.2.b Identify barriers to communication.

HS.HS.13.2.c Interpret verbal and nonverbal communication.

HS.HS.13.2.d Explain subjective and objective information.

HS.HS.13.2.e Apply speaking and active listening skills.

HS.HS.13.2.f Explain opportunities for continuing education and professional development.

HS.HS.13.2.g Demonstrate the career readiness skills of the healthcare professional.

NURSING ASSISTANT / CNA CERTIFICATION (cont.)

HS.HS.3 Apply healthcare regulations, policies, laws, and legislated rights of clients.

HS.HS.13.3.a	Describe the legal and ethical responsibilities, limitations, and implications of one's actions within the healthcare delivery setting.
HS.HS.13.3.b	Explain standards for Health Insurance Portability and Accountability Act (HIPAA).
HS.HS.13.3.c	Describe advance directives.
HS.HS.13.3.d	Summarize the Patient's Bill of Rights.
HS.HS.13.3.e	Explain tort laws as they apply to healthcare.
HS.HS.13.3.f	Demonstrate procedures for accurate documentation and record keeping.

HS.HS.4 Apply health and safety policies and procedures to prevent injury and illness.

HS.HS.13.4.a	Describe the existing and potential hazards in a healthcare setting to clients, co-workers, and self.
HS.HS.13.4.b	Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.
HS.HS.13.4.c	Apply principles of body mechanics.
HS.HS.13.4.d	Comply with safety signs, symbols, and labels in the work environment.
HS.HS.13.4.e	Demonstrate fire safety and basic emergency response in a healthcare setting.

EMT CERTIFICATION

COURSE DESCRIPTION

This course is designed based upon the Department of Transportation's National Highway Traffic Safety Administration Emergency Medical Technician–Basic National Standard Curriculum. This course is designed to instruct the student to the level of Emergency Medical Technician who serves as a vital link in the chain of the healthcare team. It is recognized that the majority of pre-hospital emergency medical care will be provided by the EMT. This includes all skills necessary for the individual to provide emergency medical care at a basic life level with an ambulance service or other specialized service. This course is designed to prepare the student to take and pass the National Registry certification examination. The course must be taught by a qualified EMT instructor. (NHTSA-EMTBNSC)

STANDARDS AND INDICATORS:

HS.HS.3.1 Assess the nature and seriousness of a patient's condition or extent of injuries to prioritize requirements for emergency medical care.

- HS.HS.3.1.a Perform a scene size up.
- HS.HS.3.1.b Perform an initial patient assessment to quickly and accurately determine if a patient is sick or injured.
- HS.HS.3.1.c Develop a plan for emergency medical care.

HS.HS.3.2 Administer appropriate emergency medical care based on assessment findings of a patient's condition.

- HS.HS.3.2.a Establish and maintain a patent airway for the patient.
- HS.HS.3.2.b Administer appropriate pharmacologic interventions.
- HS.HS.3.2.c Demonstrate appropriate care and management for medical emergencies.
- HS.HS.3.2.d Demonstrate appropriate care and management for trauma emergencies.

HS.HS.3.3 Demonstrate appropriate transport methods for the patient to minimize discomfort and prevent further injury.

- HS.HS.3.3.a Apply the principles of stabilizing, lifting, and carrying.
- HS.HS.3.3.b Demonstrate the proper use of transport equipment.

MEDICATION AIDE CERTIFICATION

COURSE DESCRIPTION

Medication Aide is a course in which an individual receives training in administering medications. This course has a minimum requirement of 40 hours, and students must be 18 years of age in order to sit for the written exam administered by the state board of Health and Human Services. This course must be taught by an R.N. licensed in QMA.

STANDARDS AND INDICATORS:

HS.HS.12.1 Demonstrate key proficiencies of medication aides.

HS.HS.12.1.a Physically demonstrate giving or applying the right medication to the right person at the right time, in the right dose, and by the right route.

HS.HS.12.1.b Demonstrate evidence of proper record-keeping of medication dosages and timing.

HS.HS.12.1.c Demonstrate proper monitoring of patients for desired effects and any side effects, interactions, and contraindications associated with medications.

HS.HS.12.2 Demonstrate key career readiness skills of medication aides.

HS.HS.12.2.a Describe traits of a healthcare professional.

HS.HS.12.2.b Recognize barriers and elements of communication.

HS.HS.12.2.c Recognize subjective and objective information.

HS.HS.12.2.d Demonstrate the ability to follow verbal and nonverbal instructions, including reading and listening.

HS.HS.12.2.e Demonstrate effective communication, active listening, and interpersonal skills with patients and healthcare professionals.

MEDICATION AIDE CERTIFICATION (cont.)

HS.HS.12.3 Apply regulations, policies, laws and legislated rights of clients in the healthcare setting.

HS.HS.12.3.a Describe the legal and ethical responsibilities, limitations, and implications of personal actions within the healthcare delivery setting.

HS.HS.12.3.b Summarize the patient's Bill of Rights.

HS.HS.12.3.c Describe the laws governing harassment, abuse, and neglect.

HS.HS.12.3.d Apply confidentiality standards for Health Insurance Portability and Accountability Act (HIPAA).

HS.HS.12.4 Apply safe work practices and health and safety policies and procedures to prevent injury and illness.

HS.HS.12.4.a Describe existing and potential hazards to clients, co-workers, and self.

HS.HS.12.4.b Interpret safety signs, symbols, and labels in the work environment.

HS.HS.12.4.c Apply personal safety procedures based on Occupational Safety and Health Administration (OSHA) and Centers for Disease Control (CDC) regulations.

HEALTH SCIENCE I

COURSE DESCRIPTION

Health Sciences 1 is designed to give an overview of the therapeutic services, diagnostic services, support services, biotechnology research and development, and health informatics pathways. The course focuses on exploring health science pathways and careers, employability skills, ethical and legal responsibilities, safety practices and technical skills, and the history and current healthcare trends.

STANDARDS AND INDICATORS:

HS.HS.6.1 Explain the history, trends, and career pathways within the healthcare system.

- HS.HS.6.1.a Identify the history of health care.
- HS.HS.6.1.b Identify current trends in healthcare and how they impact healthcare and society.
- HS.HS.6.1.c Describe the various healthcare career pathways.
- HS.HS.6.1.d Describe healthcare careers.
- HS.HS.6.1.e Compare healthcare delivery systems and related agencies.

HS.HS.6.2 Describe legal and ethical standards of healthcare.

- HS.HS.6.2.a Identify aspects of legal considerations related to healthcare.
- HS.HS.6.2.b Describe ethical practices with respect to cultural, social, and ethnical differences within the healthcare environment.

HEALTH SCIENCES I (cont.)

HS.HS.6.3 Analyze career readiness skills to enhance employment opportunities and job satisfaction within the healthcare industry.

HS.HS.6.3.a Identify personal traits and attitudes desirable in a member of a healthcare team.

HS.HS.6.3.b Identify common barriers to communication between healthcare professionals and patients.

HS.HS.6.3.c Summarize professional standards as they apply to various healthcare settings.

HS.HS.6.3.d Explain the role of medical terminology in effective communication in health care.

HS.HS.6.3.e Demonstrate characteristics of an effective team.

HS.HS.6.3.f Demonstrate various forms of professional communication.

HS.HS.6.3.g Analyze personal aptitudes and interests related to health careers.

HS.HS.6.4 Apply technical skills of healthcare professions.

HS.HS.6.4.a Identify existing and potential safety hazards to clients, co-workers, self, and environment within the healthcare setting.

HS.HS.6.4.b Describe proper body mechanics.

HS.HS.6.4.c Demonstrate methods to control the spread of infection.

HS.HS.6.4.d Demonstrate procedures for measuring and recording vital signs.

HS.HS.6.4.e Apply skills to obtain training or certification in cardiopulmonary resuscitation (CPR), automated external defibrillator (AED), foreign body airway obstruction (FBAO), and first aid.

MEDICAL TERMINOLOGY

COURSE DESCRIPTION

This course is designed to help students learn medical language by analyzing its components. The primary focus is on developing both oral and written skills in the language used to communicate within health care professions. This course is a fundamental course for students who are pursuing a career in the healthcare profession. It is the basic language required for all areas of health science and is required for any health care profession beginning with entry level staff.

STANDARDS AND INDICATORS:

HS.HS.11.1 Apply medical terminology.

HS.HS.11.1.a Explain the construction of medical terms including singular and plural form as well as prefixes, suffixes, roots, and combinations.

HS.HS.11.1.b Extract medical information from realistic medical references/documents, hospital medical records, and case studies.

HS.HS.11.1.c Apply medical terminology to real-life scenarios.

HS.HS.11.1.d Apply medical terms relating to medical specialties or personnel, pathology, surgical, and diagnostic procedures.

HS.HS.11.2 Apply medical abbreviations.

HS.HS.11.2.a Identify acceptable and error-prone abbreviations and symbols.

HS.HS.11.2.b Determine time using the 24-hour clock.

HS.HS.11.2.c Apply identified medical abbreviations, symbols, numbers, and quantity measures.

HS.HS.11.3 Apply anatomical terms.

HS.HS.11.3.a Identify terms associated with the planes, cavities, and regions of the body.

HS.HS.11.3.b Describe standard anatomical position as a reference point for identifying areas of the body and organs.

HS.HS.11.3.c Apply directional terms.

MEDICAL TERMINOLOGY (cont.)

HS.HS.11.4 Interpret medical terms related to the anatomy and physiology of body systems.

HS.HS.11.4.a Describe the basic structural and functional organization of the human body and the systems of the body, including the integumentary, cardiovascular, musculoskeletal, immune, respiratory, digestive, urinary, reproductive, nervous, and endocrine systems.

HS.HS.11.4.b Describe the inter-relationship between body systems.

HS.HS.11.4.c Describe common diseases and disorders of each body system.

NUTRITION

(from the Human Sciences and Education Standards)

COURSE DESCRIPTION

This intermediate course provides students with an introduction to the science of nutrition building on concepts from the introductory course. Topics covered include careers in nutrition, digestion and metabolism, functions of the six essential nutrients, nutrient recommendations, diets, meal planning, creating accommodations for consumers, and impacts of the national food system on production and consumerism. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.32.1 Analyze career paths within the food, nutrition, and wellness field.

HSE.HS.32.1.a Summarize education, training, and credentialing requirements and career opportunities in the food, nutrition, and wellness field.

HSE.HS.32.1.b Differentiate between personal attitudes and traits of food, nutrition, and wellness professionals in regards to responsibility, accountability, ethics, and effectiveness in the workplace.

HSE.HS.32.2 Identify and Explain the parts and functions of the digestive system.

HSE.HS.32.2.a Identify the anatomy of the gastrointestinal system.

HSE.HS.32.2.b Explain the digestive process.

HSE.HS.32.2.c Explain the utilization and short, medium, and long-term storage of nutrients inside the body.

HSE.HS.32.2.d Explain how the body excretes waste products.

NUTRITION (cont.)

HSE.HS.32.3 Analyze individual characteristics specific to macronutrients, micronutrients, and water.

HSE.HS.32.3.a Identify the chemical composition and energy yield of carbohydrates, proteins, and fats.

HSE.HS.32.3.b Differentiate between soluble and insoluble fiber and complete and incomplete proteins.

HSE.HS.32.3.c Identify the functions of vitamins, minerals, and water.

HSE.HS.32.3.d Identify the categories of vitamins (including fat and water soluble) and minerals (including major and trace).

HSE.HS.32.3.e Identify the recommended intake levels of and food sources high in vitamins, minerals, and water.

HSE.HS.32.3.f Explain deficiencies and toxicities related to vitamin and mineral consumption.

HSE.HS.32.4 Analyze current dietary recommendations and guidelines for planning a healthy diet.

HSE.HS.32.4.a Explain the Dietary Reference Intake terms Estimated Average Requirement (EAR), Recommended Daily Allowance (RDA), Adequate Intake (AI), and Tolerable Upper Intake Level (UL).

HSE.HS.32.4.b Describe the concepts of variety, moderation, and balance as the foundation of a healthy diet.

HSE.HS.32.4.c Compare and contrast various food recording tools.

HSE.HS.32.4.d Utilize nutrition information to calculate nutrient composition of foods, meals, and daily intake.

HSE.HS.32.4.e Discuss short- and long-term impact of current dietary intake habits.

HSE.HS.32.4.f Compare and contrast the nutrient density of whole foods, convenience foods, and prepared foods to make informed food choices.

NUTRITION (cont.)

HSE.HS.32.5 Analyze the effects of dietary patterns and practices on an individual's health and well-being across the lifespan.

HSE.HS.32.5.a Identify a variety of healthy dietary patterns.

HSE.HS.32.5.b Compare and contrast popular fad diets and food industry trends.

HSE.HS.32.5.c Describe energy balance, physical activity, and weight control to prevent obesity and achieve nutritional adequacy.

HSE.HS.32.5.d Explain weight gain/weight loss concepts considering basal metabolic rate (BMR) and total daily energy expenditure (TDEE).

HSE.HS.32.5.e Identify the prevention, symptoms, and treatment of eating disorders.

HSE.HS.32.5.f Compare and contrast food allergies and food intolerances.

HSE.HS.32.5.g Apply dietary recommendations and guidelines to design meal plans for individuals with special dietary needs (e.g., heart disease, diabetes, celiac disease, etc.)

HSE.HS.32.6 Analyze U.S. and global food systems and impacts on individual, family, and community health.

HSE.HS.32.6.a Explain the biological, social, psychological, economic, political, and/or cultural influences on individual and community nutrition practices.

HSE.HS.32.6.b Summarize the effects of social determinants on personal food choices, food systems, and public health.

HSE.HS.32.6.c Explain the impact of cultural influences on food consumption and traditions within family units.

HSE.HS.32.6.d Analyze the impact of the rising cost of food, poverty, food deserts, food insecurity, and the growing world population on individuals, families, communities, and society.

HSE.HS.32.6.e Compare and contrast food and nutrition policies and their impact on individuals, families, communities, and society.

HSE.HS.32.6.f Discuss different approaches and solutions including the critical science perspective to address food system change through advocacy, policy, and/or political action.

INTRODUCTION TO SPORTS MEDICINE

COURSE DESCRIPTION

This course is designed for students who may be interested in a career in Sports Medicine. This course should feature the prevention, recognition, treatment, and rehabilitation of illness or injury caused by physical activity or athletics. Topics may include proper bracing and supporting, use of protective gear, treatment modalities, anatomy and physiology, body mechanics, and medical terminology. Students may learn to measure cardiorespiratory endurance, flexibility, body composition, and blood pressure.

STANDARDS AND INDICATORS:

HS.HS.10.1 Analyze information related to sports medicine fields.

HS.HS.10.1.a Identify the careers that make up a sports medicine team.

HS.HS.10.1.b Compare various careers related to sports medicine.

HS.HS.10.1.c Describe legal issues surrounding sports medicine.

HS.HS.10.1.d Describe how psychological factors influence sports, exercise, and physical activity.

HS.HS.10.1.e Connect related medical terminology to the human body.

HS.HS.10.1.f Exhibit sports medicine career readiness skills through an authentic experience (i.e. job shadow, interview a professional, hands-on clinical simulation, visit to a professional setting, guest speaker).

HS.HS.10.2 Explain injury prevention principles and performance enhancement philosophies.

HS.HS.10.2.a Explain how proper conditioning, strength training, and body mechanics practices serve as preventive measures to various types of illness and injury.

HS.HS.10.2.b Explain non-pharmaceutical performance enhancement methods for controlling body movement during sports, exercise, and physical activity.

INTRODUCTION TO SPORTS MEDICINE (cont.)

HS.HS.10.3 Analyze the impact of sports nutrition on injury prevention and the recovery process.

HS.HS.10.3.a Explain the key components of dietary recommendations for proper nutrition.

HS.HS.10.3.b Explain the impact of nutrition on injury and the healing process.

HS.HS.10.3.c Analyze the role of nutrition in exercise and sports performance.

HS.HS.10.4 Evaluate common and sports-specific injuries, injury management, and rehabilitation techniques.

HS.HS.10.4.a Identify sports-specific injuries and medical conditions affecting the musculoskeletal and nervous systems.

HS.HS.10.4.b Demonstrate proper management of injuries and medical conditions with non-surgical interventions (i.e. bracing, taping).

HS.HS.10.4.c Analyze therapeutic modalities for treatment and intervention.

LIFESPAN NUTRITION & WELLNESS

(from the Human Sciences and Education Standards)

COURSE DESCRIPTION

This capstone course focuses on nutritional needs throughout the lifespan building on concepts from the introductory and intermediate courses. This course focuses on connecting lifespan development to nutrition and exercise practices with the intent of contributing to wellness and longevity. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.31.1 Identify and explain basic nutrition principles for meeting nutrition and wellness needs.

- HSE.HS.31.1.a Identify the function and nutrient dense sources of the six essential nutrients.
- HSE.HS.31.1.b Explain current dietary recommendations.
- HSE.HS.31.1.c Calculate energy intake for weight management.
- HSE.HS.31.1.d Describe useful nutrition assessment tools for use with each stage of the lifespan.
- HSE.HS.31.1.e Explain resources for nutrition and wellness needs to use with each stage of the lifespan.

HSE.HS.31.2 Evaluate nutrition and wellness needs during pre-conception, pregnancy, and lactation.

- HSE.HS.31.2.a Analyze the essential nutrients for optimal health for individuals during pre-conception, pregnancy and lactation.
- HSE.HS.31.2.b Explain nutrition-related medical conditions that may occur during pregnancy and their impact on the mother and fetus.
- HSE.HS.31.2.c Classify the recommendations for physical activity during preconception and pregnancy.
- HSE.HS.31.2.d Compare and contrast the ideal diet for a pregnant woman with the ideal diet for a lactating mother, highlighting the specific nutritional differences.
- HSE.HS.31.2.e Explain circumstances under which a mother should not breastfeed.

LIFESPAN NUTRITION & WELLNESS (cont.)

HSE.HS.31.3 Evaluate nutrition and wellness needs during infancy, toddler, preschool, and middle childhood stages.

HSE.HS.31.3.a Summarize the connection between good nutrition and physical, intellectual, emotional, and social development.

HSE.HS.31.3.b Identify diet recommendations for infants, toddlers, preschoolers, and primary grade children.

HSE.HS.31.3.c Compare the nutritional value of breastmilk to the nutritional value of formula.

HSE.HS.31.3.d Explain specific nutrient roles in the body of a developing child, giving special attention to vitamins and minerals.

HSE.HS.31.3.e Examine the role of a caregiver in providing food from infancy through middle childhood.

HSE.HS.31.3.f Describe the challenges associated with children's diets and outline strategies for dealing with such problems (e.g., childhood allergies, childhood obesity, aversions, influence of media and screen time).

HSE.HS.31.4 Evaluate nutrition and wellness needs during adolescence.

HSE.HS.31.4.a Explain the growth and consequent nutritional needs of adolescence.

HSE.HS.31.4.b Describe how eating patterns in adolescents affect overall health (e.g., sleep quality, energy, mood, physical development).

HSE.HS.31.4.c Identify nutrition-related medical conditions that may occur during adolescence along with prevention/intervention strategies.

HSE.HS.31.4.d Explain the spectrum of body dissatisfaction, dieting, disordered eating, and eating disorders.

HSE.HS.31.4.e Explain the recommendations for physical activity during adolescence.

LIFESPAN NUTRITION & WELLNESS (cont.)

HSE.HS.31.5 Evaluate the difference between the recommendations for a typical adolescent versus an adolescent involved in vigorous physical activity.

HSE.HS.31.5.a Describe the role of each nutrient for peak performance of the physically active adolescent.

HSE.HS.31.5.b Differentiate nutrient needs based on type, frequency, intensity, and duration of exercise.

HSE.HS.31.5.c Summarize the recommendations for assessing and maintaining healthy hydration.

HSE.HS.31.5.d Evaluate pre- and post-workout diet plans and timing of meals and snack intake for the physically active adolescent.

HSE.HS.3156.e Describe supplements and their use.

HSE.HS.31.6 Evaluate nutrition and wellness needs during adulthood and older adulthood.

HSE.HS.31.6.a Identify nutrient needs for adulthood and why they change over time.

HSE.HS.31.6.b Outline nutrition-related medical conditions that may occur during adulthood along with prevention/intervention strategies.

HSE.HS.31.6.c Identify strategies for weight management and the challenges of weight management during adulthood and older adulthood.

HSE.HS.31.6.d Examine the role of nutrition in fostering longevity and in reducing the risk of chronic diseases.

HSE.HS.31.6.e Explain the recommendations for physical activity during adulthood.

HSE.HS.31.7 Identify career options as they pertain to nutrition and wellness throughout the lifespan.

HSE.HS.31.7.a Identify a variety of careers related to nutrition and wellness through the lifespan (e.g., job shadowing, guest speakers, interview professionals, visit a professional or educational setting).

HSE.HS.31.7.b Summarize skills and knowledge necessary for a successful career in nutrition and wellness careers.

HSE.HS.31.7.c Identify professional and ethical considerations in various nutrition and wellness work settings.

NEBRASKA CAREER AND TECHNICAL EDUCATION



CTE®
Learning that works for Nebraska

NEBRASKA DEPARTMENT OF EDUCATION

HUMAN SCIENCES AND EDUCATION

PROGRAM OF STUDY STANDARDS

EDUCATION & TRAINING

HUMAN SERVICES

LAW, PUBLIC SAFETY, CORRECTIONS, & SECURITY

GOVERNMENT & PUBLIC ADMINISTRATION

NEBRASKA CAREER AND TECHNICAL EDUCATION STATE MODEL PROGRAMS OF STUDY

CAREER FIELD OVERVIEW

The Human Sciences and Education Career Field Area provides opportunities for students to deepen their understanding of topics in areas such as family and consumer sciences, education and training, government and public administration, counseling and mental health, food and nutrition science, health and wellness, housing and interior design, human growth and development, early childhood education, personal relationships, textiles and apparel design, culinary arts, hospitality and tourism, family and community services, merchandising, and law, public safety, and security.

PROGRAMS OF STUDY

Programs of Study are the primary delivery model for Career and Technical Education (CTE) in Nebraska. They include a sequence of courses which progresses in specificity and rigor and are updated regularly to align with Nebraska's workforce needs and economic development priorities. This document includes the programs of study and course-based standards for the Human Sciences and Education career field. These state model programs of study were developed to:

- Assist secondary schools in creating meaningful sequences of courses that adequately prepare individuals for seamless transitions to postsecondary education and careers eliminating duplication of coursework;
- Assist students in identifying appropriate courses for high school and postsecondary education that lead to their chosen career;
- Encourage collaboration between secondary and postsecondary education through curricular alignment;
- Offer opportunities for high-quality workplace experiences aligned to students' career interests;
- Promote the advancement of early postsecondary opportunities (including dual-credit courses) for all students; and
- Support postsecondary education options for students to further prepare them for successful transitions to their future careers.

Nebraska's programs of study are organized around Nebraska's CTE Model, which provides a way for students to explore the diversity of career options available to them.

NEBRASKA CAREER AND TECHNICAL EDUCATION MODEL

1 CORE ACADEMICS AND CAREER READINESS

At the center of the NCE Model is the expectation for all students to develop a solid academic core. The next ring identifies specific career readiness standards and practices that prepare students for success in postsecondary education as well as entrepreneurship/employment.

2 CAREER FIELDS

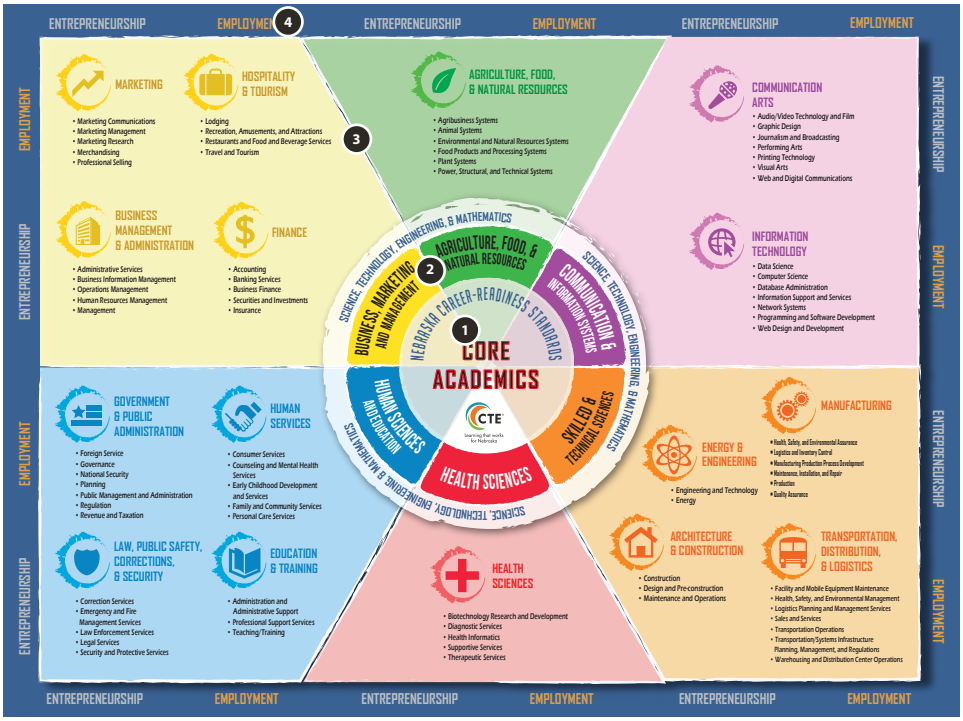
The six career fields represent broad sectors of the job market on which students may choose to focus.

3 CAREER CLUSTERS

Each career field is composed of career clusters radiating out from it. The clusters are more specific segments of the labor market. Each cluster is a grouping of careers that focus on similar subjects or similar skills. A basic understanding and exploration of each of the clusters will provide students with a solid foundation for career decision-making to conceptualize the entire world of work.

4 EMPLOYABILITY AND ENTREPRENEURSHIP

Career education provides the opportunity to gain the knowledge and skills for both employment and entrepreneurship. The reality for Nebraska and the United States is that entrepreneurship will help ensure economic growth and vitality. By infusing entrepreneurship competencies, career education is helping create the next generation of America's innovators and entrepreneurs.



The model is a visual map of "career fields" and "career clusters/pathways" and organizes the 16 National Career Clusters into six broad sectors of entrepreneurship and employment:

- Agriculture, Food and Natural Resources
- Business, Marketing and Management
- Communication and Information Systems
- Health Sciences
- Human Sciences and Education
- Skilled and Technical Sciences

These fields break down into more specific Career Clusters, Pathways and Occupational Specialties. The model provides a way for:

- Students to explore the diversity of career options available to them.
- Students to begin to prepare for their career with plans for secondary and post-secondary education.
- Schools to organize curriculum into Programs of Study that prepare students for opportunities in Nebraska's economy.

COURSE SEQUENCING

The courses within the State Model Program of Study are intended to be offered sequentially, to allow learners to build upon foundational knowledge and skills learned in introductory and intermediate courses and applied in more advanced capstone coursework. Non-duplicative sequences of courses ensure students transition to postsecondary education without duplication of classes and content. CTE enrollment data is collected at the course level. Students who participate and concentrate in CTE generally have more positive outcomes such as higher graduation rates along with postsecondary success.

Introductory Courses

Introductory courses set the foundation for a program of study by introducing students to broad foundational knowledge relative to an occupational area and career field.

Intermediate Courses

Intermediate courses build on the foundational knowledge of Introductory courses to further develop the academic, technical, and career readiness skills within a particular career field and occupational area.

Capstone Courses

Capstone courses are occupationally specific and further develop the necessary and required academic, technical, and career readiness skills needed for seamless transitions to postsecondary education and employment. Capstone courses often provide opportunities for students to earn postsecondary credit.

Levels of Participation

CTE Participant

A student who has earned one or more credits in any career and technical education program area.

CTE Concentrator

A secondary student who, in grades 9 through 12, has earned credit in at least two courses in a single career cluster program at the intermediate or capstone level.

State Model Programs of Study are coordinated, nonduplicative sequences of academic and technical content at the secondary and postsecondary levels that incorporate challenging State academic standards, address both academic and technical knowledge and skills, including Nebraska's Career Readiness Skills, are aligned with the needs of industries in Nebraska's economy, progress in specificity, have multiple entry and exit points that incorporate credentialing, and culminate in the attainment of a recognized postsecondary credential.

COURSE-BASED STANDARDS

Individual CTE courses, which make up the sequence of courses for Programs of Study, include content area standards and indicators to provide a framework for quality teaching and learning. While not required by state law, districts are encouraged to adopt these State Model Programs of Study and their related course-based standards. CTE State Model Programs of Study and course-based standards are revised on a five-year cycle to remain responsive to the rapid advances and needs of business and industry, help students explore a variety of postsecondary options and corresponding entrance requirements to help identify their next steps, and to align to changes in postsecondary programs.

Standards

At the highest level of generality, content area standards include a set of broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of students. They reflect long-term goals for learning.

Indicators

Under each standard are indicators, which further describe what a student must know and be able to do to meet the standard. Indicators are performance-based statements that provide educators with a clear understanding of the expected level of student learning and guidance. Indicators provide guidance for an assessment of student learning.

EXPANDED LEARNING OPPORTUNITIES

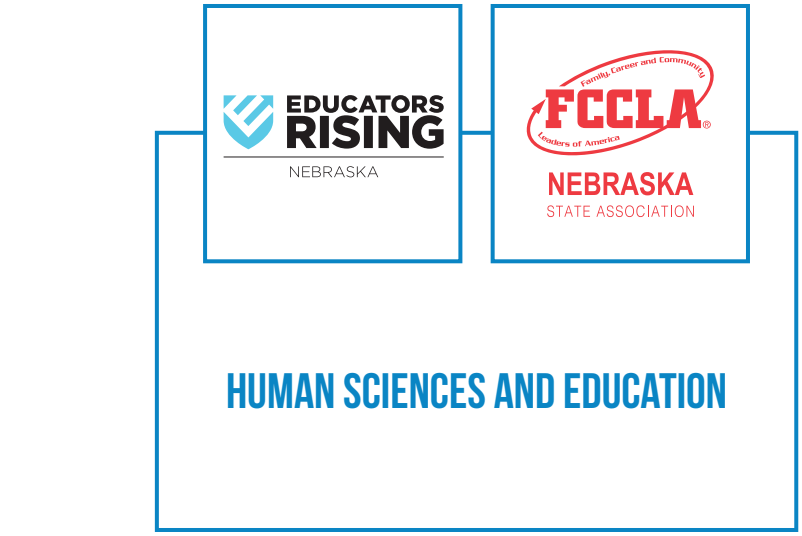
Expanded learning opportunities build on, support, and enhance learning within and outside of regular school programming. They are a critical component of Nebraska's educational landscape and should be intentionally supported to further develop students' college and career readiness. To signal aligned expanded learning opportunities, each Program of Study identifies additional areas where students may desire to personalize their program and take additional coursework or work-based learning that aligns with their interests. These expanded learning opportunities are not considered part of a Program of Study nor are they required, but rather a meaningful opportunity for students to continue to learn after completing the Program of Study sequence of courses within the context of their career interests. Along with aligned coursework, two prominent expanded learning opportunities include participating in Work-based Learning or a Career and Technical Student Organization.

Work-Based Learning

Work-Based Learning (WBL) connects learners with employers to prepare them for success in an everchanging workplace. WBL is a planned program of meaningful experiences related to the career interests of learners that enables them to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. WBL is learning through work, not simply learning about work. Expanding high-quality WBL opportunities for students is one of Nebraska's CTE strategic priorities and is a program quality accountability indicator. Nebraska CTE affirms WBL as a critical component of career development. Throughout the State Model Programs of Study, courses where WBL is embedded into the class is noted in the course title (e.g., "Education & Training Work-Based Learning Experience"). It is also signaled as an expanded learning opportunity across all programs of study.

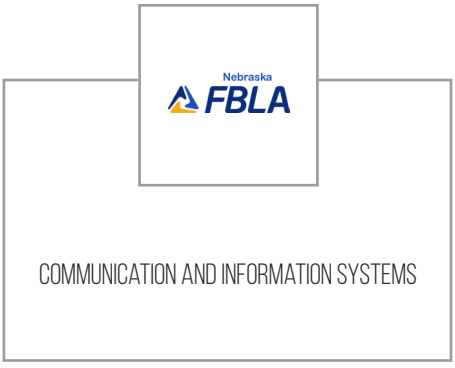
Career And Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are an extension of classroom instruction—applying classroom learning to real-world experiences. CTSOs provide opportunities for all students to develop career readiness skills through activities, competitions, and community service. Nebraska recognizes seven CTSOs aligned with the state's Programs of Study and career field areas. These include:













CAREER READINESS STANDARDS

Embedded into the State Model Programs of Study and courses are the Nebraska Career Readiness standards. These standards rest on important "practices and proficiencies" with long-standing importance in career education. These standards and related practices are not limited to formal CTE programs nor to the middle school or high school level. Rather, these standards and practices should be used over and over again with increasing complexity and relevance by students as they progress through their educational pathway. The standards themselves do not dictate curriculum, pedagogy or delivery of content. Schools and colleges may handle the teaching and assessing of these standards in many different ways.

THE CAREER READY INDIVIDUAL...



1. Applies appropriate academic and technical skills



2. Communicates effectively and appropriately



3. Contributes to employer and community success



4. Makes sense of problems and perseveres in solving them



5. Uses critical thinking



6. Demonstrates innovation and creativity



7. Models ethical leadership and effective management



8. Works productively in teams and demonstrates cultural competency



9. Utilizes technology



10. Manages personal career development



11. Attends to personal and financial well-being

HUMAN SCIENCES AND EDUCATION

PROGRAMS OF STUDY



EDUCATION & TRAINING CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
EDUCATION & TRAINING (Pages 11–25)	350001 - Teaching as a Profession, AND 090123 - Lifespan Development	350002 - Best Practices in Education & Training with Work-Based Learning	350003 - Education & Training Practicum with Work-Based Learning	090119 - Child Development, OR 090127 - Families in Crisis, OR Introduction to Education Dual Credit, OR 320706 - Education & Training Work-Based Learning Experience



HUMAN SERVICES CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
CHILD, YOUTH, & FAMILY STUDIES (Pages 26–49)	090123 - Lifespan Development, OR 090101 - Introduction to Family & Consumer Sciences	090119 - Child Development, OR 090117 - Parents & Families, OR 090127 - Families in Crisis	090116 - Interpersonal Relationships, OR 090132 - Family & Community Advocacy, OR	090104 - Life & Career Readiness, OR 320712 - Human Services Work-Based Learning Experience
COUNSELING & MENTAL HEALTH (Pages 50–69)	090101 - Introduction to Family & Consumer Sciences, OR 090128 - Careers in Mental Health	090127 - Families in Crisis	090132 - Family & Community Advocacy, OR 151200 - Psychology, OR 151210 - AP Psychology, OR 151300 - Sociology	090116 - Interpersonal Relationships, OR 077801 - Behavioral Health 1 (HS), OR 077802 - Behavioral Health 2 (HS), OR 320712 - Human Services Work-Based Learning Experience



HUMAN SERVICES CLUSTER **(CONTINUED)**

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
DESIGN (Pages 70–89)	090126 - Introduction to Design	090103 - Apparel Production & Construction, OR 090109 - Home Design and Interiors, OR 090206 - Fashion Design	032370 - Entrepreneurship (BMM), OR 032600 - College Introduction to Entrepreneurship, OR 270613 - Advanced Digital Design (CIS)	038100 - Marketing (BMM), OR 038200 - Advanced Marketing (BMM), OR 320712 - Human Sciences Work-Based Learning Experence
EARLY CHILDHOOD EDUCATION (Pages 90–108)	090101 - Introduction to Family & Consumer Sciences, OR 090123 - Lifespan Development	090119 - Child Development, AND 090134 - Best Practices in Early Childhood Education with Work-Based Learning	090122 - Early Childhood Education Practicum with Work-Based Learning	Early Childhood Education Dual Credit, OR 090127 - Families in Crisis, OR 090132 - Family & Community Advocacy, OR 320712 - Human Services Work-Based Learning Experience
FOOD SCIENCE (Pages 109–126)	090107 - Fundamentals of Nutrition & Culinary Essentials,	090124 - Nutrition	090113 - Food Science	032370 - Entrepreneurship (BMM), OR 320702 - Introduction to AFNR, OR 090133 - Lifespan Nutrition & Wellness, OR 320712 - Human Sciences Work-Based Learning Experience
NUTRITION & WELLNESS (Pages 127–141)	090107 - Fundamentals of Nutrition & Culinary Essentials, OR 090101 - Introduction to Family & Consumer Sciences	090124 - Nutrition	090133 - Lifespan Nutrition & Wellness	090113 - Food Science, OR 077601 - Exercise Science, OR Nutrition Dual Credit, OR 320712 - Human Sciences Work-Based Learning Experience



LAW, PUBLIC SAFETY, CORRECTIONS, & SECURITY CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
CORRECTIONS & LAW ENFORCEMENT SERVICES (Pages 142–154)	390010 - Foundations of Law, Public Safety, Corrections, & Security	390015 - Introduction to Criminal Justice, OR 390030 - Introduction to Corrections	390025 - Courts & Judicial Processes, OR 390026 - Police & Society, OR	151200 - Psychology, OR 151210 - AP Psychology, OR 151300 - Sociology, OR 090127 - Families in Crisis, OR 320714 - Law, Public Safety, Corrections, & Security Work-Based Learning Experience
EMERGENCY & FIRE MANAGEMENT (Pages 155–159)	390010 - Foundations of Law, Public Safety, Corrections, & Security	390021 - Emergency & Fire Management	077402 - Emergency Medical Technical Certification (HS)	077600 - Medical Terminology (HS), OR 320714 - Law, Public Safety Work-Based Learning Experience

TEACHING AS A PROFESSION

COURSE DESCRIPTION

This introductory course is designed to introduce students to career opportunities and related skills in the field of education and training. Topics covered include history of education, the philosophy of education, roles of educators, instructional and assessment methods, diversity of cultures and communities, learner development, and professional development.

STANDARDS AND INDICATORS:

HSE.HS.35.1 Examine teaching career opportunities.

- HSE.HS.35.1.a Identify careers and roles within the educational system.
- HSE.HS.35.1.b Compare and contrast preschool, elementary, middle, and high school experiences.
- HSE.HS.35.1.c Investigate the educational and experience requirements for each profession.

HSE.HS.35.2 Examine the historical roots of education in the United States and the implications on education today.

- HSE.HS.35.2.a Describe the history of education through the centuries.
- HSE.HS.35.2.b Identify elements of the daily routine of school and how routines have differed throughout history.
- HSE.HS.35.2.c Discuss educational equity throughout history.
- HSE.HS.35.2.d Identify issues and trends for the future of education.

HSE.HS.35.3 Distinguish the roles and responsibilities for stakeholders within the education system.

- HSE.HS.35.3.a Identify the teacher's roles and responsibilities in educating students.
- HSE.HS.35.3.b Identify the students' roles and responsibilities for their own educational learning.
- HSE.HS.35.3.c Identify roles and responsibilities for administrators, counselors, coaches, and others in the educational setting.
- HSE.HS.35.3.d Identify roles and responsibilities for parents, guardians, and other caregivers.
- HSE.HS.35.3.e Identify roles and responsibilities for community members, including school board members, government representatives, and the general population.

TEACHING AS A PROFESSION (cont.)

HSE.HS.35.4 Analyze how learners grow and develop.

- HSE.HS.35.4.a Explain the physical, emotional, social, and intellectual development of humans.
- HSE.HS.35.4.b Explain how learning theory, human development, and individual differences impact teaching and learning.
- HSE.HS.35.4.c Identify learning environments and their potential impact on teaching and learning.
- HSE.HS.35.4.d Explain cultural, social, political, and economic aspects that impact student learning.
- HSE.HS.35.4.e Describe modalities of instruction (e.g., hybrid learning, remote, in person) and implications on learners.

HSE.HS.35.5 Analyze different teaching philosophies.

- HSE.HS.35.5.a Describe the history of various teaching philosophies.
- HSE.HS.35.5.b Analyze how teaching philosophies play a part in today's education.
- HSE.HS.35.5.c Recognize the difference between teacher-centered and learner-centered instruction.
- HSE.HS.35.5.d Relate student experiences to educational psychology theories

HSE.HS.35.6 Define different methods of assessment.

- HSE.HS.35.6.a Identify the role and function of assessment in classroom instruction.
- HSE.HS.35.6.b Recognize formative and summative assessments.
- HSE.HS.35.6.c Identify the purposes of different assessment types.

HSE.HS.35.7 Demonstrate career ready practices that develop leaders within education career pathways.

- HSE.HS.35.7.a Observe professionals within their work setting.
- HSE.HS.35.7.b Identify skills professionals must acquire to be effective educators.
- HSE.HS.35.7.c Demonstrate ethical behavior as a future education professional.

LIFESPAN DEVELOPMENT

COURSE DESCRIPTION

This introductory course explores the physical, intellectual, emotional, and social development of individuals across the lifespan from conception to death. Topics covered are external impacts on development including family structure and practices, theories of development, social and technological forces, and resources available to individuals and their outcomes.

STANDARDS AND INDICATORS:

HSE.HS.30.1 Evaluate principles of growth and development from conception through infancy.

HSE.HS.30.1.a	Describe theories, current issues, and trends.
HSE.HS.30.1.b	Identify physical, intellectual, emotional, and social development milestones.
HSE.HS.30.1.c	Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.1.d	Explain brain structure and development for this stage of life.
HSE.HS.30.1.e	Describe services and supports needed when developmental milestones are not met.
HSE.HS.30.1.f	Analyze family system roles and dynamics and how they contribute to development.
HSE.HS.30.1.g	Describe skills needed to work and engage with individuals in this stage of development.

HSE.HS.30.2 Evaluate principles of growth and development from infancy through childhood.

HSE.HS.30.2.a	Describe theories, current issues, and trends.
HSE.HS.30.2.b	Identify physical, intellectual, emotional, and social development milestones.
HSE.HS.30.2.c	Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.2.d	Explain brain structure and development for this stage of life.
HSE.HS.30.2.e	Describe services and supports needed when developmental milestones are not met.
HSE.HS.30.2.f	Analyze family system roles and dynamics and how they contribute to development.
HSE.HS.30.2.g	Demonstrate skills needed to work and engage with individuals in this stage of development.

LIFESPAN DEVELOPMENT (cont.)

HSE.HS.30.3 Evaluate principles of growth and development from childhood through adolescence.

HSE.HS.30.3.a Describe theories, current issues, and trends.

HSE.HS.30.3.b Identify physical, intellectual, emotional, and social development milestones.

HSE.HS.30.3.c Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).

HSE.HS.30.3.d Explain brain structure and development for this stage of life.

HSE.HS.30.3.e Describe services and supports needed when developmental milestones are not met.

HSE.HS.30.3.f Analyze family system roles and dynamics and how they contribute to development.

HSE.HS.30.3.g Demonstrate skills needed to work and engage with individuals in this stage of development.

HSE.HS.30.4 Evaluate principles of growth and development from adolescence through early adulthood.

HSE.HS.30.4.a Describe theories, current issues, and trends.

HSE.HS.30.4.b Identify physical, intellectual, emotional, and social development milestones.

HSE.HS.30.4.c Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).

HSE.HS.30.4.d Explain brain structure and development for this stage of life.

HSE.HS.30.4.e Describe services and supports needed when developmental milestones are not met.

HSE.HS.30.4.f Analyze family system roles and dynamics and how they contribute to development.

HSE.HS.30.4.g Demonstrate skills needed to work and engage with individuals in this stage of development.

LIFESPAN DEVELOPMENT (cont.)

HSE.HS.30.5 Evaluate principles of growth and development from middle to late adulthood through the end of life.

HSE.HS.30.5a	Describe theories, current issues, and trends.
HSE.HS.30.5.b	Identify physical, intellectual, emotional, and social milestones.
HSE.HS.30.5.c	Explain conditions influencing well-being (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.5.d	Explain brain structure and development for this stage of life.
HSE.HS.30.5.e	Describe services and supports needed for well-being.
HSE.HS.30.5.f	Analyze family system roles and dynamics and how they contribute to the well-being of individuals.
HSE.HS.30.5.g	Describe skills needed to work and engage with individuals in this stage of development.

BEST PRACTICES IN EDUCATION AND TRAINING WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This intermediate course will focus on best practices in education building on concepts from the introductory courses. Topics covered include instructional and assessment methods, differentiated instruction, development of communication skills necessary for educators, and instruction planning. Knowledge and skills will be applied within a structured work-based learning experience, which may take place in a school, community, or business and industry setting. The focus of the hands-on experience will be immersion in an educational setting.

STANDARDS AND INDICATORS:

HSE.HS.3.1 Synthesize how learners grow and develop.

HSE.HS.3.1.a	Recognize that patterns of learning and development vary individually within and across the physical, intellectual, emotional, and social areas of development.
HSE.HS.3.1 b	Summarize conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.3.1.c	Create developmentally appropriate instruction that meets student needs.

HSE.HS.3.2 Assess and implement appropriate strategies to differentiate instruction and engage all learners.

HSE.HS.3.2.a	Summarize the importance of differentiated instruction.
HSE.HS.3.2.b	Identify levels of cognition for the purposes of lesson planning.
HSE.HS.3.2.c	Implement different instructional strategies appropriate for varied levels of cognition.
HSE.HS.3.2.d	Utilize technology to support lesson planning.
HSE.HS.3.2.e	Develop appropriate sequencing of learning experiences and provide multiple ways for learners to demonstrate knowledge and skills.
HSE.HS.3.2.f	Evaluate appropriate assessment practices.

BEST PRACTICES IN EDUCATION AND TRAINING WITH WORK-BASED LEARNING (cont.)

HSE.HS.3.3 Analyze methods of assessment and their uses.

HSE.HS.3.3.a Differentiate between formative and summative assessments.

HSE.HS.3.3.c Construct appropriate assessments for a variety of concepts.

HSE.HS.3.3.d Analyze data from assessments to inform planning.

HSE.HS.3.3.e Utilize technology to support assessment practices.

HSE.HS.3.4 Integrate the diverse needs of students into lesson design.

HSE.HS.3.4.a Explain the Individuals with Disabilities Education Act.

HSE.HS.3.4.b Identify Individual Education Plans (IEPs) and 504 Plans.

HSE.HS.3.4.c Identify the needs of students who are English Language Learners (ELL).

HSE.HS.3.4.d Identify the needs of students who are High Ability Learners (HAL).

HSE.HS.3.4.e Develop learning strategies and assessments with student needs.

HSE.HS.3.5 Demonstrate effective communication and positive feedback strategies.

HSE.HS.3.5.a Practice effective communication skills needed for the education profession (e.g., listening, speaking, non-verbal communication, verbal communication and written communication).

HSE.HS.3.5.b Identify the differences between positive and negative feedback strategies.

HSE.HS.3.5.c Develop a variety of positive feedback strategies.

BEST PRACTICES IN EDUCATION AND TRAINING WITH WORK-BASED LEARNING (cont.)

HSE.HS.3.6 Differentiate leadership roles and opportunities for collaboration.

HSE.HS.3.6.a Describe the importance of professional development in the education field.

HSE.HS.3.6.b Identify patterns of involvement with students and families outside of the classroom and how that relates to student success.

HSE.HS.3.6.c Summarize the role of elected school board members, administrators, and teachers as leaders within the school system.

HSE.HS.3.7 Model best practices through a work-based learning experience.

HSE.HS.3.7.a Evaluate physical, intellectual, emotional, and social development at various grade levels.

HSE.HS.3.7.b Design lessons with strategies appropriate for all learners.

HSE.HS.3.7.c Evaluate assessments.

HSE.HS.3.7.d Demonstrate effective communication within the practicum experience.

HSE.HS.3.7.e Demonstrate effective leadership.

EDUCATION AND TRAINING PRACTICUM WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This capstone course will focus on the thought processes needed in education building on concepts from the introductory and intermediate courses. Topics covered include ethics in education, instructional strategies, equitable learning opportunities, and effective, inclusive communication. Knowledge and skills will be applied within a structured work-based learning experience, which may take place in a school, community, or business and industry setting. The focus of the practicum experience will be on the improvement of instructional strategies.

STANDARDS AND INDICATORS:

HSE.HS.11.1 Analyze current policies and ethics of the education profession.

HSE.HS.11.1.a Explain safe, legal, and ethical use of information and technology including appropriate documentation of sources and respect for others in the use of social media.

HSE.HS.11.1.b Explain the laws related to learners' rights and teachers' responsibilities (e.g., FAPE, confidentiality, privacy, child abuse).

HSE.HS.11.1.c Explain the expectations of the profession including code of ethics and professional standards of practice, relevant law, and policies.

HSE.HS.11.1.e Identify opportunities to draw upon current education policy and research as sources of analysis and reflection to improve practice.

HSE.HS.11.2 Adapt a variety of instructional strategies for different levels of cognition.

HSE.HS.11.2.a Apply a variety of instructional strategies in lesson design.

HSE.HS.11.2.b Adapt instructional strategies for students with diverse needs.

HSE.HS.11.2.c Analyze assessment data to learn if instructional strategies were effective.

HSE.HS.11.3 Model cultural competence to provide fair and equitable learning opportunities.

HSE.HS.11.3.a Recognize implicit and explicit biases to establish an anti-bias learning environment.

HSE.HS.11.3.b Identify school-based inequities.

HSE.HS.11.3.c Establish environments where learners feel safe and appreciated.

EDUCATION AND TRAINING PRACTICUM WITH WORK-BASED LEARNING (cont.)

HSE.HS.11.4 Analyze how learner diversity can affect communication.

HSE.HS.11.4.a Differentiate knowledge of communication differences among diverse populations.

HSE.HS.11.4.b Demonstrate cultural competence while working productively in teams.

HSE.HS.11.5 Model teaching practices with the goal of continuous improvement through a work-based learning experience.

HSE.HS.11.5.a Evaluate the practicum experience.

HSE.HS.11.5.b Implement continual appraisal of performance and identify strengths and weaknesses.

HSE.HS.11.5.c Develop a plan for continuous professional learning.

HSE.HS.11.5.d Model the positive attributes of effective leaders (e.g., self awareness, self regulation, motivation, empathy).

CHILD DEVELOPMENT

COURSE DESCRIPTION

This intermediate course provides an overview of developmental stages in the prenatal period through 12 years of age building on concepts from the introductory course(s). Topics covered include how young children attain knowledge, behaviors, and skill and theories of child development to identify the effects of parenting practices, social, cultural, and linguistic diversity. The impact of quality child care and early childhood education on child growth and development will also be explored.

STANDARDS AND INDICATORS:

HSE.HS.5.1 Explain the basic principles of child development from conception to age 12.

- HSE.HS.5.1.a Explain physical development milestones from conception to age 12.
- HSE.HS.5.1.b Explain intellectual development milestones from conception to age 12.
- HSE.HS.5.1.c Explain emotional development milestones from conception to age 12.
- HSE.HS.5.1.d Explain social development milestones from conception to age 12.

HSE.HS.5.2 Evaluate child development theoretical perspectives and their applications.

- HSE.HS.5.2.a Identify the various child development theorists and theories.
- HSE.HS.5.2.b Evaluate developmentally appropriate child care skills from conception to age 12.
- HSE.HS.5.2.c Identify parenting decisions and practices that impact healthy development from conception to age 12.

HSE.HS.5.3 Analyze family theoretical perspectives and their impact on child growth and development.

- HSE.HS.5.3.a Compare and contrast theorists and theories related to family traits and child growth and development.
- HSE.HS.5.3.b Classify different parenting types and styles.
- HSE.HS.5.3.c Compare and contrast the different parenting styles.
- HSE.HS.5.3.d Explain the impact parenting styles have on the development of young children.

CHILD DEVELOPMENT (cont.)

HSE.HS.5.4 Analyze the theoretical perspectives of social, cultural, and linguistic diversity traits and their impact on child growth and development.

HSE.HS.5.4.a Compare and contrast theorists and theories related to social, cultural, and linguistic diversity guiding childhood behaviors.

HSE.HS.5.4.b Recognize and classify different social, cultural, and linguistic diversity traits of children.

HSE.HS.5.4.c Compare and contrast the impact of the multiple influences that affect the social, cultural, and linguistic diversity traits of young children.

HSE.HS.5.4.d Explain the importance of early childhood education.

HSE.HS.5.5 Describe an understanding of career opportunities and early childhood community resources for supporting families in young children's development.

HSE.HS.5.5.a Describe career opportunities in the field of early childhood.

HSE.HS.5.5.b Identify college certificates and degree options in the field of early childhood.

HSE.HS.5.5.c Identify community resources available for supporting families with young children and their development.

HSE.HS.5.5.d Identify the purpose of the National Association for the Education of Young Children (NAEYC), Nebraska Early Childhood Profession Record System (NECPRS), and other early childhood education resources.

FAMILIES IN CRISIS

COURSE DESCRIPTION

This intermediate course will explore the impact of crisis situations on families building on concepts from the introductory course(s). Topics include stress, changes in the family life cycle, grief and loss, and mental health disorders. An emphasis will be placed on services available to support families while developing foundational knowledge and skills.

STANDARDS AND INDICATORS:

HSE.HS.13.1 Analyze non-therapeutic helper careers which serve individuals, families, and communities.

HSE.HS.13.1.a Outline the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, volunteer helpers, peer helpers, and informal helpers).

HSE.HS.13.1.b Describe the role of each of the six types of helpers in the process of supporting families in crisis situations.

HSE.HS.13.2 Analyze factors that influence crisis in a family.

HSE.HS.13.2.a List characteristics of healthy and unhealthy families and their effect on society.

HSE.HS.13.2.b Compare and contrast a variety of diverse family structures.

HSE.HS.13.2.c Describe how families help meet the needs of individuals using Maslow's Hierarchy of Needs.

HSE.HS.13.2.d Explain the importance of healthy communication and conflict resolution in a family.

HSE.HS.13.2.e Compare and contrast financial, physical, social, emotional, cultural, and spiritual issues and the role of stress in families.

HSE.HS.13.2.f Define crisis and differentiate a crisis situation from a stressful situation.

HSE.HS.13.2.g Identity common crisis situations families face (e.g., mental illness, abuse, addiction, grief, suicide, job loss, homelessness).

FAMILIES IN CRISIS (cont.)

HSE.HS.13.3 Evaluate societal views of mental health and common mental health disorders.

HSE.HS.13.3.a Define stigma and explain its effects on those with mental illness.

HSE.HS.13.3.b Identify ways to minimize stigma surrounding mental illness and seeking help for mental health problems.

HSE.HS.13.3.c Identify and analyze common risk factors for developing mental disorders (genetic, environmental).

HSE.HS.13.3.d Analyze the process of diagnosing mental illness.

HSE.HS.13.3.e Explain the effects mental illness and suicide has on the family.

HSE.HS.13.3.f Assess the signs and symptoms of a potential suicidal individual and steps that should be taken to seek help.

HSE.HS.13.3.g Identify community resources to help families facing mental health crises.

HSE.HS.13.4 Evaluate the effects of abuse on a family.

HSE.HS.13.4.a Identify types of abuse, causes, and common signs and symptoms in each stage of the family life cycle.

HSE.HS.13.4.b Analyze the roles and their characteristics in an abuse situation (bystander, abuser, victim/survivor).

HSE.HS.13.4.c Identify mandatory reporting laws and processes in Nebraska and resources available to help families.

HSE.HS.13.4.d Explain Adverse Childhood Experiences (ACEs) and their potential effects.

HSE.HS.13.4.e Compare and contrast healthy and unhealthy relationships.

HSE.HS.13.4.f Explain the stages of the Cycle of Abuse considering the barriers surrounding generational abuse.

FAMILIES IN CRISIS (cont.)

HSE.HS.13.5 Evaluate the effects of addiction on the family unit.

HSE.HS.13.5.a	Define addiction and explore the risk factors associated with developing an addiction (genetic, environmental).
HSE.HS.13.5.b	Analyze the science of physical and psychological addiction and how they are connected.
HSE.HS.13.5.c	Assess community resources, treatment, and recovery methods of addiction.
HSE.HS.13.5.d	Explain the connection (comorbidity) between mental illness and addiction.
HSE.HS.13.5.e	Analyze the effects of multiple family members living with addiction at the same time.

HSE.HS.13.6 Analyze the process of grieving.

HSE.HS.13.6.a	Define grief and explain that grief can occur with a variety of losses (e.g., loss of a friendship or pet, moving, loss of experience).
HSE.HS.13.6.b	Compare and contrast a variety of theories of grief (Five Stages, Tonkin's Model, Four Tasks of Grieving, Six Rs, Dual Process Model, Reconstruction of Meaning).
HSE.HS.13.6.c	Analyze family relationships in the grieving process.
HSE.HS.13.6.d	Compare and contrast healthy and unhealthy coping mechanisms for dealing with grief.
HSE.HS.13.6.e	Identify community resources to help families facing grief.

HSE.HS.13.7 Analyze methods of overcoming crisis.

HSE.HS.13.7.a	Describe the qualities of a resilient individual.
HSE.HS.13.7.b	Define mindfulness and techniques used to be mindful in everyday life.
HSE.HS.13.7.c	Explain the importance of mindfulness and self-awareness in overcoming crisis.
HSE.HS.13.7.d	Explain the importance of self-care and list strategies for implementing self-care.
HSE.HS.13.7.e	Describe the importance of growth mindset in regards to neuroplasticity.
HSE.HS.13.7.f	Identify common mental distortions (filtering, overgeneralizing, catastrophizing, personalization).

LIFESPAN DEVELOPMENT

COURSE DESCRIPTION

This introductory course explores the physical, intellectual, emotional, and social development of individuals across the lifespan from conception to death. Topics covered are external impacts on development including family structure and practices, theories of development, social and technological forces, and resources available to individuals and their outcomes.

STANDARDS AND INDICATORS:

HSE.HS.30.1 Evaluate principles of growth and development from conception through infancy.

HSE.HS.30.1.a	Describe theories, current issues, and trends.
HSE.HS.30.1.b	Identify physical, intellectual, emotional, and social development milestones.
HSE.HS.30.1.c	Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.1.d	Explain brain structure and development for this stage of life.
HSE.HS.30.1.e	Describe services and supports needed when developmental milestones are not met.
HSE.HS.30.1.f	Analyze family system roles and dynamics and how they contribute to development.
HSE.HS.30.1.g	Describe skills needed to work and engage with individuals in this stage of development.

HSE.HS.30.2 Evaluate principles of growth and development from infancy through childhood.

HSE.HS.30.2.a	Describe theories, current issues, and trends.
HSE.HS.30.2.b	Identify physical, intellectual, emotional, and social development milestones.
HSE.HS.30.2.c	Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.2.d	Explain brain structure and development for this stage of life.
HSE.HS.30.2.e	Describe services and supports needed when developmental milestones are not met.
HSE.HS.30.2.f	Analyze family system roles and dynamics and how they contribute to development.
HSE.HS.30.2.g	Demonstrate skills needed to work and engage with individuals in this stage of development.

LIFESPAN DEVELOPMENT (cont.)

HSE.HS.30.3 Evaluate principles of growth and development from childhood through adolescence.

HSE.HS.30.3.a Describe theories, current issues, and trends.

HSE.HS.30.3.b Identify physical, intellectual, emotional, and social development milestones.

HSE.HS.30.3.c Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).

HSE.HS.30.3.d Explain brain structure and development for this stage of life.

HSE.HS.30.3.e Describe services and supports needed when developmental milestones are not met.

HSE.HS.30.3.f Analyze family system roles and dynamics and how they contribute to development.

HSE.HS.30.3.g Demonstrate skills needed to work and engage with individuals in this stage of development.

HSE.HS.30.4 Evaluate principles of growth and development from adolescence through early adulthood.

HSE.HS.30.4.a Describe theories, current issues, and trends.

HSE.HS.30.4.b Identify physical, intellectual, emotional, and social development milestones.

HSE.HS.30.4.c Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).

HSE.HS.30.4.d Explain brain structure and development for this stage of life.

HSE.HS.30.4.e Describe services and supports needed when developmental milestones are not met.

HSE.HS.30.4.f Analyze family system roles and dynamics and how they contribute to development.

HSE.HS.30.4.g Demonstrate skills needed to work and engage with individuals in this stage of development.

LIFESPAN DEVELOPMENT (cont.)

HSE.HS.30.5 Evaluate principles of growth and development from middle to late adulthood through the end of life.

HSE.HS.30.5a	Describe theories, current issues, and trends.
HSE.HS.30.5.b	Identify physical, intellectual, emotional, and social milestones.
HSE.HS.30.5.c	Explain conditions influencing well-being (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.5.d	Explain brain structure and development for this stage of life.
HSE.HS.30.5.e	Describe services and supports needed for well-being.
HSE.HS.30.5.f	Analyze family system roles and dynamics and how they contribute to the well-being of individuals.
HSE.HS.30.5.g	Describe skills needed to work and engage with individuals in this stage of development.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES

COURSE DESCRIPTION

This introductory course is intended to provide a basic overview of all areas within Family and Consumer Sciences. Basic knowledge and career skills that are applicable to personal growth and career development will be covered. Additional course topics include: leadership, communication, child development, mental health, nutrition and food preparation, clothing and interior design, and personal finance.

STANDARDS AND INDICATORS:

HSE.HS.27.1 Apply career-readiness skills and identify potential career opportunities.

HSE.HS.27.1.a	Summarize the history of Family and Consumer Sciences and the impact of the field on individuals, families, and communities to make connections to current career-ready skills.
HSE.HS.27.1.b	Identify personal traits and compare them with potential career opportunities.
HSE.HS.27.1.c	Investigate career opportunities, including but not limited to careers within Family and Consumer Sciences.

HSE.HS.27.2 Apply leadership in family, workplace, and community.

HSE.HS.27.2.a	Investigate goal setting and resource management.
HSE.HS.27.2.b	Explain leadership styles and the impact of each style on others.
HSE.HS.27.2.c	Demonstrate strategies that utilize the strengths and minimize the limitations of team members.
HSE.HS.27.2.d	Describe the decision-making process.
HSE.HS.27.2.e	Demonstrate leadership skills within the family, workplace, or community.
HSE.HS.27.2.f	Investigate opportunities available for a member of FCCLA and/or Educators Rising.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HE.27.3 Evaluate personal and work relationships.

HSE.HS.27.3.a Compare and contrast healthy and unhealthy personal and work relationships.

HSE.HS.27.3.b Evaluate personal traits and how they can be used to improve relationships.

HSE.HS.27.3.c Demonstrate effective communication using a variety of delivery methods that can improve personal and work relationships.

HSE.HS.27.3.d Demonstrate critical thinking and conflict resolution in personal and career settings.

HSE.HS.27.3.e Demonstrate inclusive teamwork in the family, workplace, or community.

HSE.HS.27.4 Assess the family unit during each stage of the lifespan.

HSE.HS.27.4.a Identify the stages of development across the lifespan.

HSE.HS.27.4.b Categorize milestones of development in the areas of physical, intellectual, emotional, and social across the lifespan.

HSE.HS.27.4.c Analyze family as the basic unit of society.

HSE.HS.27.4.d Describe the impact of conditions that could influence the well-being of individuals and families.

HSE.HS.27.5 Identify careers in counseling, mental health, and human behavior.

HSE.HS.27.5.a Identify the importance of self-care and self-awareness.

HSE.HS.27.5.b Summarize empathy.

HSE.HS.27.5.c Examine the influence of cultural and societal issues on mental and emotional health.

HSE.HS.27.5.d Connect the role of mental health and counseling to today's society

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HS.27.6 Differentiate skills for food preparation and maintaining nutrition and wellness.

HSE.HS.27.6.a Identify basic food safety and sanitation practices.

HSE.HS.27.6.b Demonstrate basic food preparation practices.

HSE.HS.27.6.c Create meal plans that utilize food availability and cost effectiveness.

HSE.HS.27.6.d Identify basic kitchen equipment and terminology.

HSE.HS.27.6.e Analyze effects of personal choices on nutrition and wellness.

HSE.HS.27.6.f Identify basic nutrients required for healthy living.

HSE.HS.27.7 Apply skills required for fashion construction, housing, and interior design.

HSE.HS.27.7.a Classify the elements and principles of design.

HSE.HS.27.7.b Describe the basic care of different textiles.

HSE.HS.27.7.c Compare and contrast design features in fashion and/or interior design.

HSE.HS.27.7.d Produce, alter, or repair fashion and apparel items.

HSE.HS.27.7.e Apply the principles and elements of design to design a room reflecting personal, family, or community style and needs.

HSE.HS.27.8 Explain consumerism and personal finance.

HSE.HS.27.8.a Identify factors that influence consumer choices.

HSE.HS.27.8.b Summarize the rights and responsibilities of consumers.

HSE.HS.27.8.c Outline the steps for creating a budget.

HSE.HS.27.8.d Describe procedures for using savings and checking accounts.

HSE.HS.27.8.e Compare the benefits and costs of credit.

CHILD DEVELOPMENT

COURSE DESCRIPTION

This intermediate course provides an overview of developmental stages in the prenatal period through 12 years of age building on concepts from the introductory course(s). Topics covered include how young children attain knowledge, behaviors, and skill and theories of child development to identify the effects of parenting practices, social, cultural, and linguistic diversity. The impact of quality child care and early childhood education on child growth and development will also be explored.

STANDARDS AND INDICATORS:

HSE.HS.5.1 Explain the basic principles of child development from conception to age 12.

HSE.HS.5.1.a Explain physical development milestones from conception to age 12.

HSE.HS.5.1.b Explain intellectual development milestones from conception to age 12.

HSE.HS.5.1.c Explain emotional development milestones from conception to age 12.

HSE.HS.5.1.d Explain social development milestones from conception to age 12.

HSE.HS.5.2 Evaluate child development theoretical perspectives and their applications.

HSE.HS.5.2.a Identify the various child development theorists and theories.

HSE.HS.5.2.b Evaluate developmentally appropriate child care skills from conception to age 12.

HSE.HS.5.2.c Identify parenting decisions and practices that impact healthy development from conception to age 12.

HSE.HS.5.3 Analyze family theoretical perspectives and their impact on child growth and development.

HSE.HS.5.3.a Compare and contrast theorists and theories related to family traits and child growth and development.

HSE.HS.5.3.b Classify different parenting types and styles.

HSE.HS.5.3.c Compare and contrast the different parenting styles.

HSE.HS.5.3.d Explain the impact parenting styles have on the development of young children.

CHILD DEVELOPMENT (cont.)

HSE.HS.5.4 Analyze the theoretical perspectives of social, cultural, and linguistic diversity traits and their impact on child growth and development.

HSE.HS.5.4.a Compare and contrast theorists and theories related to social, cultural, and linguistic diversity guiding childhood behaviors.

HSE.HS.5.4.b Recognize and classify different social, cultural, and linguistic diversity traits of children.

HSE.HS.5.4.c Compare and contrast the impact of the multiple influences that affect the social, cultural, and linguistic diversity traits of young children.

HSE.HS.5.4.d Explain the importance of early childhood education.

HSE.HS.5.5 Describe an understanding of career opportunities and early childhood community resources for supporting families in young children's development.

HSE.HS.5.5.a Describe career opportunities in the field of early childhood.

HSE.HS.5.5.b Identify college certificates and degree options in the field of early childhood.

HSE.HS.5.5.c Identify community resources available for supporting families with young children and their development.

HSE.HS.5.5.d Identify the purpose of the National Association for the Education of Young Children (NAEYC), Nebraska Early Childhood Profession Record System (NECPRS), and other early childhood education resources.

PARENTS AND FAMILIES

COURSE DESCRIPTION

This intermediate course will evaluate the effects of parenting roles and responsibilities building on concepts from the introductory course. Topics covered will include influences on parenting, decisions to parent, support services for parents, parenting theories, and family adjustment to parenthood. Emphasis will be placed on positive actions to support the physical, emotional, intellectual, and social development of family members.

STANDARDS AND INDICATORS:

HSE.HS.33.1 Analyze roles and responsibilities of parenting.

- HSE.HS.33.1.a Identify parenting roles across the lifespan.
- HSE.HS.33.1.b Differentiate the expectations and responsibilities of parenting.
- HSE.HS.33.1.c Explain the decision to parent, including family planning, infertility and unplanned parenthood.
- HSE.HS.33.1.d Summarize the impact of the decision to parent on the roles and responsibilities of parenting.
- HSE.HS.33.1.e Summarize current laws and policies related to parenting.
- HSE.HS.33.1.f Analyze consequences of parenting practices to the individual, family, and society.
- HSE.HS.33.1.g Differentiate societal and cultural influences on parenting roles and responsibilities across the lifespan.

HSE.HS.33.2 Assess the family unit and each individual's ability to manage work, family, and community commitments.

- HSE.HS.33.2.a Compare and contrast different types of families.
- HSE.HS.33.2.b Analyze alternatives to biological parenthood and the impacts on the family unit.
- HSE.HS.33.2.c Evaluate and prioritize family, work, and community obligations.
- HSE.HS.33.2.d Assess the importance of teamwork and leadership skills in the family, workplace and community.
- HSE.HS.33.2.e Identify resources available to families that increase positive outcomes for children.

PARENTS AND FAMILIES (cont.)

HSE.HS.33.3 Evaluate parenting factors and conditions that impact normal growth and development.

HSE.HS.33.3.a	Describe the effect of heredity and environment on child growth and development (e.g., nature, nurture).
HSE.HS.33.3.b	Analyze the effects of gender, ethnicity, and culture on a child's development.
HSE.HS.33.3.c	Compare and contrast parenting styles to examine the impact on development.
HSE.HS.33.3.d	Identify educational, community, and governmental resources available to prevent, address and improve developmental delays.

HSE.HS.33.4 Differentiate between effective and ineffective parenting and caregiver practices.

HSE.HS.33.4.a	Identify techniques for positive collaborative relationships with children.
HSE.HS.33.4.b	Summarize how nurturing and attachment create optimal parenting practices.
HSE.HS.33.4.c	Analyze discipline practices that follow emerging research on human growth and development.
HSE.HS.33.4.d	Identify forms of child abuse and neglect.
HSE.HS.33.4.e	Analyze the effects of abuse and neglect on children and families and determine methods for prevention.
HSE.HS.33.4.f	Describe strategies for overcoming negative and harmful parenting practices.

PARENTS AND FAMILIES (cont.)

HSE.HS.33.5 Evaluate services for individuals and families in a variety of circumstances.

HSE.HS.33.5.a Identify resources available to individuals and families with specific needs.

HSE.HS.33.5.b Describe strategies that help parents make informed choices, access resources, follow through on responsibilities, and take appropriate risks.

HSE.HS.33.5.c Summarize the importance of friends, family, and community relationships for an individual.

HSE.HS.33.5.d Identify policies and programs that influence health care, nutrition, education, child protection, and poverty.

HSE.HS.33.5.e Analyze criteria for selecting care and services for children.

HSE.HS.33.5.f Describe how a family's cultural identity, values, beliefs, and other factors may impact their decisions about accessing support services.

HSE.HS.33.6 Outline children's self-regulation of health and wellness choices.

HSE.HS.33.6.a Plan healthy meals and snacks.

HSE.HS.33.6.b Apply strategies to teach children health, safety, and hygiene habits.

HSE.HS.33.6.c Critique behaviors (e.g., physical activity, nutrition choices) that develop positive lifelong wellness for children.

FAMILIES IN CRISIS

COURSE DESCRIPTION

This intermediate course will explore the impact of crisis situations on families building on concepts from the introductory course(s). Topics include stress, changes in the family life cycle, grief and loss, and mental health disorders. An emphasis will be placed on services available to support families while developing foundational knowledge and skills.

STANDARDS AND INDICATORS:

HSE.HS.13.1 Analyze non-therapeutic helper careers which serve individuals, families, and communities.

HSE.HS.13.1.a Outline the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, volunteer helpers, peer helpers, and informal helpers).

HSE.HS.13.1.b Describe the role of each of the six types of helpers in the process of supporting families in crisis situations.

HSE.HS.13.2 Analyze factors that influence crisis in a family.

HSE.HS.13.2.a List characteristics of healthy and unhealthy families and their effect on society.

HSE.HS.13.2.b Compare and contrast a variety of diverse family structures.

HSE.HS.13.2.c Describe how families help meet the needs of individuals using Maslow's Hierarchy of Needs.

HSE.HS.13.2.d Explain the importance of healthy communication and conflict resolution in a family.

HSE.HS.13.2.e Compare and contrast financial, physical, social, emotional, cultural, and spiritual issues and the role of stress in families.

HSE.HS.13.2.f Define crisis and differentiate a crisis situation from a stressful situation.

HSE.HS.13.2.g Identity common crisis situations families face (e.g., mental illness, abuse, addiction, grief, suicide, job loss, homelessness).

FAMILIES IN CRISIS (cont.)

HSE.HS.13.3 Evaluate societal views of mental health and common mental health disorders.

HSE.HS.13.3.a Define stigma and explain its effects on those with mental illness.

HSE.HS.13.3.b Identify ways to minimize stigma surrounding mental illness and seeking help for mental health problems.

HSE.HS.13.3.c Identify and analyze common risk factors for developing mental disorders (genetic, environmental).

HSE.HS.13.3.d Analyze the process of diagnosing mental illness.

HSE.HS.13.3.e Explain the effects mental illness and suicide has on the family.

HSE.HS.13.3.f Assess the signs and symptoms of a potential suicidal individual and steps that should be taken to seek help.

HSE.HS.13.3.g Identify community resources to help families facing mental health crises.

HSE.HS.13.4 Evaluate the effects of abuse on a family.

HSE.HS.13.4.a Identify types of abuse, causes, and common signs and symptoms in each stage of the family life cycle.

HSE.HS.13.4.b Analyze the roles and their characteristics in an abuse situation (bystander, abuser, victim/survivor).

HSE.HS.13.4.c Identify mandatory reporting laws and processes in Nebraska and resources available to help families.

HSE.HS.13.4.d Explain Adverse Childhood Experiences (ACEs) and their potential effects.

HSE.HS.13.4.e Compare and contrast healthy and unhealthy relationships.

HSE.HS.13.4.f Explain the stages of the Cycle of Abuse considering the barriers surrounding generational abuse.

FAMILIES IN CRISIS (cont.)

HSE.HS.13.5 Evaluate the effects of addiction on the family unit.

HSE.HS.13.5.a Define addiction and explore the risk factors associated with developing an addiction (genetic, environmental).

HSE.HS.13.5.b Analyze the science of physical and psychological addiction and how they are connected.

HSE.HS.13.5.c Assess community resources, treatment, and recovery methods of addiction.

HSE.HS.13.5.d Explain the connection (comorbidity) between mental illness and addiction.

HSE.HS.13.5.e Analyze the effects of multiple family members living with addiction at the same time.

HSE.HS.13.6 Analyze the process of grieving.

HSE.HS.13.6.a Define grief and explain that grief can occur with a variety of losses (e.g., loss of a friendship or pet, moving, loss of experience).

HSE.HS.13.6.b Compare and contrast a variety of theories of grief (Five Stages, Tonkin's Model, Four Tasks of Grieving, Six Rs, Dual Process Model, Reconstruction of Meaning).

HSE.HS.13.6.c Analyze family relationships in the grieving process.

HSE.HS.13.6.d Compare and contrast healthy and unhealthy coping mechanisms for dealing with grief.

HSE.HS.13.6.e Identify community resources to help families facing grief.

HSE.HS.13.7 Analyze methods of overcoming crisis.

HSE.HS.13.7.a Describe the qualities of a resilient individual.

HSE.HS.13.7.b Define mindfulness and techniques used to be mindful in everyday life.

HSE.HS.13.7.c Explain the importance of mindfulness and self-awareness in overcoming crisis.

HSE.HS.13.7.d Explain the importance of self-care and list strategies for implementing self-care.

HSE.HS.13.7.e Describe the importance of growth mindset in regards to neuroplasticity.

HSE.HS.13.7.f Identify common mental distortions (filtering, overgeneralizing, catastrophizing, personalization).

INTERPERSONAL RELATIONSHIPS

COURSE DESCRIPTION

This capstone course focuses on the effect of interpersonal relationships building on concepts from the introductory and intermediate courses. The course includes concepts such as effective communication, establishing and maintaining relationships, diverse family systems, characteristics of personal development, and the impact of relationships on personal and career success. The impact of relationships on the well-being of individuals, families, work, and society will also be explored.

STANDARDS AND INDICATORS:

HSE.HS.24.1 Analyze personal needs and characteristics and their effects on interpersonal relationships.

HSE.HS.24.1.a Examine the effects of personal characteristics and life events on relationships.

HSE.HS.24.1.b Describe the effects of self-esteem and self-image on relationships.

HSE.HS.24.1.c Describe the effects of lifespan events and conditions on relationships.

HSE.HS.24.1.d Explain the effects of personal values and behaviors on interpersonal relationships.

HSE.HS.24.2 Analyze the effects of family as a system on individuals and society.

HSE.HS.24.2.a Describe the function of the family as the basic unit of society.

HSE.HS.24.2.b Examine the role of family in teaching culture and traditions across the lifespan.

HSE.HS.24.2.c Summarize the family's role in developing independence, interdependence, and commitment of family members.

HSE.HS.24.2.d Describe the effects of various stages of the family life cycle on interpersonal relationships.

INTERPERSONAL RELATIONSHIPS (cont.)

HSE.HE.24.3 Evaluate the functions and expectations of various types of interpersonal relationships.

HSE.HS.24.3.a	Categorize the various types of interpersonal relationships.
HSE.HS.24.3.b	Identify the characteristics of healthy and unhealthy relationships.
HSE.HS.24.3.c	Describe processes for building, maintaining, and ending interpersonal relationships.
HSE.HS.24.3.d	Identify physical, intellectual, emotional, and social characteristics of healthy and unhealthy relationships and behaviors including limits, boundaries, and refusal skills.
HSE.HS.24.3.e	Analyze processes for handling unhealthy relationships.
HSE.HS.24.3.f	Relate personal values, rights, and responsibilities in relationships to overall health and decision making.

HSE.HS.24.4 Evaluate communication skills that contribute to healthy relationships.

HSE.HS.24.4.a	Compare communication styles and their effects on relationships.
HSE.HS.24.4.b	Analyze verbal and nonverbal behaviors and attitudes that contribute to effective communication.
HSE.HS.24.4.c	Demonstrate effective listening and feedback techniques.
HSE.HS.24.4.d	Analyze strategies to overcome communication barriers in family, community, and work settings.
HSE.HS.24.4.e	Apply ethical principles of communication in family, community, and work settings.
HSE.HS.24.4.f	Assess the effects of communication via technology in family, work, and community settings.

INTERPERSONAL RELATIONSHIPS (cont.)

HSE.HS.24.5 Outline principles that guide behavior in interpersonal relationships.

HSE.HS.24.5.a	Explain the principles of decision making and problem solving in reducing and managing conflict in interpersonal relationships.
HSE.HS.24.5.b	Identify nonviolent strategies that address conflict and model positive leadership. (e.g., self awareness, self-regulation, motivation, empathy and social skills).
HSE.HS.24.5.c	Identify stress management strategies for family, work, and community settings.

FAMILY AND COMMUNITY ADVOCACY

COURSE DESCRIPTION

This capstone course explores advocacy as it relates to individuals, families, and communities building on concepts from the introductory and intermediate courses. Topics covered include leadership within advocacy, careers related to advocacy, the role of community support in advocacy, importance of resiliency, and civic responsibilities. The importance of service-learning will also be addressed.

STANDARDS AND INDICATORS:

HSE.HS.14.1 Analyze the various dimensions of being an advocate for individuals, families, and communities.

- HSE.HS.14.1.a Define what it means to be an advocate.
- HSE.HS.14.1.b Explain the importance of advocating for others.
- HSE.HS.14.1.c Identify situations where advocates would be involved.
- HSE.HS.14.1.d Discuss the connection between crisis and advocacy.
- HSE.HS.14.1.e Explain the history of advocacy and events or periods in time that required advocacy for individuals, families, and communities.
- HSE.HS.14.1.f Explain the impact of advocacy on individuals, families, communities, and society.

HSE.HS.14.2 Assess the leadership role of the advocate.

- HSE.HS.14.2.a Explain how an advocate is a leader.
- HSE.HS.14.2.b Identify strong intrapersonal and interpersonal relationship skills (conflict resolution, teamwork, attentive listening skills).
- HSE.HS.14.2.c Analyze how an individual's view of the world is impacted by their level of self-awareness as it relates to individual beliefs and values.
- HSE.HS.14.2.d Analyze the importance of ethical behavior as a leader and advocate.

FAMILY AND COMMUNITY ADVOCACY(cont.)

HSE.HS.14.3 Identify careers related to serving families and communities.

HSE.HS.14.3.a Describe specific roles or careers that have a direct connection to advocating for families (e.g., child-life advocate, family advocate).

HSE.HS.14.3.b Assess the relationship between community demographics and advocacy needs.

HSE.HS.14.3.c Explain the role of each of the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, peer helpers, volunteer helpers, and informal helpers) in advocacy.

HSE.HS.14.4 Outline specific community outreach programs, resources, and connections as they relate to families.

HSE.HS.14.4.a Explain the role school organizations can play in advocating for schools and communities.

HSE.HS.14.4.b Describe local family and community services (e.g., organizations, government resources).

HSE.HS.14.4.c Locate local support resources for specific populations.

HSE.HS.14.5 Analyze the importance of individuals, families, and communities participating in their civic duties as local advocates.

HSE.HS.14.5.a Define civic duty.

HSE.HS.14.5.b Explain the role of individuals, families, and communities in advocacy as it relates to living in a democratic society.

HSE.HS.14.5.c Identify how individuals, families, and communities can work towards fulfilling their civic responsibilities.

HSE.HS.14.5.d Describe the process of advocating for an issue.

HSE.HS.14.5.e Explain the role elected officials could play in advocacy.

HSE.HS.14.5.f Describe what advocacy looks like at the local, state, and national levels.

FAMILY AND COMMUNITY ADVOCACY(cont.)

HSE.HS.14.6 Analyze the importance of resilience in families and communities.

HSE.HS.14.6.a Define resilience.

HSE.HS.14.6.b Describe what a resilient individual, family, and community look like and the correlation between them.

HSE.HS.14.6.c Analyze the importance of individuals and families being advocates for themselves and its effects on a community.

HSE.HS.14.7 Analyze service-learning and its connection to civic responsibility.

HSE.HS.14.7.a Identify ways to serve individuals, families, and communities.

HSE.HS.14.7.b Apply knowledge of advocacy and leadership to benefit individuals, families, and communities.

HSE.HS.14.7.c Identify opportunities for personal growth through serving individuals, families, and communities.

HSE.HS.14.7.d Explain how service-learning is a key to fulfilling civic responsibilities.

LIFE AND CAREER READINESS

COURSE DESCRIPTION

This course is designed to prepare students for responsibilities in a home, family, and work environment. Personal and career development will be expanded. Topics covered include adult roles and responsibilities, goal setting, decision making, communication, leadership, personal finance, consumer skills, and personal wellness.

STANDARDS AND INDICATORS:

HSE.HS.29.1 Integrate the characteristics of personal development.

HSE.HS.29.1.a	Identify adult roles and responsibilities of each.
HSE.HS.29.1.b	Describe theories of development related to the adolescent and adult life stages (e.g., Havighurst, Bronfenbrenner, Erikson).
HSE.HS.29.1.c	Summarize research on values, beliefs, character and personality traits, and behavior change models.
HSE.HS.29.1.d	Demonstrate goal setting skills to enhance lifestyle choices and behaviors.
HSE.HS.29.1.e	Analyze decision-making models.

HSE.HS.29.2 Apply career readiness skills to develop a personal career plan.

HSE.HS.29.2.a	Demonstrate effective and appropriate communication.
HSE.HS.29.2.b	Implement creative problem solving and critical thinking strategies.
HSE.HS.29.2.c	Model teamwork and leadership skills.
HSE.HS.29.2.d	Demonstrate effective use of technology as a responsible digital citizen.
HSE.HS.29.2.e	Identify personal qualities and qualifications needed for employment.
HSE.HS.29.2.f	Identify potential careers, including but not limited to Family and Consumer Sciences careers.
HSE.HS.29.2.g	Demonstrate the ability to effectively seek employment (e.g., completing applications, creating a resume, interviewing).

LIFE AND CAREER READINESS (cont.)

HSE.HS.29.3 Explain the process of calculating income and taxes.

HSE.HS.29.3.a Interpret a pay stub to calculate gross and net pay and identify benefits.

HSE.HS.29.3.b Define payroll withholdings and identify why deductions are made.

HSE.HS.29.3.c Describe information needed and required forms relevant to the completion of state and federal income tax forms (e.g., W-4, W-2, 1040)

HSE.HS.29.3.d Identify the purpose of taxes and differentiate between the different types of taxes (e.g., sales tax, property tax, income tax).

HSE.HS.29.4 Apply money management skills and strategies.

HSE.HS.29.4.a Compare and contrast the various types of financial institutions and the services they provide.

HSE.HS.29.4.b Compare and contrast a statement of financial position, income and expense statement, and spending plan.

HSE.HS.29.4.c Develop a personal spending plan/budget.

HSE.HS.29.4.d Compare and contrast different forms of financial exchange (e.g., cash, credit, debit, electronic funds transfer, emerging payment forms)

HSE.HS.29.5 Evaluate savings and investment strategies based on individual preferences and circumstances to achieve financial goals.

HSE.HS.29.5.a Identify the value of saving money and strategies to save money.

HSE.HS.29.5.b Compare the characteristics of savings tools (e.g., savings account, certificates of deposit, savings bonds) and how they relate to financial goals.

HSE.HS.29.5.c Distinguish between common types of investments.

HSE.HS.29.5.d Compare and contrast saving and investing strategies that consider risk, return, and building wealth.

LIFE AND CAREER READINESS (cont.)

HSE.HS.29.6 Evaluate factors that affect the choice of credit, the cost of credit, maintaining credit, and the legal aspects of using credit.

HSE.HS.29.6.a Evaluate the opportunity cost for each financial decision involving credit (e.g., credit cards, auto loans, student loans).

HSE.HS.29.6.b Describe the process to obtain various forms of credit.

HSE.HS.29.6.c Explain the importance of credit ratings and credit scores and the effect on an individual's credit report, cost of credit, and future use of credit.

HSE.HS.29.6.d Summarize the rights and responsibilities of consumers according to credit legislation (e.g., truth-in-lending, fair credit reporting, equal credit opportunity, fair debt collection).

HSE.HS.29.6.e Explain the risks associated with fraud and fraud protection guidelines.

HSE.HS.29.6.f Apply the planned buying process to housing and transportation decisions (buying, renting, leasing).

HSE.HS.29.7 Analyze appropriate and cost-effective risk management strategies.

HSE.HS.29.7.a Identify the terms, concepts, and practices instrumental to varied forms of insurance (e.g., deductible, premium, peril, risk).

HSE.HS.29.7.b Identify the type of insurance associated with different types of risk (e.g., automobile, personal and professional liability, property, health, life, long-term care, disability).

HSE.HS.29.7.c Compare and contrast insurance policies based on individual preferences and circumstances.

HSE.HS.29.7.d Compare sources of insurance coverage, including employee benefit plans.

LIFE AND CAREER READINESS (cont.)

HSE.HS.29.8 Apply various life ready skills that are needed for adulthood.

HSE.HS.29.8.a Identify consumer skills for providing and maintaining clothing, transportation, housing, and recreation needs of individuals and their families.

HSE.HS.29.8.b Demonstrate personal and family resource decision making to meet personal and family goals across the lifespan.

HSE.HS.29.8.c Compare and contrast potential impact of career path decisions on balancing work and family responsibilities.

HSE.HS.29.8.d Identify solutions to real-world problems related to career/life goal setting and balance (e.g., meal planning, family budgeting, time management).

HSE.HS.29.8.e Summarize the aspects of wellness (physical, intellectual, emotional, social, spiritual, financial, environmental) and the impact on personal development.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES

COURSE DESCRIPTION

This introductory course is intended to provide a basic overview of all areas within Family and Consumer Sciences. Basic knowledge and career skills that are applicable to personal growth and career development will be covered. Additional course topics include: leadership, communication, child development, mental health, nutrition and food preparation, clothing and interior design, and personal finance.

STANDARDS AND INDICATORS:

HSE.HS.27.1 Apply career-readiness skills and identify potential career opportunities.

HSE.HS.27.1.a	Summarize the history of Family and Consumer Sciences and the impact of the field on individuals, families, and communities to make connections to current career-ready skills.
HSE.HS.27.1.b	Identify personal traits and compare them with potential career opportunities.
HSE.HS.27.1.c	Investigate career opportunities, including but not limited to careers within Family and Consumer Sciences.

HSE.HS.27.2 Apply leadership in family, workplace, and community.

HSE.HS.27.2.a	Investigate goal setting and resource management.
HSE.HS.27.2.b	Explain leadership styles and the impact of each style on others.
HSE.HS.27.2.c	Demonstrate strategies that utilize the strengths and minimize the limitations of team members.
HSE.HS.27.2.d	Describe the decision-making process.
HSE.HS.27.2.e	Demonstrate leadership skills within the family, workplace, or community.
HSE.HS.27.2.f	Investigate opportunities available for a member of FCCLA and/or Educators Rising.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HE.27.3 Evaluate personal and work relationships.

HSE.HS.27.3.a Compare and contrast healthy and unhealthy personal and work relationships.

HSE.HS.27.3.b Evaluate personal traits and how they can be used to improve relationships.

HSE.HS.27.3.c Demonstrate effective communication using a variety of delivery methods that can improve personal and work relationships.

HSE.HS.27.3.d Demonstrate critical thinking and conflict resolution in personal and career settings.

HSE.HS.27.3.e Demonstrate inclusive teamwork in the family, workplace, or community.

HSE.HS.27.4 Assess the family unit during each stage of the lifespan.

HSE.HS.27.4.a Identify the stages of development across the lifespan.

HSE.HS.27.4.b Categorize milestones of development in the areas of physical, intellectual, emotional, and social across the lifespan.

HSE.HS.27.4.c Analyze family as the basic unit of society.

HSE.HS.27.4.d Describe the impact of conditions that could influence the well-being of individuals and families.

HSE.HS.27.5 Identify careers in counseling, mental health, and human behavior.

HSE.HS.27.5.a Identify the importance of self-care and self-awareness.

HSE.HS.27.5.b Summarize empathy.

HSE.HS.27.5.c Examine the influence of cultural and societal issues on mental and emotional health.

HSE.HS.27.5.d Connect the role of mental health and counseling to today's society

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HS.27.6 Differentiate skills for food preparation and maintaining nutrition and wellness.

HSE.HS.27.6.a Identify basic food safety and sanitation practices.

HSE.HS.27.6.b Demonstrate basic food preparation practices.

HSE.HS.27.6.c Create meal plans that utilize food availability and cost effectiveness.

HSE.HS.27.6.d Identify basic kitchen equipment and terminology.

HSE.HS.27.6.e Analyze effects of personal choices on nutrition and wellness.

HSE.HS.27.6.f Identify basic nutrients required for healthy living.

HSE.HS.27.7 Apply skills required for fashion construction, housing, and interior design.

HSE.HS.27.7.a Classify the elements and principles of design.

HSE.HS.27.7.b Describe the basic care of different textiles.

HSE.HS.27.7.c Compare and contrast design features in fashion and/or interior design.

HSE.HS.27.7.d Produce, alter, or repair fashion and apparel items.

HSE.HS.27.7.e Apply the principles and elements of design to design a room reflecting personal, family, or community style and needs.

HSE.HS.27.8 Explain consumerism and personal finance.

HSE.HS.27.8.a Identify factors that influence consumer choices.

HSE.HS.27.8.b Summarize the rights and responsibilities of consumers.

HSE.HS.27.8.c Outline the steps for creating a budget.

HSE.HS.27.8.d Describe procedures for using savings and checking accounts.

HSE.HS.27.8.e Compare the benefits and costs of credit.

CAREERS IN MENTAL HEALTH

COURSE DESCRIPTION

This introductory course explores a variety of careers in the counseling and mental health field building on concepts from Introduction to Family & Consumer Sciences. Topics covered include personal qualities, skills, and educational requirements needed to enter this career field. The importance of ethical behavior required by mental health professionals will also be addressed.

STANDARDS AND INDICATORS:

HSE.HS.4.1 Analyze non-therapeutic helper careers where counseling practices are applied.

HS.HS.4.1.a	Describe the role and importance of helpers in society.
HS.HS.4.1.b	Identify the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, volunteer helpers, peer helpers, and informal helpers).
HS.HS.4.1.c	Explain how helping requires balancing both intellectual and emotional competence.

HSE.HS.4.2 Summarize professional character qualities required of a mental health professional.

HSE.HS.4.2.a	Explain the importance of being a lifelong learner within the mental health career field.
HSE.HS.4.2.b	Identify the importance of cultural literacy and equity as it applies to mental health services.
HSE.HS.4.2.c	Explain personal characteristics necessary to excel at providing mental health services.

CAREERS IN MENTAL HEALTH (cont.)

HSE.HS.4.3 Analyze American views of mental health throughout history up until present times, and the impact these views have had on individual or family health and wellness.

HSE.HS.4.3.a Describe the historical development of the mental health field.

HSE.HS.4.3.b Explain the role of mental health in society (e.g., school, local, state, national).

HSE.HS.4.3.c Compare and contrast mental health and behavioral health.

HSE.HS.4.3.d Explain how the discovery of Adverse Childhood Experiences (ACEs) has impacted views regarding the importance of mental health topics.

HSE.HS.4.3.e Compare and contrast mental health and mental illness.

HSE.HS.4.3.f Analyze current mental health issues and trends and how they impact society.

HSE.HS.4.4 Distinguish between careers in the mental health field.

HSE.HS.4.4.a Identify employment trends within the mental health career field.

HSE.HS.4.4.b Describe the role mental health professionals have in society.

HSE.HS.4.4.c Compare and contrast the roles of a variety of mental health professionals (e.g., LMHPs, non-clinical social workers, educational counselors, school psychologists, research psychologists, clinical psychologists, psychiatrists).

HSE.HS.4.4.d Compare and contrast training and education requirements for various careers in the mental health field.

HSE.HS.4.5 Identify the process for becoming a certified mental health professional.

HSE.HS.4.5.a Explain the process and requirements for education and licensure of mental health professionals in Nebraska.

HSE.HS.4.5.b Identify procedures and fees associated with professional licensing of mental health professionals in the State of Nebraska.

HSE.HS.4.5.c Identify colleges and other post-secondary options for students interested in pursuing a career in the mental health field.

CAREERS IN MENTAL HEALTH (cont.)

HSE.HS.4.6 Appraise the importance of ethical behavior within the mental health professions.

HSE.HS.4.6.a Identify the ethical obligations of those working in the mental health career field.

HSE.HS.4.6.b Outline client rights and responsibilities in the therapeutic process.

HSE.HS.4.6.c Describe the consequences of violating codes of ethics for mental health professionals.

HSE.HS.4.6.d Analyze the penalties for violations by mental health professionals as it pertains to confidentiality and HIPAA.

HSE.HS.4.6.e Examine the importance of ethical behavior when conducting psychological research on human subjects, including the Belmont Report and the role of Institutional Review Boards.

HSE.HS.4.6.f Analyze the basic principles of ethical behavior (e.g., beneficence, nonmaleficence, justice, autonomy, and fidelity).

HSE.HS.4.7 Analyze the importance of mental health professionals taking care of their own mental health.

HSE.HS.4.7.a Explain the essential need for mental health professionals to prioritize their own mental health.

HSE.HS.4.7.b Describe optimal mental health and well-being.

HSE.HS.4.7.c Implement strategies to practice self-care and develop personal mindfulness awareness plans.

HSE.HS.4.7.d Summarize how personal values and experiences influence one's usage of mental and behavioral health services.

HSE.HS.4.7.e Identify basic intervention techniques to improve one's mental health.

FAMILIES IN CRISIS

COURSE DESCRIPTION

This intermediate course will explore the impact of crisis situations on families building on concepts from the introductory course(s). Topics include stress, changes in the family life cycle, grief and loss, and mental health disorders. An emphasis will be placed on services available to support families while developing foundational knowledge and skills.

STANDARDS AND INDICATORS:

HSE.HS.13.1 Analyze non-therapeutic helper careers which serve individuals, families, and communities.

HSE.HS.13.1.a Outline the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, volunteer helpers, peer helpers, and informal helpers).

HSE.HS.13.1.b Describe the role of each of the six types of helpers in the process of supporting families in crisis situations.

HSE.HS.13.2 Analyze factors that influence crisis in a family.

HSE.HS.13.2.a List characteristics of healthy and unhealthy families and their effect on society.

HSE.HS.13.2.b Compare and contrast a variety of diverse family structures.

HSE.HS.13.2.c Describe how families help meet the needs of individuals using Maslow's Hierarchy of Needs.

HSE.HS.13.2.d Explain the importance of healthy communication and conflict resolution in a family.

HSE.HS.13.2.e Compare and contrast financial, physical, social, emotional, cultural, and spiritual issues and the role of stress in families.

HSE.HS.13.2.f Define crisis and differentiate a crisis situation from a stressful situation.

HSE.HS.13.2.g Identity common crisis situations families face (e.g., mental illness, abuse, addiction, grief, suicide, job loss, homelessness).

FAMILIES IN CRISIS (cont.)

HSE.HS.13.3 Evaluate societal views of mental health and common mental health disorders.

HSE.HS.13.3.a Define stigma and explain its effects on those with mental illness.

HSE.HS.13.3.b Identify ways to minimize stigma surrounding mental illness and seeking help for mental health problems.

HSE.HS.13.3.c Identify and analyze common risk factors for developing mental disorders (genetic, environmental).

HSE.HS.13.3.d Analyze the process of diagnosing mental illness.

HSE.HS.13.3.e Explain the effects mental illness and suicide has on the family.

HSE.HS.13.3.f Assess the signs and symptoms of a potential suicidal individual and steps that should be taken to seek help.

HSE.HS.13.3.g Identify community resources to help families facing mental health crises.

HSE.HS.13.4 Evaluate the effects of abuse on a family.

HSE.HS.13.4.a Identify types of abuse, causes, and common signs and symptoms in each stage of the family life cycle.

HSE.HS.13.4.b Analyze the roles and their characteristics in an abuse situation (bystander, abuser, victim/survivor).

HSE.HS.13.4.c Identify mandatory reporting laws and processes in Nebraska and resources available to help families.

HSE.HS.13.4.d Explain Adverse Childhood Experiences (ACEs) and their potential effects.

HSE.HS.13.4.e Compare and contrast healthy and unhealthy relationships.

HSE.HS.13.4.f Explain the stages of the Cycle of Abuse considering the barriers surrounding generational abuse.

FAMILIES IN CRISIS (cont.)

HSE.HS.13.5 Evaluate the effects of addiction on the family unit.

HSE.HS.13.5.a Define addiction and explore the risk factors associated with developing an addiction (genetic, environmental).

HSE.HS.13.5.b Analyze the science of physical and psychological addiction and how they are connected.

HSE.HS.13.5.c Assess community resources, treatment, and recovery methods of addiction.

HSE.HS.13.5.d Explain the connection (comorbidity) between mental illness and addiction.

HSE.HS.13.5.e Analyze the effects of multiple family members living with addiction at the same time.

HSE.HS.13.6 Analyze the process of grieving.

HSE.HS.13.6.a Define grief and explain that grief can occur with a variety of losses (e.g., loss of a friendship or pet, moving, loss of experience).

HSE.HS.13.6.b Compare and contrast a variety of theories of grief (Five Stages, Tonkin's Model, Four Tasks of Grieving, Six Rs, Dual Process Model, Reconstruction of Meaning).

HSE.HS.13.6.c Analyze family relationships in the grieving process.

HSE.HS.13.6.d Compare and contrast healthy and unhealthy coping mechanisms for dealing with grief.

HSE.HS.13.6.e Identify community resources to help families facing grief.

HSE.HS.13.7 Analyze methods of overcoming crisis.

HSE.HS.13.7.a Describe the qualities of a resilient individual.

HSE.HS.13.7.b Define mindfulness and techniques used to be mindful in everyday life.

HSE.HS.13.7.c Explain the importance of mindfulness and self-awareness in overcoming crisis.

HSE.HS.13.7.d Explain the importance of self-care and list strategies for implementing self-care.

HSE.HS.13.7.e Describe the importance of growth mindset in regards to neuroplasticity.

HSE.HS.13.7.f Identify common mental distortions (filtering, overgeneralizing, catastrophizing, personalization).

FAMILY AND COMMUNITY ADVOCACY

COURSE DESCRIPTION

This capstone course explores advocacy as it relates to individuals, families, and communities building on concepts from the introductory and intermediate courses. Topics covered include leadership within advocacy, careers related to advocacy, the role of community support in advocacy, importance of resiliency, and civic responsibilities. The importance of service-learning will also be addressed.

STANDARDS AND INDICATORS:

HSE.HS.14.1 Analyze the various dimensions of being an advocate for individuals, families, and communities.

HSE.HS.14.1.a Define what it means to be an advocate.

HSE.HS.14.1.b Explain the importance of advocating for others.

HSE.HS.14.1.c Identify situations where advocates would be involved.

HSE.HS.14.1.d Discuss the connection between crisis and advocacy.

HSE.HS.14.1.e Explain the history of advocacy and events or periods in time that required advocacy for individuals, families, and communities.

HSE.HS.14.1.f Explain the impact of advocacy on individuals, families, communities, and society.

HSE.HS.14.2 Assess the leadership role of the advocate.

HSE.HS.14.2.a Explain how an advocate is a leader.

HSE.HS.14.2.b Identify strong intrapersonal and interpersonal relationship skills (conflict resolution, teamwork, attentive listening skills).

HSE.HS.14.2.c Analyze how an individual's view of the world is impacted by their level of self-awareness as it relates to individual beliefs and values.

HSE.HS.14.2.d Analyze the importance of ethical behavior as a leader and advocate.

FAMILY AND COMMUNITY ADVOCACY(cont.)

HSE.HS.14.3 Identify careers related to serving families and communities.

HSE.HS.14.3.a Describe specific roles or careers that have a direct connection to advocating for families (e.g., child-life advocate, family advocate).

HSE.HS.14.3.b Assess the relationship between community demographics and advocacy needs.

HSE.HS.14.3.c Explain the role of each of the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, peer helpers, volunteer helpers, and informal helpers) in advocacy.

HSE.HS.14.4 Outline specific community outreach programs, resources, and connections as they relate to families.

HSE.HS.14.4.a Explain the role school organizations can play in advocating for schools and communities.

HSE.HS.14.4.b Describe local family and community services (e.g., organizations, government resources).

HSE.HS.14.4.c Locate local support resources for specific populations.

HSE.HS.14.5 Analyze the importance of individuals, families, and communities participating in their civic duties as local advocates.

HSE.HS.14.5.a Define civic duty.

HSE.HS.14.5.b Explain the role of individuals, families, and communities in advocacy as it relates to living in a democratic society.

HSE.HS.14.5.c Identify how individuals, families, and communities can work towards fulfilling their civic responsibilities.

HSE.HS.14.5.d Describe the process of advocating for an issue.

HSE.HS.14.5.e Explain the role elected officials could play in advocacy.

HSE.HS.14.5.f Describe what advocacy looks like at the local, state, and national levels.

FAMILY AND COMMUNITY ADVOCACY(cont.)

HSE.HS.14.6 Analyze the importance of resilience in families and communities.

HSE.HS.14.6.a Define resilience.

HSE.HS.14.6.b Describe what a resilient individual, family, and community look like and the correlation between them.

HSE.HS.14.6.c Analyze the importance of individuals and families being advocates for themselves and its effects on a community.

HSE.HS.14.7 Analyze service-learning and its connection to civic responsibility.

HSE.HS.14.7.a Identify ways to serve individuals, families, and communities.

HSE.HS.14.7.b Apply knowledge of advocacy and leadership to benefit individuals, families, and communities.

HSE.HS.14.7.c Identify opportunities for personal growth through serving individuals, families, and communities.

HSE.HS.14.7.d Explain how service-learning is a key to fulfilling civic responsibilities.

INTERPERSONAL RELATIONSHIPS

COURSE DESCRIPTION

This capstone course focuses on the effect of interpersonal relationships building on concepts from the introductory and intermediate courses. The course includes concepts such as effective communication, establishing and maintaining relationships, diverse family systems, characteristics of personal development, and the impact of relationships on personal and career success. The impact of relationships on the well-being of individuals, families, work, and society will also be explored.

STANDARDS AND INDICATORS:

HSE.HS.24.1 Analyze personal needs and characteristics and their effects on interpersonal relationships.

HSE.HS.24.1.a Examine the effects of personal characteristics and life events on relationships.

HSE.HS.24.1.b Describe the effects of self-esteem and self-image on relationships.

HSE.HS.24.1.c Describe the effects of lifespan events and conditions on relationships.

HSE.HS.24.1.d Explain the effects of personal values and behaviors on interpersonal relationships.

HSE.HS.24.2 Analyze the effects of family as a system on individuals and society.

HSE.HS.24.2.a Describe the function of the family as the basic unit of society.

HSE.HS.24.2.b Examine the role of family in teaching culture and traditions across the lifespan.

HSE.HS.24.2.c Summarize the family's role in developing independence, interdependence, and commitment of family members.

HSE.HS.24.2.d Describe the effects of various stages of the family life cycle on interpersonal relationships.

INTERPERSONAL RELATIONSHIPS (cont.)

HSE.HE.24.3 Evaluate the functions and expectations of various types of interpersonal relationships.

HSE.HS.24.3.a Categorize the various types of interpersonal relationships.

HSE.HS.24.3.b Identify the characteristics of healthy and unhealthy relationships.

HSE.HS.24.3.c Describe processes for building, maintaining, and ending interpersonal relationships.

HSE.HS.24.3.d Identify physical, intellectual, emotional, and social characteristics of healthy and unhealthy relationships and behaviors including limits, boundaries, and refusal skills.

HSE.HS.24.3.e Analyze processes for handling unhealthy relationships.

HSE.HS.24.3.f Relate personal values, rights, and responsibilities in relationships to overall health and decision making.

HSE.HS.24.4 Evaluate communication skills that contribute to healthy relationships.

HSE.HS.24.4.a Compare communication styles and their effects on relationships.

HSE.HS.24.4.b Analyze verbal and nonverbal behaviors and attitudes that contribute to effective communication.

HSE.HS.24.4.c Demonstrate effective listening and feedback techniques.

HSE.HS.24.4.d Analyze strategies to overcome communication barriers in family, community, and work settings.

HSE.HS.24.4.e Apply ethical principles of communication in family, community, and work settings.

HSE.HS.24.4.f Assess the effects of communication via technology in family, work, and community settings.

INTERPERSONAL RELATIONSHIPS (cont.)

HSE.HS.24.5 Outline principles that guide behavior in interpersonal relationships.

HSE.HS.24.5.a	Explain the principles of decision making and problem solving in reducing and managing conflict in interpersonal relationships.
HSE.HS.24.5.b	Identify nonviolent strategies that address conflict and model positive leadership. (e.g., self awareness, self-regulation, motivation, empathy and social skills).
HSE.HS.24.5.c	Identify stress management strategies for family, work, and community settings.

BEHAVIORAL HEALTH I (HS)

COURSE DESCRIPTION

This course establishes a foundation that is necessary to understand Behavioral Health and investigate the career field of Behavioral Health. Course emphasis is placed on teaching students to successfully investigate Behavioral Health, education preparation, workforce structure and acquire awareness and knowledge of this career area. It is recommended that students complete Behavioral Health I before taking Behavioral Health II.

STANDARDS AND INDICATORS:

HS.HS.1.1 Evaluate the impact of Behavioral Health in American society and on current health and wellness trends.

HS.HS.1.1.a	Identify current behavioral health issues and how they impact society
HS.HS.1.1.b	Interpret the historical overview and development of behavioral health in the United States.
HS.HS.1.1.c	Explain the role of behavioral health in society: your school, local, state, national, and international.
HS.HS.1.1.d	Explain the rationale behind the need for behavioral health.
HS.HS.1.1.g	Describe the code of ethics among professionals providing behavioral health services.
HS.HS.1.1.e	Differentiate between illness and mental illness.
HS.HS.1.1.f	Differentiate between behavioral health and mental health.
HS.HS.1.1.h	Evaluate the appropriateness and accuracy of information sources (e.g., literature, research, electronic information).

BEHAVIORAL HEALTH I (cont.)

HS.HS.1.2. Interpret behavioral health-related medical terms.

HS.HS.1.2.a Identify behavioral health prefixes, word roots, and suffixes.

HS.HS.1.2.b Construct behavioral health terms.

HS.HS.1.2.c Explain the reasoning behind standardized terminology in behavioral health.

HS.HS.1.3 Describe professional preparation, roles, and responsibilities of behavioral health providers.

HS.HS.1.3.a Describe the education requirements of behavioral health providers: psychologists, psychiatrists, psychiatric physician assistants, psychiatric nurses, licensed mental health practitioners, licensed drug and alcohol counselors, direct care professionals, school psychologists, and non-clinical social workers.

HS.HS.1.3.b Describe the professional roles and responsibilities of behavioral health providers: psychologists, psychiatrists, psychiatric physician assistants, psychiatric nurses, counselors and licensed mental health practitioners, licensed drug and alcohol counselors, marriage and family counselors, direct care professionals, school psychologists, and social workers.

HS.HS.1.4 Describe behavioral health interprofessional collaboration.

HS.HS.1.4.a Explain the role of the United States Department of Health as it relates to the state of Nebraska governing board for behavioral health professionals.

HS.HS.1.4.b Describe behavioral health professional organizations and the role they serve for the behavioral health professional: American Psychological Association, National Council for Counselors, WHO's Mental Health Atlas, etc.

HS.HS.1.5 Describe behavioral health and its integration into primary care providers.

HS.HS.1.5.a Explain the advantages/disadvantages of integrated behavioral health in a primary care environment.

HS.HS.1.5.b Summarize the levels of integrated behavioral health such as Boys Town, CHI Health, State Correctional Facility, Nebraska Medicine, etc.

BEHAVIORAL HEALTH II (HS)

COURSE DESCRIPTION

This course establishes a foundation that is necessary to understand Behavioral Health and investigate the career field of Behavioral Health. Course emphasis is placed on students successfully gaining skills in the field of Behavioral Health: explaining behavioral health assessments and treatments, addressing one's own mental health, investigating behavioral health career data in Nebraska, and advocating for the needs of others. It is recommended that students complete Behavioral Health I before taking Behavioral Health II.

STANDARDS AND INDICATORS:

HS.HS.2.1 Explain behavioral health assessments and treatments.

HS.HS.2.1.a	Explain how the Diagnostic and Statistical Manual of Mental Disorders (DSM) handbook is used in diagnosis and treatment in behavioral health.
HS.HS.2.1.b	Compare behavioral health assessment and treatment plans (e.g., ADHD, depression, anxiety).
HS.HS.2.1.c	Describe progression of services from group to individualized therapy.
HS.HS.2.1.d	Describe theories and interventions being used in mental and social health (cognitive behavioral therapy (CBT), dialectical behavior therapy (DBT), creative arts therapy (CAT), emotionally focused therapy (EFT), and solution-focused brief therapy (SFBT).
HS.HS.2.1.e	Describe informed consent and how it impacts behavioral health.
HS.HS.2.1.f	Describe an individual treatment plan and its use.

BEHAVIORAL HEALTH II (cont.)

HS.HS.2.2 Create a plan and related actions and activities to improve one's own mental health and general well-being.

HS.HS.2.2.a Summarize how personal values and experiences influence one's usage of behavioral health services.

HS.HS.2.2.b Describe strategies to develop and evaluate personal mindfulness awareness plans.

HS.HS.2.2.c Explain how social and behavioral interventions are used to improve behavioral and social health in schools and communities.

HS.HS.2.3 Describe behavioral health career outlook projections and preparation in Nebraska

HS.HS.2.3.a Describe a behavioral health career path.

HS.HS.2.3.b Explain a personal career interest area, employment outlook, salary scale, and Nebraska licensing requirements.

HS.HS.2.3.c Describe the challenges and opportunities for behavioral health careers in Nebraska.

HS.HS.2.3.d Interpret data on behavioral health services deficit areas in Nebraska.

HS.HS.2.3.e Describe the educational path to a career in behavioral health.

HS.HS.2.3.f Explain educational costs (e.g., scholarships, grants, federal loans, personal bank loans, and cost of interest and loan repayment).

BEHAVIORAL HEALTH II (cont.)

HS.HS.2.4 Demonstrate advocacy that supports the needs and rights of others.

HS.HS.2.4.a	Identify conferences, workshops, and retreats that educate and support behavioral health issues.
HS.HS.2.4.b	Explain advocacy and its application to behavioral health.
HS.HS.2.4.c	Describe efforts to reduce stigma of mental health through public education (e.g., Substance Abuse and Mental Health Services Administration).
HS.HS.2.4.d	Describe barriers to behavioral health provider access.
HS.HS.2.4.e	Demonstrate ways to advocate for friends and family members who need support for behavioral health issues.
HS.HS.2.4.f	Demonstrate ways to advocate for a positive, respectful school environment that supports pro-social behavior (e.g., handling teasing and bullying and reducing stigma associated with mental and behavioral health).

INTRODUCTION TO DESIGN

COURSE DESCRIPTION

This introductory course explores the definition, application and evaluation of elements and principles of design in the interior and apparel industries. Topics covered include knowledge of textiles, apparel skills, and interior design skills. Design technology, career opportunities and the skills necessary for careers in design will also be included.

STANDARDS AND INDICATORS:

HSE.HS.26.1 Apply the use of elements and principles of design.

HSE.HS.26.1.a	Identify the elements and principles of design.
HSE.HS.26.1.b	Apply elements of design.
HSE.HS.26.1.c	Apply principles of design.
HSE.HS.26.1.d	Explain the interactions between color and design.
HSE.HS.26.1.e	Explain components of design for their effect on various products.

HSE.HS.26.2 Repurpose a used item using the technology available within the design industry.

HSE.HS.26.2.a	Apply elements of design.
HSE.HS.26.2.b	Apply principles of design.
HSE.HS.26.2.c	Compare the use of elements and principles of design.
HSE.HS.26.2.d	Generate information, knowledge, and experience to generate original ideas and challenge assumptions.
HSE.HS.26.2.e	Identify solutions to problems to maximize opportunities related to repurposing.
HSE.HS.26.2.f	Apply the use of appropriate technology tools for conveying information, solving problems, expediting workplace processes, and effectively presenting information.

INTRODUCTION TO DESIGN (cont.)

HSE.HS.26.3 Analyze the effect of textile characteristics on design, construction, care, use, and maintenance of items.

HSE.HS.26.3.a Identify characteristics of natural fibers (e.g, cotton, wool, silk, linen, bamboo, hemp).

HSE.HS.26.3.b Identify characteristics of synthetic and/or manmade fibers (e.g., polyester, nylon, rayon, acrylic, acetate, Spandex, Olefin, fiberglass).

HSE.HS.26.3.c Differentiate between the characteristics of common textiles.

HSE.HS.26.3.d Compare textiles for different purposes in apparel and interiors.

HSE.HS.26.3.e Assess and select textiles for their quality and appropriateness.

HSE.HS.26.4 Demonstrate basic apparel construction and interior design skills.

HSE.HS.26.4.a Demonstrate proper use of sewing and interior design tools and equipment.

HSE.HS.26.4.b Demonstrate proper measuring, pinning, cutting, and construction techniques to construct an apparel or fashion item.

HSE.HS.26.4.c Demonstrate proper measuring techniques, scaling techniques, furniture placement, and selection of appropriate materials to construct an interior design product.

HSE.HS.26.5 Analyze career paths within the design field.

HSE.HS.26.5.a Explain the roles and functions of individuals engaged in design careers.

HSE.HS.26.5.b Summarize education, training, and credentialing requirements and opportunities for careers in the design field.

HSE.HS.26.5.c Describe the opportunities for entrepreneurship in the design field.

HSE.HS.26.5.d Analyze the role of professional organizations in design professions.

HSE.HS.26.5.e Analyze personal attitudes, traits, and values of design professionals with regard to responsibility, accountability, ethics, and effectiveness.

APPAREL PRODUCTION AND CONSTRUCTION

COURSE DESCRIPTION

This intermediate course provides an understanding of garment and apparel construction building on concepts from the introductory course. Topics covered will include career exploration, textile and apparel design, creation, alteration, selection, and maintenance. This course integrates knowledge, skills, technology, and practices required for careers in the apparel and textiles industry.

STANDARDS AND INDICATORS:

HSE.HS.1.1 Generate textiles, fashion, and apparel design products using a variety of equipment, tools, and supplies.

- HSE.HS.1.1.a Create apparel products using methods including flat pattern, pattern alterations, repurposing, and clothing design and construction.
- HSE.HS.1.1.b Produce, alter, or repair fashion and apparel items.
- HSE.HS.1.1.c Apply sewing construction skills to create fashion and apparel items.
- HSE.HS.1.1.d Use appropriate products and materials for cleaning, pressing, and finishing fashion and apparel items.
- HSE.HS.1.1.e Apply appropriate math skills in apparel construction.

HSE.HS.1.2 Analyze effects of textile characteristics on design, construction, care, use, and maintenance of products.

- HSE.HS.1.2.a Identify emerging fibers and fabric technologies (e.g., antimicrobial, wicking, electronic textiles, performance textiles).
- HSE.HS.1.2.b Explain how fabric selection affects the finish of products.
- HSE.HS.1.2.c Identify various types of fabric finishes (e.g., stain resistant, fire resistant, wrinkle resistant, waterproof).
- HSE.HS.1.2.d Apply methods of coloring, dyeing, printing, and finishing fabrics.
- HSE.HS.1.2.e Select textiles for their quality and appropriateness for use.

APPAREL PRODUCTION AND CONSTRUCTION (cont.)

HSE.HS.1.3 Produce fashion and apparel items using design industry technology.

HSE.HS.1.3.a Identify the workplace value of technology tools and applications.

HSE.HS.1.3.b Use the appropriate technology tools for conveying information, solving problems, and expediting workplace processes.

HSE.HS.1.3.c Analyze current technology, trends, and innovations that facilitate the design and production of textiles, fashion, and apparel.

HSE.HS.1.3.d Appraise the effect of fast fashion and sustainability practices.

HSE.HS.1.3.e Create apparel items using design industry technology.

HSE.HS.1.4 Apply business principles in the apparel and textiles industry.

HSE.HS.1.4.a Explain how products are priced for selling (material costs, labor costs, overhead costs).

HSE.HS.1.4.b Apply the 4P's of marketing (product, place, price, promotion).

HSE.HS.1.4.c Describe the opportunities for entrepreneurship.

HSE.HS.1.4.d Describe the knowledge and skills required of an entrepreneur.

HSE.HS.1.5 Demonstrate skills and develop a plan that could lead to a career within the apparel and textiles industry.

HSE.HS.1.5.a Carry out tasks with minimal supervision.

HSE.HS.1.5.b Execute tasks to ensure progress toward stated objectives.

HSE.HS.1.5.c Demonstrate the ability to reason critically and systematically.

HSE.HS.1.5.d Demonstrate a willingness to learn new knowledge and skills.

HSE.HS.1.5.e Exhibit professional etiquette in all interactions.

HSE.HS.1.5.f Create an employment portfolio to use when seeking job opportunities in the apparel and textiles industry.

HOME DESIGN AND INTERIORS

COURSE DESCRIPTION

This intermediate course focuses on the physical, psychological and social influences of housing styles building on concepts from the introductory course. Materials are analyzed for the selection, use and care of home interior items to improve living space for individual and family needs. Content integrates knowledge, skills, technology and practices required for careers in housing and interior design.

STANDARDS AND INDICATORS:

HSE.HS.22.1 Evaluate housing and design concepts and theories, including sustainability and universal design, in relation to available resources and options.

- HSE.HS.22.1.a Apply principles of human behavior to the design of housing, interiors and furnishings.
- HSE.HS.22.1.b Evaluate the use of elements and principles of design in housing design and commercial and residential interiors.
- HSE.HS.22.1.c Analyze the psychological impact that the principles and elements of design have on the individual.
- HSE.HS.22.1.d Analyze the effects that the principles and elements of design have on aesthetics and function.
- HSE.HS.22.1.e Explain how fabric selection affects the finish of products.

HSE.HS.22.2 Evaluate the influence of architecture, interior design, and furnishings throughout history.

- HSE.HS.22.2.a Distinguish between the styles of architecture, interior design, furniture, and furnishings.
- HSE.HS.22.2.b Describe the development of architectural styles throughout history.
- HSE.HS.22.2.c Compare and contrast historical architectural details to current housing and interior design trends.
- HSE.HS.22.2.d Explain societal and technological trends and their impact on architecture and interior design styles throughout history.
- HSE.HS.22.2.e Assess design and development trends in architecture, interior design, and furnishings.

HOME DESIGN AND INTERIORS (cont.)

HSE.HS.22.3 Evaluate the design and function of interior space.

HSE.HS.22.3.a Evaluate living space needs and apply space management guidelines to interior designs.

HSE.HS.22.3.b Determine traffic flow, activity, and existing architectural features in creating floor plans responding to needs of all populations (e.g., aging, handicapped).

HSE.HS.22.3.c Arrange furniture placement with reference to design principles, traffic flow, activity, and existing architectural features.

HSE.HS.22.3.d Evaluate floor plans for efficiency and safety, including but not limited to zones, traffic patterns, furniture placement, storage, and electrical and mechanical systems.

HSE.HS.22.4 Generate a design using technology utilized within the design industry.

HSE.HS.22.4.a Identify the workplace value of technology tools and applications.

HSE.HS.22.4.b Use the appropriate technology tools for conveying information, solving problems, expediting workplace processes, and effectively presenting information.

HSE.HS.22.4.c Create designs using technology commonly used in the interior design field.

HSE.HS.22.4.d Prepare visual presentations using a variety of media methods to communicate the design concept.

HOME DESIGN AND INTERIORS (cont.)

HSE.HS.22.5 Evaluate the needs, goals, and resources of a client to design interiors.

HSE.HS.22.5.a	Identify how geographic locations, safety, security, energy efficiency, aesthetic preferences, and required maintenance affect housing choices for individuals, families, and communities.
HSE.HS.22.5.b	Assess financial resources needed to achieve housing and interior design goals.
HSE.HS.22.5.c	Apply adaptive and universal design concepts to meet client needs.
HSE.HS.22.5.d	Evaluate and select furnishings, fixtures, and appliances to meet specific design needs.
HSE.HS.22.5.e	Summarize the purposes of various views in architectural drawings including plan views, elevation view, and section and detail views, as well as the use of renderings, models, and isometric drawings.
HSE.HS.22.5.f	Demonstrate scaling, 2D elevations, utilization of architectural symbols, and the manual drawing used for interior design.
HSE.HS.22.5.g	Demonstrate design board planning and sample curation.

HSE.HS.22.6 Apply business principles in the design industry.

HSE.HS.22.6.a	Explain how products and services are priced for selling (material costs, labor costs, overhead costs).
HSE.HS.22.6.b	Demonstrate measuring, estimating, ordering, purchasing, and pricing skills for design products (e.g., furnishings, appliances, floor coverings).
HSE.HS.22.6.c	Apply the 4P's of marketing (product, place, price, promotion).
HSE.HS.22.6.d	Incorporate recycle and redesign principles.

HOME DESIGN AND INTERIORS (cont.)

HSE.HS.22.7 Analyze career paths within the housing and interior design industries.

HSE.HS.22.7.a Explain the roles and functions of professionals in the housing and interior design industries.

HSE.HS.22.7.b Summarize education, training, and credentialing requirements and career opportunities in the housing and interior design industries.

HSE.HS.22.7.c Describe the knowledge and skills required of an entrepreneur.

HSE.HS.22.7.d Analyze opportunities for employment and entrepreneurial endeavors in the housing and interior design industries.

FASHION DESIGN

COURSE DESCRIPTION

This intermediate course explores skills needed for the evolving field of the fashion and apparel industry building on concepts from the introductory course. Topics covered include examining fashion history, fashion trends, distinguishing characteristics of garments, career opportunities, and business principles. The design process will be practiced from fashion concept to implementation through the use of technology.

STANDARDS AND INDICATORS:

HSE.HS.12.1 Evaluate the influence of history on fashion.

- HSE.HS.12.1.a Compare theories of various fashion movements.
- HSE.HS.12.1.b Interpret the impact of trends and fashion cycles on fashion.
- HSE.HS.12.1.c Summarize the achievements of notable fashion designers (e.g., Coco Chanel, Gianni Versace, Giorgio Armani, Marc Jacobs, Yves Saint Laurent).
- HSE.HS.12.1.d Relate current fashions to various historical influences.
- HSE.HS.12.1.e Compare and contrast sustainability practices throughout history.
- HSE.HS.12.1.f Evaluate the impact of history, arts and culture, and global influences on textiles, fashion, and apparel.

HSE.HS.12.2 Analyze the effects of textile characteristics on design, construction, care, use, and maintenance of products.

- HSE.HS.12.2.a Identify emerging sustainability trends in design.
- HSE.HS.12.2.b Describe methods of coloring, dyeing, printing, and finishing fabrics.
- HSE.HS.12.2.c Explain how fabric selection affects the finish of products.
- HSE.HS.12.2.d Identify emerging fibers and fabric technologies (e.g., antimicrobial, wicking, electronic textiles, performance textiles).
- HSE.HS.12.2.e Analyze the quality of fashion and apparel items, including the construction and fit.
- HSE.HS.12.2.f Explain the ways in which fabric, texture, pattern, and finish can affect visual appearance.

FASHION DESIGN (cont.)

HSE.HS.12.3 Analyze the components of design and their effect on various products.

HSE.HS.12.3.a Explain how to use elements and principles of design for optimal aesthetics.

HSE.HS.12.3.b Analyze garment styles and parts and their effect on fit and appearance.

HSE.HS.12.4 Design, produce, alter, and repair fashion and apparel items.

HSE.HS.12.4.a Utilize the elements and principles of design to design and/or alter fashion and apparel items.

HSE.HS.12.3.b Apply color theory to enhance visual effect.

HSE.HS.12.4.c Demonstrate techniques used in apparel design (e.g., draping, digital design, flat pattern).

HSE.HS.12.4.d Execute a design considering ecological, environmental, ethical, sociological, psychological, technical, and economical factors, trends, and issues.

HSE.HS.12.4.e Demonstrate professional and technical sewing skills and use of traditional and technologically innovative equipment, tools, and supplies in fashion and apparel item construction, alteration, repair, and recycling.

HSE.HS.12.4.f Use appropriate industry products and materials for cleaning, pressing, and finishing fashion and apparel items.

HSE.HS.12.4.g Demonstrate appropriate procedures for recycling and care and disposal of textile products, considering diverse needs locally and globally.

HSE.HS.12.5 Create designs utilizing technology within the design industry.

HSE.HS.12.5.a Identify the workplace value of technology tools and applications.

HSE.HS.12.5.b Use the appropriate technology tools for conveying information, solving problems, expediting workplace processes, and effectively presenting information.

HSE.HS.12.5.c Analyze current technology, trends, and innovations that facilitate the design and production of textiles, fashion, and apparel.

FASHION DESIGN (cont.)

HSE.HS.12.6 Develop an apparel collection based on client interest.

HSE.HS.12.6.a Develop a design concept foundation through customer identification and research.

HSE.HS.12.6.b Outline the stages in the apparel design process (e.g., inspiration, research, fabric development, sketching, prototypes, final samples).

HSE.HS.12.6.c Analyze the influences of cultural expectations as a factor in customer relations.

HSE.HS.12.6.d Generate original ideas and challenge assumptions.

HSE.HS.12.6.e Develop croquis sketch variations to discover design possibilities and solutions.

HSE.HS.12.6.f Revise the collection through an editing process to maintain cohesion and consistency.

HSE.HS.12.7 Analyze professional practice and procedures for business profitability and career success in the design industry.

HSE.HS.12.7.a Explain how products are priced for selling (material costs, labor costs, overhead costs).

HSE.HS.12.7.b Apply the marketing mix (product, place, price, promotion).

HSE.HS.12.7.c Analyze opportunities for employment and entrepreneurial endeavors in the fashion design field.

HSE.HS.12.7.d Summarize education and training requirements and career opportunities in the textiles, fashion, and apparel industries.

HSE.HS.12.7.e Analyze the effects of the textiles, fashion, and apparel industries on local, state, national, and global economies.

HSE.HS.12.7.f Describe the progression of ethical practices in the design industry (sustainability--public health, welfare, environment; environmental responsibility; human ethical impact of fibers used in the industry--labor, labeling information).

ENTREPRENEURSHIP (BMM)

COURSE DESCRIPTION

Entrepreneurship is a course with emphasis on the evaluation of the business skills and commitment necessary to successfully operate an entrepreneurial venture and review the challenges and rewards of entrepreneurship. The role of entrepreneurial businesses in the United States and the impact on the national and global economy will be explored.

STANDARDS AND INDICATORS:

BMM.HS.13.1 Identify characteristics and skills of entrepreneurs.

BMM.HS.13.1.a	Analyze personal strengths, skills, and talents necessary to be an entrepreneur.
BMM.HS.13.1.b	Identify responsible behavior, attitude, and leadership ability.
BMM.HS.13.1.c	Demonstrate problem-solving skills.
BMM.HS.13.1.d	Describe the history and development of successful and non-successful entrepreneurial ventures.
BMM.HS.13.1.e	Explore career opportunities in entrepreneurship.

BMM.HS.13.2 Evaluate business ownership as related to entrepreneurship.

BMM.HS.13.2.a	Identify and compare advantages and disadvantages of various forms of business ownership.
BMM.HS.13.2.b	Explain the legal and ethical issues affecting businesses.
BMM.HS.13.2.c	Analyze the advantages and disadvantages of methods of entering an entrepreneurial venture.

ENTREPRENEURSHIP (cont.)

BMM.HS.13.3 Analyze the management, financial, marketing, and legal skills necessary to successfully operate and grow an entrepreneurial venture.

- BMM.HS.13.3.a Describe the importance of strategic management to a small entrepreneurial business.
- BMM.HS.13.3.b Develop vision, mission, goals, objectives, and policies for an entrepreneurial venture.
- BMM.HS.13.3.c Explain the importance of effective financial management in developing, growing, and sustaining an entrepreneurial venture.
- BMM.HS.13.3.d Develop a marketing plan and strategies to position the product and/or service in the target market.
- BMM.HS.13.3.e Identify the legal documents and financial records for business operations.
- BMM.HS.13.3.f Evaluate the venture idea utilizing the components of a business plan.

BMM.HS.13.4 Analyze the role of entrepreneurship in the global economy.

- BMM.HS.13.4.a Identify entrepreneurial venture opportunities in international trade.
- BMM.HS.13.4.b Analyze global issues and trends for entrepreneurial ventures.
- BMM.HS.13.4.c Determine the impact of cultural and social requirements on international trade.

ADVANCED DIGITAL DESIGN (CIS)

COURSE DESCRIPTION

Students will focus on utilizing advanced skills to plan, design, and create a design portfolio to showcase elements of composition, digital photography, or digital print design. These skills will prepare students for entry-level positions in the digital design field.

STANDARDS AND INDICATORS:

CIS.HS.1.1 Design client-based or personal projects utilizing composition techniques.

- CIS.HS.1.1.a Compose photographic, digital print design, or animation projects utilizing design and composition rules.
- CIS.HS.1.1.b Select appropriate hardware and software based on the final product needed by client.
- CIS.HS.1.1.c Demonstrate rules of composition.
- CIS.HS.1.1.d Construct a project and justify chosen design principles.
- CIS.HS.1.1.e Name and store native and exported files in a manageable file structure (e.g., Drive, Cloud, external hard drive).

CIS.HS.1.2 Design graphics and text that clearly express the personal perspective of intended audiences.

- CIS.HS.1.2.a Identify purpose, audience, and audience needs for preparing images.
- CIS.HS.1.2.b Determine whether content is relevant to the purpose, audience, and audience needs.
- CIS.HS.1.2.c Prepare a production schedule (e.g., creating and using a work plan, establishing milestones and deliverables).
- CIS.HS.1.2.d Assess and utilize design principles and best practices employed in the design field.

ADVANCED DIGITAL DESIGN (cont.)

CIS.HS.1.3 Simulate working in the digital design field through creation of client-based design projects.

CIS.HS.1.3.a Describe the client's purpose and audience when preparing projects to ensure the content is relevant to the client's needs.

CIS.HS.1.3.b Prepare a production schedule (e.g., creating and using a work plan, establishing milestones and deliverables).

CIS.HS.1.3.c Assess and utilize design principles and best practices employed in the design field.

CIS.HS.1.3.d Describe the importance of branding as it applies to client-based design projects.

CIS.HS.1.3.e Communicate effectively in person and through written communication with peers and clients about design plans and processes.

CIS.HS.1.4 Analyze working in the digital design field.

CIS.HS.1.4.a Analyze careers in the digital design field.

CIS.HS.1.4.b Analyze job market trends in the digital design field.

CIS.HS.1.4.c Analyze the benefits of industry certification and higher education in the field.

CIS.HS.1.4.d Investigate careers in digital design through pursuit of a job shadowing or internship experience.

ADVANCED DIGITAL DESIGN (cont.)

CIS.HS.1.5 Evaluate and comply with copyright laws.

CIS.HS.1.5.a	Determine the type of copyright, permissions, and licensing required to use specific content.
CIS.HS.1.5.b	Analyze the different types of copyright licenses and their uses. (e.g., Creative Commons, Public Domain).
CIS.HS.1.5.c	Identify legal and ethical considerations for using third-party content, such as copyright, permissions, and licensing.
CIS.HS.1.5.d	Apply copyright as it pertains to their own creative work.

CIS.HS.1.6 Create a digital portfolio which demonstrates competency in the digital design field.

CIS.HS.1.6.a	Examine professional digital portfolios as models.
CIS.HS.1.6.b	Evaluate all elements of the portfolio for compliance with copyright.
CIS.HS.1.6.c	Curate works for the portfolio that demonstrate mastery of design.
CIS.HS.1.6.d	Design portfolio itself so that it demonstrates mastery of design.
CIS.HS.1.6.e	Choose language to ensure copyright protections of the student work.
CIS.HS.1.6.f	Describe the importance of branding as it applies to their portfolio of creative work.

MARKETING (BMM)

COURSE DESCRIPTION

This course develops basic student understanding and skills in the functions of marketing. Emphasis is placed on the impact of marketing activities on the individual, business, and society. Topics include market analysis, marketing information management, target customer identification, the development of marketing-mix strategies, and an in-depth look at the selling process.

STANDARDS AND INDICATORS:

BMM.HS.19.1 Recognize the customer-oriented nature of marketing and analyze the impact of marketing activities on the individual, business, and society.

- BMM.HS.19.1.a Describe marketing functions and related activities.
- BMM.HS.19.1.b Distinguish between economic goods and services.
- BMM.HS.19.1.c Explain the principles of supply and demand.
- BMM.HS.19.1.d Determine economic utilities created by business activities.
- BMM.HS.19.1.e Explain the concept of competition.
- BMM.HS.19.1.f Identify employment opportunities in marketing.

BMM.HS.19.2 Identify marketing-information management strategies to understand its nature and scope.

- BMM.HS.19.2.a Identify the need for marketing data used to monitor marketing decision making.
- BMM.HS.19.2.b Explain the role of ethics in marketing information management.
- BMM.HS.19.2.c Discuss the nature of data mining.
- BMM.HS.19.2.d Describe the use of technology in the marketing-information management function.
- BMM.HS.19.2.d Describe the regulation of marketing-information management.

MARKETING (cont.)

BMM.HS.19.3 Apply the concepts and marketing strategies utilized to determine and target a select market.

BMM.HS.19.3.a Analyze and describe the importance of each of the components of the marketing mix.

BMM.HS.19.3.b Explain factors that influence customer/client/business buying behavior.

BMM.HS.19.3.c Analyze customer's rational and emotional buying motives and decisions.

BMM.HS.19.3.d Select target market appropriate for product/business to obtain the best return on marketing investment (ROMI).

BMM.HS.19.3.e Explain the concept of market and market identification.

BMM.HS.19.3.f Identify strategies utilized in the elements of market segmentation.

BMM.HS.19.4 Identify the concepts and actions needed to determine client needs and wants and respond through planned, personalized communication that influences purchase decisions and enhances future business opportunities.

BMM.HS.19.4.a Explain the nature and scope of the selling function.

BMM.HS.19.4.b Explain the role of customer service as a component of selling relationships for building a clientele.

BMM.HS.19.4.c Utilize sales processes and techniques to determine and satisfy customer needs.

BMM.HS.19.4.d Acquire product knowledge to communicate product benefits and to ensure appropriateness of product for the customer.

BMM.HS.19.4.e Explain legal and ethical considerations in selling.

ADVANCED MARKETING (BMM)

COURSE DESCRIPTION

This course is an expansion and application of previous marketing studies with an emphasis on learning to develop responsive marketing strategies that meet customer needs. Students will focus on organization and society where they will develop a marketing plan. Topics include market research, product development, promotion, channel management, and pricing.

STANDARDS AND INDICATORS:

BMM.HS.5.1 Analyze marketing, the marketing concept, and marketing management.

BMM.HS.5.1.a	Define the role of marketing in organizations.
BMM.HS.5.1.b	Describe how marketers create value for a product or service.
BMM.HS.5.1.c	Analyze the environment in which firms operate to develop effective marketing strategies and decisions.
BMM.HS.5.1.d	Select strategies to obtain the best return on marketing investment (ROMI).
BMM.HS.5.1.e	Evaluate marketing mix strategies in response to market opportunities and customer expectations.

BMM.HS.5.2 Analyze methods of information gathering and investigate research techniques.

BMM.HS.5.2.a	Describe the nature of marketing research.
BMM.HS.5.2.b	Investigate qualitative and quantitative research sources.
BMM.HS.5.2.c	Select and apply methods of data collection (e.g., observations, surveys, discussion forums, scanners).
BMM.HS.5.2.d	Interpret marketing information and/or data mining to test hypotheses and/or resolve issues.

ADVANCED MARKETING (cont.)

BMM.HS.5.3 Identify market segments and positioning strategies.

BMM.HS.5.3.a Identify market segmentation strategies (e.g., demographics, geographics, psychographics, and behaviors).

BMM.HS.5.3.b Analyze the elements of the marketing mix, their interrelationships, how they are used in the marketing process, and their role in positioning.

BMM.HS.5.3.c Recommend the positioning strategy that communicates the firm's or the product's value proposition.

BMM.HS.5.3.d Describe the impact of consumer differences (e.g., life stages, benefits sought, usage rate, brand loyalty, and socio-economic characteristics) on buying decisions.

BMM.HS.5.4 Evaluate marketing mix strategies.

BMM.HS.5.4.a Develop marketing mix strategies that focus on meeting customer needs and wants.

BMM.HS.5.4.b Assess current product and service strategies to determine growth strategy (e.g., market penetration, market development, product development, diversification).

BMM.HS.5.4.c Identify factors that drive channel management design (e.g., Internet, Social Media, competitive advantage).

BMM.HS.5.4.d Distinguish concepts and strategies utilized in determining and adjusting prices to maximize return and meet customers' perception of value.

BMM.HS.5.4.e Research, analyze, and recommend promotional goals and strategies as they relate to profitability and/or effectiveness in reaching the target market.

BMM.HS.5.5 Demonstrate the importance of an effective marketing plan.

BMM.HS.5.5.a Apply project management competencies in working with a viable business in the creation of a marketing plan.

BMM.HS.5.5.b Analyze current marketing strategies utilized by business.

BMM.HS.5.5.c Initiate a marketing plan by identifying target market, conducting market analysis, and reviewing SWOT analysis.

BMM.HS.5.5.d Develop marketing strategies to position and/or reposition business effectively.

BMM.HS.5.5.e Access cost effectiveness of recommended marketing strategies.

BMM.HS.5.5.f Monitor and evaluate performance of marketing plan.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES

COURSE DESCRIPTION

This introductory course is intended to provide a basic overview of all areas within Family and Consumer Sciences. Basic knowledge and career skills that are applicable to personal growth and career development will be covered. Additional course topics include: leadership, communication, child development, mental health, nutrition and food preparation, clothing and interior design, and personal finance.

STANDARDS AND INDICATORS:

HSE.HS.27.1 Apply career-readiness skills and identify potential career opportunities.

HSE.HS.27.1.a	Summarize the history of Family and Consumer Sciences and the impact of the field on individuals, families, and communities to make connections to current career-ready skills.
HSE.HS.27.1.b	Identify personal traits and compare them with potential career opportunities.
HSE.HS.27.1.c	Investigate career opportunities, including but not limited to careers within Family and Consumer Sciences.

HSE.HS.27.2 Apply leadership in family, workplace, and community.

HSE.HS.27.2.a	Investigate goal setting and resource management.
HSE.HS.27.2.b	Explain leadership styles and the impact of each style on others.
HSE.HS.27.2.c	Demonstrate strategies that utilize the strengths and minimize the limitations of team members.
HSE.HS.27.2.d	Describe the decision-making process.
HSE.HS.27.2.e	Demonstrate leadership skills within the family, workplace, or community.
HSE.HS.27.2.f	Investigate opportunities available for a member of FCCLA and/or Educators Rising.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HE.27.3 Evaluate personal and work relationships.

HSE.HS.27.3.a Compare and contrast healthy and unhealthy personal and work relationships.

HSE.HS.27.3.b Evaluate personal traits and how they can be used to improve relationships.

HSE.HS.27.3.c Demonstrate effective communication using a variety of delivery methods that can improve personal and work relationships.

HSE.HS.27.3.d Demonstrate critical thinking and conflict resolution in personal and career settings.

HSE.HS.27.3.e Demonstrate inclusive teamwork in the family, workplace, or community.

HSE.HS.27.4 Assess the family unit during each stage of the lifespan.

HSE.HS.27.4.a Identify the stages of development across the lifespan.

HSE.HS.27.4.b Categorize milestones of development in the areas of physical, intellectual, emotional, and social across the lifespan.

HSE.HS.27.4.c Analyze family as the basic unit of society.

HSE.HS.27.4.d Describe the impact of conditions that could influence the well-being of individuals and families.

HSE.HS.27.5 Identify careers in counseling, mental health, and human behavior.

HSE.HS.27.5.a Identify the importance of self-care and self-awareness.

HSE.HS.27.5.b Summarize empathy.

HSE.HS.27.5.c Examine the influence of cultural and societal issues on mental and emotional health.

HSE.HS.27.5.d Connect the role of mental health and counseling to today's society

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HS.27.6 Differentiate skills for food preparation and maintaining nutrition and wellness.

HSE.HS.27.6.a Identify basic food safety and sanitation practices.

HSE.HS.27.6.b Demonstrate basic food preparation practices.

HSE.HS.27.6.c Create meal plans that utilize food availability and cost effectiveness.

HSE.HS.27.6.d Identify basic kitchen equipment and terminology.

HSE.HS.27.6.e Analyze effects of personal choices on nutrition and wellness.

HSE.HS.27.6.f Identify basic nutrients required for healthy living.

HSE.HS.27.7 Apply skills required for fashion construction, housing, and interior design.

HSE.HS.27.7.a Classify the elements and principles of design.

HSE.HS.27.7.b Describe the basic care of different textiles.

HSE.HS.27.7.c Compare and contrast design features in fashion and/or interior design.

HSE.HS.27.7.d Produce, alter, or repair fashion and apparel items.

HSE.HS.27.7.e Apply the principles and elements of design to design a room reflecting personal, family, or community style and needs.

HSE.HS.27.8 Explain consumerism and personal finance.

HSE.HS.27.8.a Identify factors that influence consumer choices.

HSE.HS.27.8.b Summarize the rights and responsibilities of consumers.

HSE.HS.27.8.c Outline the steps for creating a budget.

HSE.HS.27.8.d Describe procedures for using savings and checking accounts.

HSE.HS.27.8.e Compare the benefits and costs of credit.

LIFESPAN DEVELOPMENT

COURSE DESCRIPTION

This introductory course explores the physical, intellectual, emotional, and social development of individuals across the lifespan from conception to death. Topics covered are external impacts on development including family structure and practices, theories of development, social and technological forces, and resources available to individuals and their outcomes.

STANDARDS AND INDICATORS:

HSE.HS.30.1 Evaluate principles of growth and development from conception through infancy.

HSE.HS.30.1.a	Describe theories, current issues, and trends.
HSE.HS.30.1.b	Identify physical, intellectual, emotional, and social development milestones.
HSE.HS.30.1.c	Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.1.d	Explain brain structure and development for this stage of life.
HSE.HS.30.1.e	Describe services and supports needed when developmental milestones are not met.
HSE.HS.30.1.f	Analyze family system roles and dynamics and how they contribute to development.
HSE.HS.30.1.g	Describe skills needed to work and engage with individuals in this stage of development.

HSE.HS.30.2 Evaluate principles of growth and development from infancy through childhood.

HSE.HS.30.2.a	Describe theories, current issues, and trends.
HSE.HS.30.2.b	Identify physical, intellectual, emotional, and social development milestones.
HSE.HS.30.2.c	Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.2.d	Explain brain structure and development for this stage of life.
HSE.HS.30.2.e	Describe services and supports needed when developmental milestones are not met.
HSE.HS.30.2.f	Analyze family system roles and dynamics and how they contribute to development.
HSE.HS.30.2.g	Demonstrate skills needed to work and engage with individuals in this stage of development.

LIFESPAN DEVELOPMENT (cont.)

HSE.HS.30.3 Evaluate principles of growth and development from childhood through adolescence.

HSE.HS.30.3.a Describe theories, current issues, and trends.

HSE.HS.30.3.b Identify physical, intellectual, emotional, and social development milestones.

HSE.HS.30.3.c Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).

HSE.HS.30.3.d Explain brain structure and development for this stage of life.

HSE.HS.30.3.e Describe services and supports needed when developmental milestones are not met.

HSE.HS.30.3.f Analyze family system roles and dynamics and how they contribute to development.

HSE.HS.30.3.g Demonstrate skills needed to work and engage with individuals in this stage of development.

HSE.HS.30.4 Evaluate principles of growth and development from adolescence through early adulthood.

HSE.HS.30.4.a Describe theories, current issues, and trends.

HSE.HS.30.4.b Identify physical, intellectual, emotional, and social development milestones.

HSE.HS.30.4.c Explain conditions influencing development (e.g., abuse, trauma, stress, social and technological forces).

HSE.HS.30.4.d Explain brain structure and development for this stage of life.

HSE.HS.30.4.e Describe services and supports needed when developmental milestones are not met.

HSE.HS.30.4.f Analyze family system roles and dynamics and how they contribute to development.

HSE.HS.30.4.g Demonstrate skills needed to work and engage with individuals in this stage of development.

LIFESPAN DEVELOPMENT (cont.)

HSE.HS.30.5 Evaluate principles of growth and development from middle to late adulthood through the end of life.

HSE.HS.30.5a	Describe theories, current issues, and trends.
HSE.HS.30.5.b	Identify physical, intellectual, emotional, and social milestones.
HSE.HS.30.5.c	Explain conditions influencing well-being (e.g., abuse, trauma, stress, social and technological forces).
HSE.HS.30.5.d	Explain brain structure and development for this stage of life.
HSE.HS.30.5.e	Describe services and supports needed for well-being.
HSE.HS.30.5.f	Analyze family system roles and dynamics and how they contribute to the well-being of individuals.
HSE.HS.30.5.g	Describe skills needed to work and engage with individuals in this stage of development.

CHILD DEVELOPMENT

COURSE DESCRIPTION

This intermediate course provides an overview of developmental stages in the prenatal period through 12 years of age building on concepts from the introductory course(s). Topics covered include how young children attain knowledge, behaviors, and skill and theories of child development to identify the effects of parenting practices, social, cultural, and linguistic diversity. The impact of quality child care and early childhood education on child growth and development will also be explored.

STANDARDS AND INDICATORS:

HSE.HS.5.1 Explain the basic principles of child development from conception to age 12.

HSE.HS.5.1.a Explain physical development milestones from conception to age 12.

HSE.HS.5.1.b Explain intellectual development milestones from conception to age 12.

HSE.HS.5.1.c Explain emotional development milestones from conception to age 12.

HSE.HS.5.1.d Explain social development milestones from conception to age 12.

HSE.HS.5.2 Evaluate child development theoretical perspectives and their applications.

HSE.HS.5.2.a Identify the various child development theorists and theories.

HSE.HS.5.2.b Evaluate developmentally appropriate child care skills from conception to age 12.

HSE.HS.5.2.c Identify parenting decisions and practices that impact healthy development from conception to age 12.

HSE.HS.5.3 Analyze family theoretical perspectives and their impact on child growth and development.

HSE.HS.5.3.a Compare and contrast theorists and theories related to family traits and child growth and development.

HSE.HS.5.3.b Classify different parenting types and styles.

HSE.HS.5.3.c Compare and contrast the different parenting styles.

HSE.HS.5.3.d Explain the impact parenting styles have on the development of young children.

CHILD DEVELOPMENT (cont.)

HSE.HS.5.4 Analyze the theoretical perspectives of social, cultural, and linguistic diversity traits and their impact on child growth and development.

HSE.HS.5.4.a Compare and contrast theorists and theories related to social, cultural, and linguistic diversity guiding childhood behaviors.

HSE.HS.5.4.b Recognize and classify different social, cultural, and linguistic diversity traits of children.

HSE.HS.5.4.c Compare and contrast the impact of the multiple influences that affect the social, cultural, and linguistic diversity traits of young children.

HSE.HS.5.4.d Explain the importance of early childhood education.

HSE.HS.5.5 Describe an understanding of career opportunities and early childhood community resources for supporting families in young children's development.

HSE.HS.5.5.a Describe career opportunities in the field of early childhood.

HSE.HS.5.5.b Identify college certificates and degree options in the field of early childhood.

HSE.HS.5.5.c Identify community resources available for supporting families with young children and their development.

HSE.HS.5.5.d Identify the purpose of the National Association for the Education of Young Children (NAEYC), Nebraska Early Childhood Profession Record System (NECPRS), and other early childhood education resources.

BEST PRACTICES IN EARLY CHILDHOOD EDUCATION WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This intermediate course will focus on assessment, observation, and curriculum within early childhood education building on concepts from the introductory course and Child Development. Topics covered include assessing children from birth to eight years of age, observing aspects of development, analyzing observational data, and creating inclusive early childhood education environments that are safe, responsive, and nurturing. Knowledge and skills will be applied within a structured work-based learning experience. The focus of the hands-on experience will include active engagement in various early childhood education programs.

STANDARDS AND INDICATORS:

HSE.HS.9.1 Differentiate between observation and assessment and skills needed to observe young children and the early childhood environment.

HSE.HS.9.1.a Define what observation is in early childhood practices in regards to child development, environment, and engagement between adults and children.

HSE.HS.9.1.b Describe the skills needed for observation.

HSE.HS.9.1.c Define what assessment is in early childhood practices in regards to child development, environment, and engagement between adults and children.

HSE.HS.9.1.d Describe the importance of observation and assessment in early childhood.

HSE.HS.9.1.e Explain how observation and assessment are used in early childhood.

HSE.HS.9.2 Analyze the progression of the areas (PIES - physical, intellectual, emotional and social) of development for young children.

HSE.HS.9.2.a Identify the developmental progression of infants and toddlers (birth to 36 months), preschool children (3-5 years), and primary grade (K-3rd) children (6-8 years).

HSE.HS.9.2.b Observe infants and toddlers, preschoolers, and primary grade (K-3rd) children and record developmental progression observations.

HSE.HS.9.2.c Analyze observational data from infants and toddlers, preschoolers, and primary grade (K-3rd) children to determine the developmental age level.

BEST PRACTICES IN EARLY CHILDHOOD EDUCATION WITH WORK-BASED LEARNING (cont.)

HSE.HS.9.3 Analyze developmentally appropriate early childhood environments.

HSE.HS.9.3.a Define developmentally appropriate for infants and toddlers, preschoolers, and primary grade (K-3rd) children.

HSE.HS.9.3.b Identify various materials, resources, and components of developmentally appropriate environments for infants and toddlers, preschoolers, and primary grade (K-3rd) children.

HSE.HS.9.3.c Identify the elements of an environmental checklist for assessing an infants and toddlers, preschool, and primary grade (K-3rd) environment.

HSE.HS.9.3.d Observe development tasks of infants and toddlers, preschool, and primary grade (K-3rd) environments.

HSE.HS.9.3.e Compare and contrast the birth through age eight environments.

HSE.HS.9.3.f Analyze observational data from infants and toddlers, preschool, and primary grade (K-3rd) environments to assess environment quality.

HSE.HS.9.4 Develop lesson plans for infants and toddlers, preschoolers, and/or primary grade (K-3rd) children using developmentally appropriate practices.

HSE.HS.9.4.a Identify the components of an effective early childhood lesson plan.

HSE.HS.9.4.b Describe various instructional strategies appropriate for infants and toddlers, preschooler, and primary grade (K-3rd) children.

HSE.HS.9.4.c Create large group, small group, and individual lesson plans that fit within the overall curriculum.

HSE.HS.9.5 Utilize feedback to continuously improve teaching practices.

HSE.HS.9.5.a Evaluate the practicum experience.

HSE.HS.9.5.b Implement continual appraisal of performance and identify strengths and weaknesses.

HSE.HS.9.5.c Develop a plan for continuous professional learning.

EARLY CHILDHOOD EDUCATION PRACTICUM WITH WORK-BASED LEARNING

COURSE DESCRIPTION

This capstone course will focus on analyzing various approaches to early childhood education curriculum models building on concepts from the introductory and intermediate courses. Topics covered will include the critical role of developmentally appropriate practices related to curriculum and planning, the development and implementation of developmentally appropriate learning experiences, and gathering evidence of professional knowledge and skill attainment. Knowledge and skills will be applied within a structured work-based learning experience. The focus of the practicum experience will include creating and gathering evidence of early childhood education skill attainment.

STANDARDS AND INDICATORS:

HSE.HS.10.1 Analyze various components of curriculum models.

HSE.HS.10.1.a Identify different types of curriculum models used in early childhood.

HSE.HS.10.1.b Summarize the relationship among theory, research, and practice in the various curriculum models.

HSE.HS.10.1.c Describe the importance of play in the curriculum to support children's development and learning.

HSE.HS.10.1.d Describe how developmentally appropriate teaching practices relate to the importance of play and curriculum.

HSE.HS.10.1.e Recognize the importance of inclusion for all families and cultural issues for unifying curriculum and learning opportunities.

HSE.HS.10.2 Demonstrate appropriate teaching strategies that enhance each child's learning and development.

HSE.HS.10.2.a Explain the current areas of skills from Nebraska's Core Competencies for Early Childhood Professionals (Child Growth and Development; Health, Safety, and Nutrition; Learning Environments; Planning, Learning Experiences, and Curriculum; Relationships and Social-Emotional Guidance; Observation, Documentation, and Assessment; Partnerships with Families and Communities; Professionalism and Leadership; Administration, Program Planning, and Development).

HSE.HS.10.2.b Demonstrate the skills required in each of the current areas of Nebraska's Core Competencies for Early Childhood Professionals.

EARLY CHILDHOOD EDUCATION PRACTICUM WITH WORK-BASED LEARNING (cont.)

HSE.HS.10.3 Demonstrate integration of curriculum and instruction within a daily schedule.

HSE.HS.10.3.a Develop a daily schedule for an infant-toddler classroom.

HSE.HS.10.3.b Develop a daily schedule for a preschool classroom.

HSE.HS.10.3.c Develop a daily schedule for a kindergarten classroom.

HSE.HS.10.3.d Develop a daily schedule for one primary grade classroom (grades 1-3).

HSE.HS.10.3.e Compare and contrast differences between early childhood settings.

HSE.HS.10.4 Integrate developmentally appropriate learning experiences using effective teaching strategies.

HSE.HS.10.4.a Develop learning opportunities to teach individual children and small groups specific skills through exploration and play.

HSE.HS.10.4.b Implement learning experiences for social and emotional development.

HSE.HS.10.4.c Implement learning experiences for approaches to learning (e.g., support initiative, self-direction, curiosity).

HSE.HS.10.4.e Implement learning experiences for health and physical development.

HSE.HS.10.4.f Implement learning experiences for language and literacy.

HSE.HS.10.4.g Implement learning experiences for mathematics.

HSE.HS.10.4.h Implement learning experiences for science.

HSE.HS.10.4.i Implement learning experiences for creative arts.

EARLY CHILDHOOD EDUCATION PRACTICUM WITH WORK-BASED LEARNING (cont.)

HSE.HS.10.5 Provide evidence of professional knowledge and skills attained from early childhood education coursework and field experiences.

HSE.HS.10.5.a Collect artifacts to demonstrate professional knowledge of working with children ages birth to 36 months, 3-5, and 5-8 (e.g., lesson plans, skill attainment records, evidence of experience).

HSE.HS.10.5.b Write an early childhood education philosophy statement.

HSE.HS.10.5.c Develop an early childhood education resource collection.

HSE.HS.10.6 Model teaching practices with the goal of continuous improvement through a work-based learning experience.

HSE.HS.10.6.a Evaluate the practicum experience.

HSE.HS.10.6.b Implement continual appraisal of performance and identify strengths and weaknesses.

HSE.HS.10.6.c Develop a plan for continuous professional learning.

FAMILIES IN CRISIS

COURSE DESCRIPTION

This intermediate course will explore the impact of crisis situations on families building on concepts from the introductory course(s). Topics include stress, changes in the family life cycle, grief and loss, and mental health disorders. An emphasis will be placed on services available to support families while developing foundational knowledge and skills.

STANDARDS AND INDICATORS:

HSE.HS.13.1 Analyze non-therapeutic helper careers which serve individuals, families, and communities.

HSE.HS.13.1.a Outline the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, volunteer helpers, peer helpers, and informal helpers).

HSE.HS.13.1.b Describe the role of each of the six types of helpers in the process of supporting families in crisis situations.

HSE.HS.13.2 Analyze factors that influence crisis in a family.

HSE.HS.13.2.a List characteristics of healthy and unhealthy families and their effect on society.

HSE.HS.13.2.b Compare and contrast a variety of diverse family structures.

HSE.HS.13.2.c Describe how families help meet the needs of individuals using Maslow's Hierarchy of Needs.

HSE.HS.13.2.d Explain the importance of healthy communication and conflict resolution in a family.

HSE.HS.13.2.e Compare and contrast financial, physical, social, emotional, cultural, and spiritual issues and the role of stress in families.

HSE.HS.13.2.f Define crisis and differentiate a crisis situation from a stressful situation.

HSE.HS.13.2.g Identity common crisis situations families face (e.g., mental illness, abuse, addiction, grief, suicide, job loss, homelessness).

FAMILIES IN CRISIS (cont.)

HSE.HS.13.3 Evaluate societal views of mental health and common mental health disorders.

HSE.HS.13.3.a Define stigma and explain its effects on those with mental illness.

HSE.HS.13.3.b Identify ways to minimize stigma surrounding mental illness and seeking help for mental health problems.

HSE.HS.13.3.c Identify and analyze common risk factors for developing mental disorders (genetic, environmental).

HSE.HS.13.3.d Analyze the process of diagnosing mental illness.

HSE.HS.13.3.e Explain the effects mental illness and suicide has on the family.

HSE.HS.13.3.f Assess the signs and symptoms of a potential suicidal individual and steps that should be taken to seek help.

HSE.HS.13.3.g Identify community resources to help families facing mental health crises.

HSE.HS.13.4 Evaluate the effects of abuse on a family.

HSE.HS.13.4.a Identify types of abuse, causes, and common signs and symptoms in each stage of the family life cycle.

HSE.HS.13.4.b Analyze the roles and their characteristics in an abuse situation (bystander, abuser, victim/survivor).

HSE.HS.13.4.c Identify mandatory reporting laws and processes in Nebraska and resources available to help families.

HSE.HS.13.4.d Explain Adverse Childhood Experiences (ACEs) and their potential effects.

HSE.HS.13.4.e Compare and contrast healthy and unhealthy relationships.

HSE.HS.13.4.f Explain the stages of the Cycle of Abuse considering the barriers surrounding generational abuse.

FAMILIES IN CRISIS (cont.)

HSE.HS.13.5 Evaluate the effects of addiction on the family unit.

HSE.HS.13.5.a Define addiction and explore the risk factors associated with developing an addiction (genetic, environmental).

HSE.HS.13.5.b Analyze the science of physical and psychological addiction and how they are connected.

HSE.HS.13.5.c Assess community resources, treatment, and recovery methods of addiction.

HSE.HS.13.5.d Explain the connection (comorbidity) between mental illness and addiction.

HSE.HS.13.5.e Analyze the effects of multiple family members living with addiction at the same time.

HSE.HS.13.6 Analyze the process of grieving.

HSE.HS.13.6.a Define grief and explain that grief can occur with a variety of losses (e.g., loss of a friendship or pet, moving, loss of experience).

HSE.HS.13.6.b Compare and contrast a variety of theories of grief (Five Stages, Tonkin's Model, Four Tasks of Grieving, Six Rs, Dual Process Model, Reconstruction of Meaning).

HSE.HS.13.6.c Analyze family relationships in the grieving process.

HSE.HS.13.6.d Compare and contrast healthy and unhealthy coping mechanisms for dealing with grief.

HSE.HS.13.6.e Identify community resources to help families facing grief.

HSE.HS.13.7 Analyze methods of overcoming crisis.

HSE.HS.13.7.a Describe the qualities of a resilient individual.

HSE.HS.13.7.b Define mindfulness and techniques used to be mindful in everyday life.

HSE.HS.13.7.c Explain the importance of mindfulness and self-awareness in overcoming crisis.

HSE.HS.13.7.d Explain the importance of self-care and list strategies for implementing self-care.

HSE.HS.13.7.e Describe the importance of growth mindset in regards to neuroplasticity.

HSE.HS.13.7.f Identify common mental distortions (filtering, overgeneralizing, catastrophizing, personalization).

FAMILY AND COMMUNITY ADVOCACY

COURSE DESCRIPTION

This capstone course explores advocacy as it relates to individuals, families, and communities building on concepts from the introductory and intermediate courses. Topics covered include leadership within advocacy, careers related to advocacy, the role of community support in advocacy, importance of resiliency, and civic responsibilities. The importance of service-learning will also be addressed.

STANDARDS AND INDICATORS:

HSE.HS.14.1 Analyze the various dimensions of being an advocate for individuals, families, and communities.

HSE.HS.14.1.a Define what it means to be an advocate.

HSE.HS.14.1.b Explain the importance of advocating for others.

HSE.HS.14.1.c Identify situations where advocates would be involved.

HSE.HS.14.1.d Discuss the connection between crisis and advocacy.

HSE.HS.14.1.e Explain the history of advocacy and events or periods in time that required advocacy for individuals, families, and communities.

HSE.HS.14.1.f Explain the impact of advocacy on individuals, families, communities, and society.

HSE.HS.14.2 Assess the leadership role of the advocate.

HSE.HS.14.2.a Explain how an advocate is a leader.

HSE.HS.14.2.b Identify strong intrapersonal and interpersonal relationship skills (conflict resolution, teamwork, attentive listening skills).

HSE.HS.14.2.c Analyze how an individual's view of the world is impacted by their level of self-awareness as it relates to individual beliefs and values.

HSE.HS.14.2.d Analyze the importance of ethical behavior as a leader and advocate.

FAMILY AND COMMUNITY ADVOCACY(cont.)

HSE.HS.14.3 Identify careers related to serving families and communities.

HSE.HS.14.3.a Describe specific roles or careers that have a direct connection to advocating for families (e.g., child-life advocate, family advocate).

HSE.HS.14.3.b Assess the relationship between community demographics and advocacy needs.

HSE.HS.14.3.c Explain the role of each of the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, peer helpers, volunteer helpers, and informal helpers) in advocacy.

HSE.HS.14.4 Outline specific community outreach programs, resources, and connections as they relate to families.

HSE.HS.14.4.a Explain the role school organizations can play in advocating for schools and communities.

HSE.HS.14.4.b Describe local family and community services (e.g., organizations, government resources).

HSE.HS.14.4.c Locate local support resources for specific populations.

HSE.HS.14.5 Analyze the importance of individuals, families, and communities participating in their civic duties as local advocates.

HSE.HS.14.5.a Define civic duty.

HSE.HS.14.5.b Explain the role of individuals, families, and communities in advocacy as it relates to living in a democratic society.

HSE.HS.14.5.c Identify how individuals, families, and communities can work towards fulfilling their civic responsibilities.

HSE.HS.14.5.d Describe the process of advocating for an issue.

HSE.HS.14.5.e Explain the role elected officials could play in advocacy.

HSE.HS.14.5.f Describe what advocacy looks like at the local, state, and national levels.

FAMILY AND COMMUNITY ADVOCACY(cont.)

HSE.HS.14.6 Analyze the importance of resilience in families and communities.

HSE.HS.14.6.a Define resilience.

HSE.HS.14.6.b Describe what a resilient individual, family, and community look like and the correlation between them.

HSE.HS.14.6.c Analyze the importance of individuals and families being advocates for themselves and its effects on a community.

HSE.HS.14.7 Analyze service-learning and its connection to civic responsibility.

HSE.HS.14.7.a Identify ways to serve individuals, families, and communities.

HSE.HS.14.7.b Apply knowledge of advocacy and leadership to benefit individuals, families, and communities.

HSE.HS.14.7.c Identify opportunities for personal growth through serving individuals, families, and communities.

HSE.HS.14.7.d Explain how service-learning is a key to fulfilling civic responsibilities.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS

COURSE DESCRIPTION

This introductory course provides students with foundational knowledge and skills in food preparation and nutrition planning. Topics covered include career exploration, global food systems, six essential nutrients, dietary recommendations, kitchen and food safety and sanitation, food preparation skills, and meal planning concepts.

STANDARDS AND INDICATORS:

HSE.HS.21.1 Apply skills to meet career goals within the food, nutrition, and culinary industries.

HSE.HS.21.1.a Demonstrate working as a member of a diverse team.

HSE.HS.21.1.b Demonstrate professional practices required in the workplace.

HSE.HS.21.1.c Summarize roles, responsibilities, education, training, and credentialing requirements for careers within the food, nutrition, and culinary industries.

HSE.HS.21.1.d Compare and contrast personal strengths, talents, interests, and passions to the skills and traits required of the workplace.

HSE.HS.21.2 Analyze U.S. and global food systems and their impact on personal health.

HSE.HS.21.2.a Compare and contrast definitions of health and wellness.

HSE.HS.21.2.b Analyze farm to table for a variety of food products grown locally and globally.

HSE.HS.21.2.c Identify issues surrounding global production of food and how sustainability and conservation practices are connected.

HSE.HS.21.3 Analyze the six essential nutrients and their purposes in the body.

HSE.HS.21.3.a Identify key bodily functions of the six essential nutrients and the components of each.

HSE.HS.21.3.b Summarize the digestion, absorption, and metabolic processes associated with the use of nutrients in the digestive system.

HSE.HS.21.3.c Identify the nutrient density of a variety of foods for each of the nutrients.

HSE.HS.21.3.d Interpret the impact and effects of over or underconsumption of each nutrient.

HSE.HS.21.3.e Explain the concept of calories and energy density of foods.

HSE.HS.21.3.f Apply nutrition mathematical concepts to calculate energy from nutrients and the energy composition of a food item.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS (cont.)

HSE.HS.21.4 Integrate current dietary recommendations and guidelines to plan and analyze a healthy diet.

HSE.HS.21.4.a Recognize reliable sources of nutrition information (e.g., Dietary Reference Intakes, Dietary Guidelines, MyPlate model, food labels).

HSE.HS.21.4.b Compare and contrast personal eating habits to current recommendations for a healthy diet.

HSE.HS.21.4.c Apply current dietary recommendations and guidelines to meal planning.

HSE.HS.21.4.d Identify package labeling components.

HSE.HS.21.4.e Analyze the Nutrition Facts label to determine nutrient contributions of a variety of foods.

HSE.HS.21.5 Demonstrate effective food and kitchen safety and sanitation procedures.

HSE.HS.21.5.a Identify microorganisms which are related to food spoilage and foodborne illnesses.

HSE.HS.21.5.b Apply proper personal hygiene, health habits, and industry-standard apparel.

HSE.HS.21.5.c Sequence the requirements for proper receiving and storage of prepared foods and identify signs of food spoilage and contamination (e.g., FIFO - first in first out).

HSE.HS.21.5.d Identify the critical control points and the Temperature Danger Zone during all food handling processes as a method for minimizing the risk of foodborne illness (HACCP system).

HSE.HS.21.5.e Demonstrate kitchen safety practices to prevent accidents (e.g., slips, burns, fires, shock, cuts, equipment accidents, poisoning).

HSE.HS.21.5.f Implement a safety and sanitation inspection and identify modifications necessary for compliance with standards.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS (cont.)

HSE.HS.21.6 Demonstrate foundational food preparation techniques.

HSE.HS.21.6.a Demonstrate foundational culinary techniques (measuring, knife skills, folding, creaming) and correct use of kitchen equipment.

HSE.HS.21.6.b Demonstrate mise en place.

HSE.HS.21.6.c Demonstrate proper scaling techniques to convert recipes to yield smaller and larger quantities.

HSE.HS.21.6.d Apply the fundamentals of time, temperature, and cooking methods (dry, moist, combination) to cooking, cooling, reheating, and holding a variety of foods.

HSE.HS.21.6.e Demonstrate the preparation techniques for common essential nutrient-dense food sources (fruits, vegetables, proteins, carbohydrates, dairy products).

HSE.HS.21.6.f Label and store fresh and finished food products appropriately to reduce spoilage.

HSE.HS.21.7 Create a meal plan based on the dietary recommendations for individuals and families across the lifespan.

HSE.HS.21.7.a Identify food purchasing strategies used by consumers (e.g., store layout, comparison shopping).

HSE.HS.21.7.b Develop a market order and time management plan.

HSE.HS.21.7.c Identify the categories of a menu (e.g., appetizers, sandwiches, entrees).

HSE.HS.21.7.d Apply recommended portion sizes to food preparation and serving.

HSE.HS.21.7.e Recognize and make dietary modifications for special dietary needs.

NUTRITION

COURSE DESCRIPTION

This intermediate course provides students with an introduction to the science of nutrition building on concepts from the introductory course. Topics covered include careers in nutrition, digestion and metabolism, functions of the six essential nutrients, nutrient recommendations, diets, meal planning, creating accommodations for consumers, and impacts of the national food system on production and consumerism. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.18.1 Analyze career paths within the food, nutrition, and wellness field.

HSE.HS.18.1.a Summarize education, training, and credentialing requirements and career opportunities in the food, nutrition, and wellness field.

HSE.HS.18.1.b Differentiate between personal attitudes and traits of food, nutrition, and wellness professionals in regards to responsibility, accountability, ethics, and effectiveness in the workplace.

HSE.HS.18.2 Identify and Explain the parts and functions of the digestive system.

HSE.HS.18.2.a Identify the anatomy of the gastrointestinal system.

HSE.HS.18.2.b Explain the digestive process.

HSE.HS.18.2.c Explain the utilization and short, medium, and long-term storage of nutrients inside the body.

HSE.HS.18.2.d Explain how the body excretes waste products.

NUTRITION (cont.)

HSE.HS.18.3 Analyze individual characteristics specific to macronutrients, micronutrients, and water.

HSE.HS.18.3.a Identify the chemical composition and energy yield of carbohydrates, proteins, and fats.

HSE.HS.18.3.b Differentiate between soluble and insoluble fiber and complete and incomplete proteins.

HSE.HS.18.3.c Identify the functions of vitamins, minerals, and water.

HSE.HS.18.3.d Identify the categories of vitamins (including fat and water soluble) and minerals (including major and trace).

HSE.HS.18.3.e Identify the recommended intake levels of and food sources high in vitamins, minerals, and water.

HSE.HS.18.3.f Explain deficiencies and toxicities related to vitamin and mineral consumption.

HSE.HS.18.4 Analyze current dietary recommendations and guidelines for planning a healthy diet.

HSE.HS.18.4.a Explain the Dietary Reference Intake terms Estimated Average Requirement (EAR), Recommended Daily Allowance (RDA), Adequate Intake (AI), and Tolerable Upper Intake Level (UL).

HSE.HS.18.4.b Describe the concepts of variety, moderation, and balance as the foundation of a healthy diet.

HSE.HS.18.4.c Compare and contrast various food recording tools.

HSE.HS.18.4.d Utilize nutrition information to calculate nutrient composition of foods, meals, and daily intake.

HSE.HS.18.4.e Discuss short- and long-term impact of current dietary intake habits.

HSE.HS.18.4.f Compare and contrast the nutrient density of whole foods, convenience foods, and prepared foods to make informed food choices.

NUTRITION (cont.)

HSE.HS.18.5 Analyze the effects of dietary patterns and practices on an individual's health and well-being across the lifespan.

HSE.HS.18.5.a Identify a variety of healthy dietary patterns.

HSE.HS.18.5.b Compare and contrast popular fad diets and food industry trends.

HSE.HS.18.5.c Describe energy balance, physical activity, and weight control to prevent obesity and achieve nutritional adequacy.

HSE.HS.18.5.d Explain weight gain/weight loss concepts considering basal metabolic rate (BMR) and total daily energy expenditure (TDEE).

HSE.HS.18.5.e Identify the prevention, symptoms, and treatment of eating disorders.

HSE.HS.18.5.f Compare and contrast food allergies and food intolerances.

HSE.HS.18.5.g Apply dietary recommendations and guidelines to design meal plans for individuals with special dietary needs (e.g., heart disease, diabetes, celiac disease).

HSE.HS.18.6 Analyze U.S. and global food systems and impacts on individual, family, and community health.

HSE.HS.18.6.a Explain the biological, social, psychological, economic, political, and/or cultural influences on individual and community nutrition practices.

HSE.HS.18.6.b Summarize the effects of social determinants on personal food choices, food systems, and public health.

HSE.HS.18.6.c Explain the impact of cultural influences on food consumption and traditions within family units.

HSE.HS.18.6.d Analyze the impact of the rising cost of food, poverty, food deserts, food insecurity, and the growing world population on individuals, families, communities, and society.

HSE.HS.18.6.e Compare and contrast food and nutrition policies and their impact on individuals, families, communities, and society.

HSE.HS.18.6.f Discuss different approaches and solutions including the critical science perspective to address food system change through advocacy, policy, and/or political action.

FOOD SCIENCE

COURSE DESCRIPTION

This capstone course focuses on food science and the food science industry building on concepts from the introductory and intermediate courses. Topics of study include food science history and career opportunities, evaluation of the six essential nutrients, role of science and technology in food products, and food development, production, and marketing. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.19.1 Analyze the food science industry.

HSE.HS.19.1.a Explain the history of food science.

HSE.HS.19.1.b Identify career opportunities within the food science industry.

HSE.HS.19.1.c Compare and contrast food production companies and their products.

HSE.HS.19.1.d Analyze career opportunities matched to personal life skills, talents, career goals, and local industry trends within the food science industry.

HSE.HS.19.2 Demonstrate the recommended procedures and safe equipment use in the food science lab facility.

HSE.HS.19.2.a Demonstrate leadership, effective communication, and teamwork skills in the food science lab.

HSE.HS.19.2.b Demonstrate the safe and accurate use of measuring, preparation, heating, packaging, and storage equipment in the lab setting.

HSE.HS.19.2.c Utilize the scientific method.

HSE.HS.19.3 Identify and evaluate the basic principles of proper nutrition, including the identification and evaluation of the six essential nutrients needed for good health.

HSE.HS.19.3.a Identify the roles and properties of carbohydrates, fats, proteins, vitamins, minerals and water.

HSE.HS.19.3.b Analyze the effects of food science and technology on meeting nutritional needs.

HSE.HS.19.3.c Analyze how the scientific and technical advances in product development, food processing, storage, and distribution influence nutrition and wellness.

FOOD SCIENCE (cont.)

HSE.HS.19.4 Outline the fundamentals of food chemistry.

HSE.HS.19.4.a Define basic food chemistry principles (e.g., elements, compounds, heterogeneous and homogeneous mixtures, solutions, colloidal dispersions, emulsions, pH applications, catalysts, use of enzymes, use of leavening agents, thermodynamics).

HSE.HS.19.4.b Describe basic chemical reactions that happen during food preparation and their effect(s) on nutrition.

HSE.HS.19.4.c Differentiate between simple and complex carbohydrates and their uses in foods for impact on digestion, nutrition, and food preparation procedures.

HSE.HS.19.4.d Describe the functions of amino acids and proteins and their uses in foods for impact on digestion, nutrition, and food preparation procedures.

HSE.HS.19.4.e Relate the composition of fats and proteins to their functions in foods and their i mpact on digestion, nutrition, and food preparation procedures.

HSE.HS.19.4.f Identify the role of water in food production.

HSE.HS.19.5 Analyze the role of food safety and sanitation on microorganisms in food products.

HSE.HS.19.5.a Differentiate between parasites, bacteria, yeasts, molds, and viruses.

HSE.HS.19.5.b Identify microorganisms that cause foodborne illness in humans and how to control or eliminate them.

HSE.HS.19.5.c Analyze the effects of technological advances on selection, preparation, packaging, and storage of food.

HSE.HS.19.5.d Analyze state and federal laws and regulations governing food inspection standards.

HSE.HS.19.5.e Identify appropriate packaging for food safety and label requirements.

HSE.HS.19.5.f Demonstrate safe preparation/heating/storage methods on a variety of food products.

FOOD SCIENCE (cont.)

HSE.HS.19.6 Assess the biology and physics of food production.

HSE.HS.19.6.a	Describe the structure of water in different states and its influence on a food product's viscosity/fluidity and water activity.
HSE.HS.19.6.b	Explain the difference between smoke point, flash point, and fire point when dealing with oils in processing foods.
HSE.HS.19.6.c	Classify the chemical reactions and physical changes that occur in a variety of cooking/preparation methods.
HSE.HS.19.6.d	Identify the purpose of natural and artificial food additives.
HSE.HS.19.6.e	Identify agencies involved in regulating food additives.
HSE.HS.19.5.f	Describe properties of a desirable food preservative.

HSE.HS.19.7 Evaluate food products for appropriate production and marketing strategies.

HSE.HS.19.7.a	Analyze various factors that affect food preferences in the marketing of food to a variety of populations.
HSE.HS.19.7.b	Compare and contrast flavor, texture, aroma, and appearance of various foods.
HSE.HS.19.7.c	Analyze the impact of food presentation methods and techniques on consumer appeal of food and products.
HSE.HS.19.7.d	Analyze data when making development and marketing decisions.
HSE.HS.19.7.e	Review food product cost and price recommendations for wholesale and retail sales.

ENTREPRENEURSHIP (BMM)

COURSE DESCRIPTION

Entrepreneurship is a course with emphasis on the evaluation of the business skills and commitment necessary to successfully operate an entrepreneurial venture and review the challenges and rewards of entrepreneurship. The role of entrepreneurial businesses in the United States and the impact on the national and global economy will be explored.

STANDARDS AND INDICATORS:

BMM.HS.13.1 Identify characteristics and skills of entrepreneurs.

BMM.HS.13.1.a	Analyze personal strengths, skills, and talents necessary to be an entrepreneur.
BMM.HS.13.1.b	Identify responsible behavior, attitude, and leadership ability.
BMM.HS.13.1.c	Demonstrate problem-solving skills.
BMM.HS.13.1.d	Describe the history and development of successful and non-successful entrepreneurial ventures.
BMM.HS.13.1.e	Explore career opportunities in entrepreneurship.

BMM.HS.13.2 Evaluate business ownership as related to entrepreneurship.

BMM.HS.13.2.a	Identify and compare advantages and disadvantages of various forms of business ownership.
BMM.HS.13.2.b	Explain the legal and ethical issues affecting businesses.
BMM.HS.13.2.c	Analyze the advantages and disadvantages of methods of entering an entrepreneurial venture.

ENTREPRENEURSHIP (cont.)

BMM.HS.13.3 Analyze the management, financial, marketing, and legal skills necessary to successfully operate and grow an entrepreneurial venture.

BMM.HS.13.3.a	Describe the importance of strategic management to a small entrepreneurial business.
BMM.HS.13.3.b	Develop vision, mission, goals, objectives, and policies for an entrepreneurial venture.
BMM.HS.13.3.c	Explain the importance of effective financial management in developing, growing, and sustaining an entrepreneurial venture.
BMM.HS.13.3.d	Develop a marketing plan and strategies to position the product and/or service in the target market.
BMM.HS.13.3.e	Identify the legal documents and financial records for business operations.
BMM.HS.13.3.f	Evaluate the venture idea utilizing the components of a business plan.

BMM.HS.13.4 Analyze the role of entrepreneurship in the global economy.

BMM.HS.13.4.a	Identify entrepreneurial venture opportunities in international trade.
BMM.HS.13.4.b	Analyze global issues and trends for entrepreneurial ventures.
BMM.HS.13.4.c	Determine the impact of cultural and social requirements on international trade.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (AFNR)

COURSE DESCRIPTION

The introductory course for the Agriculture, Food, and Natural Resources Career Cluster provides a knowledge base in the major components of the industry. Learners will be exposed to a broad range of agriculture, food, and natural resources careers, cluster foundation knowledge and skills, and introduction to leadership development and the National FFA Organization (FFA). Classroom and laboratory activities are supplemented through supervised agricultural experiences, career exploration activities, and FFA leadership programs and activities.

STANDARDS AND INDICATORS:

AFNR.HS.20.1 Apply leadership skills and knowledge through the study of the FFA Career and Technical Student Organization (CTSO).

AFNR.HS.20.1.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.1.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.1.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.1.d	Examine and practice public speaking.
AFNR.HS.20.1.e	Apply the basics of Parliamentary Procedure.

AFNR.HS.20.2 Apply career readiness principles in an authentic workplace environment.

AFNR.HS.20.2.a	Summarize the five components of a Foundational Supervised Agricultural Experience (SAE).
AFNR.HS.20.2.b	Investigate the five options for an Immersion SAE (Work-Based Learning experience).
AFNR.HS.20.2.c	Articulate elements of career plans (e.g., academic, AFNR/CTE coursework, FFA/CTSO participation, immersion SAE) required in an AFNR workplace setting.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (AFNR) (cont.)

AFNR.HS.20.3 Examine career options within agriculture, food, and natural resource systems and perform research based on personal interests.

AFNR.HS.20.3.a	Summarize the three-component model of a comprehensive Agricultural Education Program.
AFNR.HS.20.3.b	Recognize the mission, purpose, and key historical moments in the National FFA Organization.
AFNR.HS.20.3.c	Investigate opportunities available for a member of FFA.
AFNR.HS.20.3.d	Examine and practice public speaking.
AFNR.HS.20.3.e	Apply the basics of Parliamentary Procedure.
AFNR.HS.20.3.c	Determine common qualities of a specific career area (e.g., educational requirements, work environment).
AFNR.HS.20.3.d	Identify necessary steps to prepare for a specific AFNR careers (coursework, post-secondary, needed skills).
AFNR.HS.20.3.e	Identify opportunities for work placed learning within your community.

AFNR.HS.20.4 Evaluate the role of water, air, soil, and habitat in the management of natural resource systems.

AFNR.HS.20.4.a	Summarize and classify the different natural resources (e.g., water, soil, renewable, non-renewable).
AFNR.HS.20.4.b	Summarize the components that comprise all ecosystems.
AFNR.HS.20.4.c	Compare and categorize biotic and abiotic factors in various habitats.
AFNR.HS.20.4.d	Identify the importance of water and air quality.
AFNR.HS.20.4.e	Identify the physical qualities of the soil that determine use for the environmental service system.
AFNR.HS.20.4.f	Describe the importance of water conservation.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (AFNR) (cont.)

AFNR.HS.20.5 Differentiate key terms, components, and uses for animals in animal systems.

AFNR.HS.20.5.a	Identify and summarize key terminology used in animal systems (e.g., heifer vs. cow, bull vs. steer, calving, farrowing, bovine, equine).
AFNR.HS.20.5.b	Define the function of basic external and internal organs of animals.
AFNR.HS.20.5.c	Differentiate production animals from companion animals.
AFNR.HS.20.5.d	Classify the major components of production animal systems (e.g., feedlots, cow-calf operations, farrow, finish) and regional distribution.
AFNR.HS.20.5.e	Categorize uses for and products generated from production animals.
AFNR.HS.20.5.f	Classify and determine uses for companion animals.

AFNR.HS.20.6 Summarize knowledge of plant anatomy and the functions of plant structures and processes to activities associated with plant systems.

AFNR.HS.20.6.a	Classify major components of the plant industry.
AFNR.HS.20.6.b	Classify plants according to life cycles.
AFNR.HS.20.6.c	Identify the function of plant parts.
AFNR.HS.20.6.d	Identify basic processes and role of photosynthesis, respiration, and transpiration.
AFNR.HS.20.6.e	Differentiate between sexual and asexual propagation techniques.

AFNR.HS.20.7 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.7.a	Summarize biotechnology and the historical impact it has had on agriculture.
AFNR.HS.20.7.b	Identify current and future applications of biotechnology in agriculture, food, and natural resources.
AFNR.HS.20.7.c	Identify common methodologies used in biotechnology.
AFNR.HS.20.7.d	Identify basic cellular structures and genetic terminology.
AFNR.HS.20.7.e	Summarize the scientific and social implications of modern genetically modified organisms.

INTRODUCTION TO AGRICULTURE, FOOD, AND NATURAL RESOURCES (AFNR) (cont.)

AFNR.HS.20.8 Summarize knowledge of the food products & processing industry.

AFNR.HS.20.8.a	Evaluate how different foods affect the human body and its physical and cellular processes.
AFNR.HS.20.8.b	Identify food safety and sanitation procedures for handling and processing to as sure food quality.
AFNR.HS.20.8.c	Summarize food safety procedures when storing and distributing products to consumption.
AFNR.HS.20.8.d	Explain the producer-to-consumer processes in the food industry.

AFNR.HS.20.9 Summarize management principles, skills, and practices in agribusiness.

AFNR.HS.20.9.a	Define major sectors within the agribusiness industry.
AFNR.HS.20.9.b	Identify standard production and agribusiness records and plans.
AFNR.HS.20.9.c	Identify common agribusiness terminology and tools to track and analyze business decisions and transactions.
AFNR.HS.20.9.d	Articulate the role of markets, trade, competition, and price in relation to business sales and market planning.
AFNR.HS.20.9.e	Identify aspects needed to develop and implement an effective record keeping strategy for financial and human resources.

AFNR.HS.20.10 Synthesize the historical, social, cultural, and potential applications of biotechnology.

AFNR.HS.20.10.a	Identify and practice safe laboratory practices and procedures.
AFNR.HS.20.10.b	Select and operate proper tools and equipment related to agricultural processes observing all safety precautions.
AFNR.HS.20.10.c	Develop an agricultural project plan with the required project plan components (e.g., purpose, materials, budget, skills required, timeframe).
AFNR.HS.20.10.d	Assess a project plan to completion.

LIFESPAN NUTRITION AND WELLNESS

COURSE DESCRIPTION

This capstone course focuses on nutritional needs throughout the lifespan building on concepts from the introductory and intermediate courses. This course focuses on connecting lifespan development to nutrition and exercise practices with the intent of contributing to wellness and longevity. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.31.1 Identify and explain basic nutrition principles for meeting nutrition and wellness needs.

- HSE.HS.31.1.a Identify the function and nutrient dense sources of the six essential nutrients.
- HSE.HS.31.1.b Explain current dietary recommendations.
- HSE.HS.31.1.c Calculate energy intake for weight management.
- HSE.HS.31.1.d Describe useful nutrition assessment tools for use with each stage of the lifespan.
- HSE.HS.31.1.e Explain resources for nutrition and wellness needs to use with each stage of the lifespan.

HSE.HS.31.2 Evaluate nutrition and wellness needs during pre-conception, pregnancy, and lactation.

- HSE.HS.31.2.a Analyze the essential nutrients for optimal health for individuals during pre-conception, pregnancy and lactation.
- HSE.HS.31.2.b Explain nutrition-related medical conditions that may occur during pregnancy and their impact on the mother and fetus.
- HSE.HS.31.2.c Classify the recommendations for physical activity during preconception and pregnancy.
- HSE.HS.31.2.d Compare and contrast the ideal diet for a pregnant woman with the ideal diet for a lactating mother, highlighting the specific nutritional differences.
- HSE.HS.31.2.e Explain circumstances under which a mother should not breastfeed.

LIFESPAN NUTRITION & WELLNESS (cont.)

HSE.HS.31.3 Evaluate nutrition and wellness needs during infancy, toddler, preschool, and middle childhood stages.

HSE.HS.31.3.a Summarize the connection between good nutrition and physical, intellectual, emotional, and social development.

HSE.HS.31.3.b Identify diet recommendations for infants, toddlers, preschoolers, and primary grade children.

HSE.HS.31.3.c Compare the nutritional value of breastmilk to the nutritional value of formula.

HSE.HS.31.3.d Explain specific nutrient roles in the body of a developing child, giving special attention to vitamins and minerals.

HSE.HS.31.3.e Examine the role of a caregiver in providing food from infancy through middle childhood.

HSE.HS.31.3.f Describe the challenges associated with children's diets and outline strategies for dealing with such problems (e.g., childhood allergies, childhood obesity, aversions, influence of media and screen time).

HSE.HS.31.4 Evaluate nutrition and wellness needs during adolescence.

HSE.HS.31.4.a Explain the growth and consequent nutritional needs of adolescence.

HSE.HS.31.4.b Describe how eating patterns in adolescents affect overall health (e.g., sleep quality, energy, mood, physical development).

HSE.HS.31.4.c Identify nutrition-related medical conditions that may occur during adolescence along with prevention/intervention strategies.

HSE.HS.31.4.d Explain the spectrum of body dissatisfaction, dieting, disordered eating, and eating disorders.

HSE.HS.31.4.e Explain the recommendations for physical activity during adolescence.

LIFESPAN NUTRITION & WELLNESS (cont.)

HSE.HS.31.5 Evaluate the difference between the recommendations for a typical adolescent versus an adolescent involved in vigorous physical activity.

HSE.HS.31.5.a Describe the role of each nutrient for peak performance of the physically active adolescent.

HSE.HS.31.5.b Differentiate nutrient needs based on type, frequency, intensity, and duration of exercise.

HSE.HS.31.5.c Summarize the recommendations for assessing and maintaining healthy hydration.

HSE.HS.31.5.d Evaluate pre- and post-workout diet plans and timing of meals and snack intake for the physically active adolescent.

HSE.HS.3156.e Describe supplements and their use.

HSE.HS.31.6 Evaluate nutrition and wellness needs during adulthood and older adulthood.

HSE.HS.31.6.a Identify nutrient needs for adulthood and why they change over time.

HSE.HS.31.6.b Outline nutrition-related medical conditions that may occur during adulthood along with prevention/intervention strategies.

HSE.HS.31.6.c Identify strategies for weight management and the challenges of weight management during adulthood and older adulthood.

HSE.HS.31.6.d Examine the role of nutrition in fostering longevity and in reducing the risk of chronic diseases.

HSE.HS.31.6.e Explain the recommendations for physical activity during adulthood.

HSE.HS.31.7 Identify career options as they pertain to nutrition and wellness throughout the lifespan.

HSE.HS.31.7.a Identify a variety of careers related to nutrition and wellness through the lifespan (e.g., job shadowing, guest speakers, interview professionals, visit a professional or educational setting).

HSE.HS.31.7.b Summarize skills and knowledge necessary for a successful career in nutrition and wellness careers.

HSE.HS.31.7.c Identify professional and ethical considerations in various nutrition and wellness work settings.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS

COURSE DESCRIPTION

This introductory course provides students with foundational knowledge and skills in food preparation and nutrition planning. Topics covered include career exploration, global food systems, six essential nutrients, dietary recommendations, kitchen and food safety and sanitation, food preparation skills, and meal planning concepts.

STANDARDS AND INDICATORS:

HSE.HS.21.1 Apply skills to meet career goals within the food, nutrition, and culinary industries.

- HSE.HS.21.1.a Demonstrate working as a member of a diverse team.
- HSE.HS.21.1.b Demonstrate professional practices required in the workplace.
- HSE.HS.21.1.c Summarize roles, responsibilities, education, training, and credentialing requirements for careers within the food, nutrition, and culinary industries.
- HSE.HS.21.1.d Compare and contrast personal strengths, talents, interests, and passions to the skills and traits required of the workplace.

HSE.HS.21.2 Analyze U.S. and global food systems and their impact on personal health.

- HSE.HS.21.2.a Compare and contrast definitions of health and wellness.
- HSE.HS.21.2.b Analyze farm to table for a variety of food products grown locally and globally.
- HSE.HS.21.2.c Identify issues surrounding global production of food and how sustainability and conservation practices are connected.

HSE.HS.21.3 Analyze the six essential nutrients and their purposes in the body.

- HSE.HS.21.3.a Identify key bodily functions of the six essential nutrients and the components of each.
- HSE.HS.21.3.b Summarize the digestion, absorption, and metabolic processes associated with the use of nutrients in the digestive system.
- HSE.HS.21.3.c Identify the nutrient density of a variety of foods for each of the nutrients.
- HSE.HS.21.3.d Interpret the impact and effects of over or underconsumption of each nutrient.
- HSE.HS.21.3.e Explain the concept of calories and energy density of foods.
- HSE.HS.21.3.f Apply nutrition mathematical concepts to calculate energy from nutrients and the energy composition of a food item.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS (cont.)

HSE.HS.21.4 Integrate current dietary recommendations and guidelines to plan and analyze a healthy diet.

HSE.HS.21.4.a Recognize reliable sources of nutrition information (e.g., Dietary Reference Intakes, Dietary Guidelines, MyPlate model, food labels).

HSE.HS.21.4.b Compare and contrast personal eating habits to current recommendations for a healthy diet.

HSE.HS.21.4.c Apply current dietary recommendations and guidelines to meal planning.

HSE.HS.21.4.d Identify package labeling components.

HSE.HS.21.4.e Analyze the Nutrition Facts label to determine nutrient contributions of a variety of foods.

HSE.HS.21.5 Demonstrate effective food and kitchen safety and sanitation procedures.

HSE.HS.21.5.a Identify microorganisms which are related to food spoilage and foodborne illnesses.

HSE.HS.21.5.b Apply proper personal hygiene, health habits, and industry-standard apparel.

HSE.HS.21.5.c Sequence the requirements for proper receiving and storage of prepared foods and identify signs of food spoilage and contamination (e.g., FIFO - first in first out).

HSE.HS.21.5.d Identify the critical control points and the Temperature Danger Zone during all food handling processes as a method for minimizing the risk of foodborne illness (HACCP system).

HSE.HS.21.5.e Demonstrate kitchen safety practices to prevent accidents (e.g., slips, burns, fires, shock, cuts, equipment accidents, poisoning).

HSE.HS.21.5.f Implement a safety and sanitation inspection and identify modifications necessary for compliance with standards.

FUNDAMENTALS OF NUTRITION AND CULINARY ESSENTIALS (cont.)

HSE.HS.21.6 Demonstrate foundational food preparation techniques.

HSE.HS.21.6.a Demonstrate foundational culinary techniques (measuring, knife skills, folding, creaming) and correct use of kitchen equipment.

HSE.HS.21.6.b Demonstrate mise en place.

HSE.HS.21.6.c Demonstrate proper scaling techniques to convert recipes to yield smaller and larger quantities.

HSE.HS.21.6.d Apply the fundamentals of time, temperature, and cooking methods (dry, moist, combination) to cooking, cooling, reheating, and holding a variety of foods.

HSE.HS.21.6.e Demonstrate the preparation techniques for common essential nutrient-dense food sources (fruits, vegetables, proteins, carbohydrates, dairy products).

HSE.HS.21.6.f Label and store fresh and finished food products appropriately to reduce spoilage.

HSE.HS.21.7 Create a meal plan based on the dietary recommendations for individuals and families across the lifespan.

HSE.HS.21.7.a Identify food purchasing strategies used by consumers (e.g., store layout, comparison shopping).

HSE.HS.21.7.b Develop a market order and time management plan.

HSE.HS.21.7.c Identify the categories of a menu (e.g., appetizers, sandwiches, entrees, etc).

HSE.HS.21.7.d Apply recommended portion sizes to food preparation and serving.

HSE.HS.21.7.e Recognize and make dietary modifications for special dietary needs.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES

COURSE DESCRIPTION

This introductory course is intended to provide a basic overview of all areas within Family and Consumer Sciences. Basic knowledge and career skills that are applicable to personal growth and career development will be covered. Additional course topics include: leadership, communication, child development, mental health, nutrition and food preparation, clothing and interior design, and personal finance.

STANDARDS AND INDICATORS:

HSE.HS.27.1 Apply career-readiness skills and identify potential career opportunities.

HSE.HS.27.1.a	Summarize the history of Family and Consumer Sciences and the impact of the field on individuals, families, and communities to make connections to current career-ready skills.
HSE.HS.27.1.b	Identify personal traits and compare them with potential career opportunities.
HSE.HS.27.1.c	Investigate career opportunities, including but not limited to careers within Family and Consumer Sciences.

HSE.HS.27.2 Apply leadership in family, workplace, and community.

HSE.HS.27.2.a	Investigate goal setting and resource management.
HSE.HS.27.2.b	Explain leadership styles and the impact of each style on others.
HSE.HS.27.2.c	Demonstrate strategies that utilize the strengths and minimize the limitations of team members.
HSE.HS.27.2.d	Describe the decision-making process.
HSE.HS.27.2.e	Demonstrate leadership skills within the family, workplace, or community.
HSE.HS.27.2.f	Investigate opportunities available for a member of FCCLA and/or Educators Rising.

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HE.27.3 Evaluate personal and work relationships.

HSE.HS.27.3.a Compare and contrast healthy and unhealthy personal and work relationships.

HSE.HS.27.3.b Evaluate personal traits and how they can be used to improve relationships.

HSE.HS.27.3.c Demonstrate effective communication using a variety of delivery methods that can improve personal and work relationships.

HSE.HS.27.3.d Demonstrate critical thinking and conflict resolution in personal and career settings.

HSE.HS.27.3.e Demonstrate inclusive teamwork in the family, workplace, or community.

HSE.HS.27.4 Assess the family unit during each stage of the lifespan.

HSE.HS.27.4.a Identify the stages of development across the lifespan.

HSE.HS.27.4.b Categorize milestones of development in the areas of physical, intellectual, emotional, and social across the lifespan.

HSE.HS.27.4.c Analyze family as the basic unit of society.

HSE.HS.27.4.d Describe the impact of conditions that could influence the well-being of individuals and families.

HSE.HS.27.5 Identify careers in counseling, mental health, and human behavior.

HSE.HS.27.5.a Identify the importance of self-care and self-awareness.

HSE.HS.27.5.b Summarize empathy.

HSE.HS.27.5.c Examine the influence of cultural and societal issues on mental and emotional health.

HSE.HS.27.5.d Connect the role of mental health and counseling to today's society

INTRODUCTION TO FAMILY AND CONSUMER SCIENCES (cont.)

HSE.HS.27.6 Differentiate skills for food preparation and maintaining nutrition and wellness.

HSE.HS.27.6.a Identify basic food safety and sanitation practices.

HSE.HS.27.6.b Demonstrate basic food preparation practices.

HSE.HS.27.6.c Create meal plans that utilize food availability and cost effectiveness.

HSE.HS.27.6.d Identify basic kitchen equipment and terminology.

HSE.HS.27.6.e Analyze effects of personal choices on nutrition and wellness.

HSE.HS.27.6.f Identify basic nutrients required for healthy living.

HSE.HS.27.7 Apply skills required for fashion construction, housing, and interior design.

HSE.HS.27.7.a Classify the elements and principles of design.

HSE.HS.27.7.b Describe the basic care of different textiles.

HSE.HS.27.7.c Compare and contrast design features in fashion and/or interior design.

HSE.HS.27.7.d Produce, alter, or repair fashion and apparel items.

HSE.HS.27.7.e Apply the principles and elements of design to design a room reflecting personal, family, or community style and needs.

HSE.HS.27.8 Explain consumerism and personal finance.

HSE.HS.27.8.a Identify factors that influence consumer choices.

HSE.HS.27.8.b Summarize the rights and responsibilities of consumers.

HSE.HS.27.8.c Outline the steps for creating a budget.

HSE.HS.27.8.d Describe procedures for using savings and checking accounts.

HSE.HS.27.8.e Compare the benefits and costs of credit.

NUTRITION

COURSE DESCRIPTION

This intermediate course provides students with an introduction to the science of nutrition building on concepts from the introductory course. Topics covered include careers in nutrition, digestion and metabolism, functions of the six essential nutrients, nutrient recommendations, diets, meal planning, creating accommodations for consumers, and impacts of the national food system on production and consumerism. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.18.1 Analyze career paths within the food, nutrition, and wellness field.

HSE.HS.18.1.a Summarize education, training, and credentialing requirements and career opportunities in the food, nutrition, and wellness field.

HSE.HS.18.1.b Differentiate between personal attitudes and traits of food, nutrition, and wellness professionals in regards to responsibility, accountability, ethics, and effectiveness in the workplace.

HSE.HS.18.2 Identify and Explain the parts and functions of the digestive system.

HSE.HS.18.2.a Identify the anatomy of the gastrointestinal system.

HSE.HS.18.2.b Explain the digestive process.

HSE.HS.18.2.c Explain the utilization and short, medium, and long-term storage of nutrients inside the body.

HSE.HS.18.2.d Explain how the body excretes waste products.

NUTRITION (cont.)

HSE.HS.18.3 Analyze individual characteristics specific to macronutrients, micronutrients, and water.

HSE.HS.18.3.a Identify the chemical composition and energy yield of carbohydrates, proteins, and fats.

HSE.HS.18.3.b Differentiate between soluble and insoluble fiber and complete and incomplete proteins.

HSE.HS.18.3.c Identify the functions of vitamins, minerals, and water.

HSE.HS.18.3.d Identify the categories of vitamins (including fat and water soluble) and minerals (including major and trace).

HSE.HS.18.3.e Identify the recommended intake levels of and food sources high in vitamins, minerals, and water.

HSE.HS.18.3.f Explain deficiencies and toxicities related to vitamin and mineral consumption.

HSE.HS.18.4 Analyze current dietary recommendations and guidelines for planning a healthy diet.

HSE.HS.18.4.a Explain the Dietary Reference Intake terms Estimated Average Requirement (EAR), Recommended Daily Allowance (RDA), Adequate Intake (AI), and Tolerable Upper Intake Level (UL).

HSE.HS.18.4.b Describe the concepts of variety, moderation, and balance as the foundation of a healthy diet.

HSE.HS.18.4.c Compare and contrast various food recording tools.

HSE.HS.18.4.d Utilize nutrition information to calculate nutrient composition of foods, meals, and daily intake.

HSE.HS.18.4.e Discuss short- and long-term impact of current dietary intake habits.

HSE.HS.18.4.f Compare and contrast the nutrient density of whole foods, convenience foods, and prepared foods to make informed food choices.

NUTRITION (cont.)

HSE.HS.18.5 Analyze the effects of dietary patterns and practices on an individual's health and well-being across the lifespan.

HSE.HS.18.5.a Identify a variety of healthy dietary patterns.

HSE.HS.18.5.b Compare and contrast popular fad diets and food industry trends.

HSE.HS.18.5.c Describe energy balance, physical activity, and weight control to prevent obesity and achieve nutritional adequacy.

HSE.HS.18.5.d Explain weight gain/weight loss concepts considering basal metabolic rate (BMR) and total daily energy expenditure (TDEE).

HSE.HS.18.5.e Identify the prevention, symptoms, and treatment of eating disorders.

HSE.HS.18.5.f Compare and contrast food allergies and food intolerances.

HSE.HS.18.5.g Apply dietary recommendations and guidelines to design meal plans for individuals with special dietary needs (e.g., heart disease, diabetes, celiac disease).

HSE.HS.18.6 Analyze U.S. and global food systems and impacts on individual, family, and community health.

HSE.HS.18.6.a Explain the biological, social, psychological, economic, political, and/or cultural influences on individual and community nutrition practices.

HSE.HS.18.6.b Summarize the effects of social determinants on personal food choices, food systems, and public health.

HSE.HS.18.6.c Explain the impact of cultural influences on food consumption and traditions within family units.

HSE.HS.18.6.d Analyze the impact of the rising cost of food, poverty, food deserts, food insecurity, and the growing world population on individuals, families, communities, and society.

HSE.HS.18.6.e Compare and contrast food and nutrition policies and their impact on individuals, families, communities, and society.

HSE.HS.18.6.f Discuss different approaches and solutions including the critical science perspective to address food system change through advocacy, policy, and/or political action.

LIFESPAN NUTRITION AND WELLNESS

COURSE DESCRIPTION

This capstone course focuses on nutritional needs throughout the lifespan building on concepts from the introductory and intermediate courses. This course focuses on connecting lifespan development to nutrition and exercise practices with the intent of contributing to wellness and longevity. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.31.1 Identify and explain basic nutrition principles for meeting nutrition and wellness needs.

- HSE.HS.31.1.a Identify the function and nutrient dense sources of the six essential nutrients.
- HSE.HS.31.1.b Explain current dietary recommendations.
- HSE.HS.31.1.c Calculate energy intake for weight management.
- HSE.HS.31.1.d Describe useful nutrition assessment tools for use with each stage of the lifespan.
- HSE.HS.31.1.e Explain resources for nutrition and wellness needs to use with each stage of the lifespan.

HSE.HS.31.2 Evaluate nutrition and wellness needs during pre-conception, pregnancy, and lactation.

- HSE.HS.31.2.a Analyze the essential nutrients for optimal health for individuals during pre-conception, pregnancy and lactation.
- HSE.HS.31.2.b Explain nutrition-related medical conditions that may occur during pregnancy and their impact on the mother and fetus.
- HSE.HS.31.2.c Classify the recommendations for physical activity during preconception and pregnancy.
- HSE.HS.31.2.d Compare and contrast the ideal diet for a pregnant woman with the ideal diet for a lactating mother, highlighting the specific nutritional differences.
- HSE.HS.31.2.e Explain circumstances under which a mother should not breastfeed.

LIFESPAN NUTRITION & WELLNESS (cont.)

HSE.HS.31.3 Evaluate nutrition and wellness needs during infancy, toddler, preschool, and middle childhood stages.

HSE.HS.31.3.a Summarize the connection between good nutrition and physical, intellectual, emotional, and social development.

HSE.HS.31.3.b Identify diet recommendations for infants, toddlers, preschoolers, and primary grade children.

HSE.HS.31.3.c Compare the nutritional value of breastmilk to the nutritional value of formula.

HSE.HS.31.3.d Explain specific nutrient roles in the body of a developing child, giving special attention to vitamins and minerals.

HSE.HS.31.3.e Examine the role of a caregiver in providing food from infancy through middle childhood.

HSE.HS.31.3.f Describe the challenges associated with children's diets and outline strategies for dealing with such problems (e.g., childhood allergies, childhood obesity, aversions, influence of media and screen time).

HSE.HS.31.4 Evaluate nutrition and wellness needs during adolescence.

HSE.HS.31.4.a Explain the growth and consequent nutritional needs of adolescence.

HSE.HS.31.4.b Describe how eating patterns in adolescents affect overall health (e.g., sleep quality, energy, mood, physical development).

HSE.HS.31.4.c Identify nutrition-related medical conditions that may occur during adolescence along with prevention/intervention strategies.

HSE.HS.31.4.d Explain the spectrum of body dissatisfaction, dieting, disordered eating, and eating disorders.

HSE.HS.31.4.e Explain the recommendations for physical activity during adolescence.

LIFESPAN NUTRITION & WELLNESS (cont.)

HSE.HS.31.5 Evaluate the difference between the recommendations for a typical adolescent versus an adolescent involved in vigorous physical activity.

HSE.HS.31.5.a Describe the role of each nutrient for peak performance of the physically active adolescent.

HSE.HS.31.5.b Differentiate nutrient needs based on type, frequency, intensity, and duration of exercise.

HSE.HS.31.5.c Summarize the recommendations for assessing and maintaining healthy hydration.

HSE.HS.31.5.d Evaluate pre- and post-workout diet plans and timing of meals and snack intake for the physically active adolescent.

HSE.HS.31.6.e Describe supplements and their use.

HSE.HS.31.6 Evaluate nutrition and wellness needs during adulthood and older adulthood.

HSE.HS.31.6.a Identify nutrient needs for adulthood and why they change over time.

HSE.HS.31.6.b Outline nutrition-related medical conditions that may occur during adulthood along with prevention/intervention strategies.

HSE.HS.31.6.c Identify strategies for weight management and the challenges of weight management during adulthood and older adulthood.

HSE.HS.31.6.d Examine the role of nutrition in fostering longevity and in reducing the risk of chronic diseases.

HSE.HS.31.6.e Explain the recommendations for physical activity during adulthood.

HSE.HS.31.7 Identify career options as they pertain to nutrition and wellness throughout the lifespan.

HSE.HS.31.7.a Identify a variety of careers related to nutrition and wellness through the lifespan (e.g., job shadowing, guest speakers, interview professionals, visit a professional or educational setting).

HSE.HS.31.7.b Summarize skills and knowledge necessary for a successful career in nutrition and wellness careers.

HSE.HS.31.7.c Identify professional and ethical considerations in various nutrition and wellness work settings.

FOOD SCIENCE

COURSE DESCRIPTION

This capstone course focuses on food science and the food science industry building on concepts from the introductory and intermediate courses. Topics of study include food science history and career opportunities, evaluation of the six essential nutrients, role of science and technology in food products, and food development, production, and marketing. Food safety will also be reinforced in this course through hands-on learning opportunities.

STANDARDS AND INDICATORS:

HSE.HS.19.1 Analyze the food science industry.

HSE.HS.19.1.a Explain the history of food science.

HSE.HS.19.1.b Identify career opportunities within the food science industry.

HSE.HS.19.1.c Compare and contrast food production companies and their products.

HSE.HS.19.1.d Analyze career opportunities matched to personal life skills, talents, career goals, and local industry trends within the food science industry.

HSE.HS.19.2 Demonstrate the recommended procedures and safe equipment use in the food science lab facility.

HSE.HS.19.2.a Demonstrate leadership, effective communication, and teamwork skills in the food science lab.

HSE.HS.19.2.b Demonstrate the safe and accurate use of measuring, preparation, heating, packaging, and storage equipment in the lab setting.

HSE.HS.19.2.c Utilize the scientific method.

HSE.HS.19.3 Identify and evaluate the basic principles of proper nutrition, including the identification and evaluation of the six essential nutrients needed for good health.

HSE.HS.19.3.a Identify the roles and properties of carbohydrates, fats, proteins, vitamins, minerals and water.

HSE.HS.19.3.b Analyze the effects of food science and technology on meeting nutritional needs.

HSE.HS.19.3.c Analyze how the scientific and technical advances in product development, food processing, storage, and distribution influence nutrition and wellness.

FOOD SCIENCE (cont.)

HSE.HS.19.4 Outline the fundamentals of food chemistry.

HSE.HS.19.4.a Define basic food chemistry principles (e.g., elements, compounds, heterogeneous and homogeneous mixtures, solutions, colloidal dispersions, emulsions, pH applications, catalysts, use of enzymes, use of leavening agents, thermodynamics).

HSE.HS.19.4.b Describe basic chemical reactions that happen during food preparation and their effect(s) on nutrition.

HSE.HS.19.4.c Differentiate between simple and complex carbohydrates and their uses in foods for impact on digestion, nutrition, and food preparation procedures.

HSE.HS.19.4.d Describe the functions of amino acids and proteins and their uses in foods for impact on digestion, nutrition, and food preparation procedures.

HSE.HS.19.4.e Relate the composition of fats and proteins to their functions in foods and their i mpact on digestion, nutrition, and food preparation procedures.

HSE.HS.19.4.f Identify the role of water in food production.

HSE.HS.19.5 Analyze the role of food safety and sanitation on microorganisms in food products.

HSE.HS.19.5.a Differentiate between parasites, bacteria, yeasts, molds, and viruses.

HSE.HS.19.5.b Identify microorganisms that cause foodborne illness in humans and how to control or eliminate them.

HSE.HS.19.5.c Analyze the effects of technological advances on selection, preparation, packaging, and storage of food.

HSE.HS.19.5.d Analyze state and federal laws and regulations governing food inspection standards.

HSE.HS.19.5.e Identify appropriate packaging for food safety and label requirements.

HSE.HS.19.5.f Demonstrate safe preparation/heating/storage methods on a variety of food products.

FOOD SCIENCE (cont.)

HSE.HS.19.6 Assess the biology and physics of food production.

HSE.HS.19.6.a Describe the structure of water in different states and its influence on a food product's viscosity/fluidity and water activity.

HSE.HS.19.6.b Explain the difference between smoke point, flash point, and fire point when dealing with oils in processing foods.

HSE.HS.19.6.c Classify the chemical reactions and physical changes that occur in a variety of cooking/preparation methods.

HSE.HS.19.6.d Identify the purpose of natural and artificial food additives.

HSE.HS.19.6.e Identify agencies involved in regulating food additives.

HSE.HS.19.5.f Describe properties of a desirable food preservative.

HSE.HS.19.7 Evaluate food products for appropriate production and marketing strategies.

HSE.HS.19.7.a Analyze various factors that affect food preferences in the marketing of food to a variety of populations.

HSE.HS.19.7.b Compare and contrast flavor, texture, aroma, and appearance of various foods.

HSE.HS.19.7.c Analyze the impact of food presentation methods and techniques on consumer appeal of food and products.

HSE.HS.19.7.d Analyze data when making development and marketing decisions.

HSE.HS.19.7.e Review food product cost and price recommendations for wholesale and retail sales.

FOUNDATIONS OF LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

COURSE DESCRIPTION

This introductory course focuses on the career options in law and public safety. The topics covered provide foundational knowledge of the five career fields within this career cluster: correction services, emergency and fire management services, law enforcement services, legal services, and security and protective services including exposure to careers and concepts across all career fields.

STANDARDS AND INDICATORS:

HSE.HS.15.1 Describe various career opportunities in law, public safety, corrections, and security.

HSE.HS.15.1.a Identify the career pathways in law, public safety, corrections, and security.

HSE.HS.15.1.b Explain the role of each career pathway in society.

HSE.HS.15.1.c Describe possible careers in each law, public safety, corrections, and security field (e.g., correction services, emergency and fire management services, law enforcement services, legal services, and security and protective services).

HSE.HS.15.1.d Compare and contrast various law, public safety, corrections, and security careers.

HSE.HS.15.1.e Identify personal traits and compare them with potential career opportunities.

HSE.HS.15.2 Analyze the qualities needed for employment in the law, public safety, corrections, and security fields.

HSE.HS.15.2.a Recall personal qualities and professional skills used in various workplaces.

HSE.HS.15.2.b Describe biases and personality traits that could influence service to others.

HSE.HS.15.2.c Distinguish between appropriate and inappropriate characteristics for a public safety career.

HSE.HS.15.2.d Describe the importance of service, professionalism, and personal qualities in law, public safety, corrections, and security.

FOUNDATIONS OF LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY (cont.)

HSE.HS.15.3 Analyze the role of the public safety agencies and occupations at the local, state, and federal levels.

HSE.HS.15.3.a Identify the origin and source of United States law.

HSE.HS.15.3.b Outline the structure and organization of the federal, state, and local government.

HSE.HS.15.3.c Identify public safety agencies and their role.

HSE.HS.15.3.d Explain public safety agencies and their relation to the public.

HSE.HS.15.4 Describe ethical and professional behavior while acknowledging diverse perspectives, backgrounds, and populations.

HSE.HS.15.4.a Explain the importance of integrity, professionalism, and confidentiality in the workplace.

HSE.HS.15.4.b Define ethical conduct.

HSE.HS.15.4.c Identify factors in making ethical decisions.

HSE.HS.15.4.d Identify the value and impact of diverse perspectives on ethical actions and decision-making.

INTRODUCTION TO CRIMINAL JUSTICE

COURSE DESCRIPTION

This intermediate course will provide an overview of the history, development, and philosophies for crime control building on concepts from the introductory course. Topics include an examination of the criminal justice system with an emphasis on the police, courts (prosecution and defense), and correctional agencies, the role of law enforcement within a democratic society, and exposure to careers related to criminal justice.

STANDARDS AND INDICATORS:

HSE.HS.28.1 Analyze the criminal justice system.

HSE.HS.28.1.a Identify the three areas of criminal justice.

HSE.HS.28.1.b Summarize the history and development of the modern criminal justice system.

HSE.HS.28.1.c Distinguish the relationship between individual rights and the rule of law.

HSE.HS.28.1.d Differentiate between the various roles within the criminal justice system.

HSE.HS.28.2 Analyze crime, criminal behavior, and criminal law.

HSE.HS.28.2.a Define crime, criminal behavior, and criminal law.

HSE.HS.28.2.b Identify theories of criminal behavior.

HSE.HS.28.2.c Recognize the effects that crime has on individuals, society, and laws.

HSE.HS.28.2.d Apply theories of crime causation to understand crime and law.

HSE.HS.28.3 Explain the role of law enforcement in criminal justice.

HSE.HS.28.3.a Identify and define law enforcement.

HSE.HS.28.3.b Describe the development of law enforcement.

HSE.HS.28.3.c Identify the responsibilities, authority, and roles of various law enforcement agencies.

HSE.HS.28.3.d Summarize the changing role of law enforcement and its impact on society.

INTRODUCTION TO CRIMINAL JUSTICE (cont.)

HSE.HS.28.4 Distinguish the role and process of the courts in criminal justice.

HSE.HS.28.4.a Describe the sequence of the court process.

HSE.HS.28.4.b Categorize each component and actor in the court process.

HSE.HS.28.4.c Differentiate between the juvenile and adult court systems.

HSE.HS.28.4.d Explain various sequences of court processes.

HSE.HS.28.5 Explain the role of corrections in the criminal justice field.

HSE.HS.28.5.a Compare and contrast jails and prisons.

HSE.HS.28.5.b Summarize probation, parole, and community corrections.

HSE.HS.28.5.c Summarize characteristics of those that work in corrections and their roles.

HSE.HS.28.5.d Analyze the impact of social constructs on the correctional setting.

INTRODUCTION TO CORRECTIONS

COURSE DESCRIPTION

This intermediate course focuses on the history, progression, and current state of corrections within the United States building on concepts from the introductory course. Topics covered include corrections within the American criminal justice system, the historical evolution of corrections within the United States, the organization, culture of correctional institutions, and the progress and future of corrections.

STANDARDS AND INDICATORS:

HSE.HS.36.1 Explain the history of punishment and corrections in the modern era.

HSE.HS.36.1.a Define crime, punishment, and corrections.

HSE.HS.36.1.b Describe the various approaches and movements in corrections over time.

HSE.HS.36.1.c Relate societal changes over time with various movements/eras in corrections.

HSE.HS.36.2 Analyze the relationship between parole, probation, jail, and prison within the correctional system in the United States.

HSE.HS.36.2.a Define parole and probation.

HSE.HS.36.2.b Compare and contrast between the roles of jails and prisons in society.

HSE.HS.36.2.c Differentiate between probation and parole.

HSE.HS.36.2.d Analyze the strengths and weaknesses of parole, probation, jail, and prison.

HSE.HS.36.3 Analyze the correctional experience from diverse perspectives.

HSE.HS.36.3.a Identify the various roles and perspectives found in the American correctional system.

HSE.HS.36.3.b Identify various prison cultures and subcultures.

HSE.HS.36.3.c Explain the impact of race, gender, and roles in the correctional system.

HSE.HS.36.3.d Compare the experiences of correctional clients and correctional officers.

INTRODUCTION TO CORRECTIONS (cont.)

HSE.HS.36.4 Evaluate the organization and processes of correctional institutions in the United States.

HSE.HS.36.4.a Summarize the general organization of a correctional agency.

HSE.HS.36.4.b Summarize the general intake and management processes of correctional institutions.

HSE.HS.36.4.c Differentiate between various organization and management approaches used in corrections.

HSE.HS.36.5 Evaluate the relationship between trends in corrections and social problems.

HSE.HS.36.5.a Identify the impact of society and law on corrections in the United States.

HSE.HS.36.5.b Describe modern changes and trends in the correctional field.

HSE.HS.36.5.c Assess the impact and response of corrections in addressing societal problems.

HSE.HS.36.6 Describe the progress and trends of corrections in the United States.

HSE.HS.36.6.a Identify the modern trends of corrections.

HSE.HS.36.6.b Identify the changes over time in the American correctional system.

HSE.HS.36.6.c Compare new approaches to corrections and punishment including rehabilitation and education.

HSE.HS.36.6.d Explain the impact of new approaches to corrections on the future.

COURTS AND JUDICIAL PROCESSES

COURSE DESCRIPTION

This capstone course examines courts and judicial processes in the United States building on concepts from the introductory and intermediate courses. The primary focus is on police and correctional due process, application of the law, and civil liability concerns. Topics include search and seizure, arrest and interrogation, revocation and probation and parole, probable cause and other timely issues.

STANDARDS AND INDICATORS:

HSE.HS.7.1 Analyze the history and structure of courts in the United States.

- HSE.HS.7.1.a Describe the purpose of the courts.
- HSE.HS.7.1.b Explain the functions of the court.
- HSE.HS.7.1.c Describe the evolution of the court system.
- HSE.HS.7.1.d Summarize the role of courts within the criminal justice system.
- HSE.HS.7.1.e Differentiate between state courts, federal courts, and specialized courts.

HSE.HS.7.2 Differentiate between the various types of law.

- HSE.HS.7.2.a Define public law and civil law.
- HSE.HS.7.2.b Compare and contrast criminal law, procedural law, and civil law.
- HSE.HS.7.2.c Summarize the importance of law in society.

HSE.HS.7.3 Analyze the roles and responsibilities of individuals within the court system.

- HSE.HS.7.3.a Identify the roles within the court system (e.g., judge, prosecuting attorney, defense attorney).
- HSE.HS.7.3.b Describe how technology has changed the court system.
- HSE.HS.7.3.c Describe the responsibilities of a judge.
- HSE.HS.7.3.d Explain the roles of prosecuting attorney and defense attorney.
- HSE.HS.7.3.e Summarize the roles and rights of the defendants, victims, witnesses, and others involved in the case (e.g., advocates, experts).

COURTS AND JUDICIAL PROCESSES (cont.)

HSE.HS.7.4 Outline the steps in the court process.

HSE.HS.7.4.a Summarize the arrest process.

HSE.HS.7.4.b Describe pre-trial procedures.

HSE.HS.7.4.c Compare and contrast the types of pleas.

HSE.HS.7.4.d Describe plea bargaining, sentencing, and appeals.

HSE.HS.7.4.e Explain the jury selection process.

HSE.HS.7.4.f Outline the trial process.

HSE.HS.7.5 Analyze how current issues affect the courts and the court process.

HSE.HS.7.5.a Identify the impact of historical discrimination on courts.

HSE.HS.7.5.b Analyze how gender, race, and income affect court outcomes.

HSE.HS.7.5.c Evaluate wrongful convictions and exonerations.

POLICE AND SOCIETY

COURSE DESCRIPTION

This capstone course will examine the relationship between the police and the community building on concepts from the introductory and intermediate courses. Topics covered include the history, practices, and issues related to the law enforcement function in our society and an overview of police functions and responsibilities at the local, state, and federal levels. Police operations will be examined relative to effectiveness in crime control, delivery of services, and maintenance of order.

STANDARDS AND INDICATORS:

HSE.HS.32.1 Explain the history of police and policing in American society.

HSE.HS.32.1.a Identify events that have impacted the development of policing in America.

HSE.HS.32.1.b Describe major factors that have shaped modern policing.

HSE.HS.32.1.c Describe the effect of political influence on policing.

HSE.HS.32.1.d. Summarize the police professionalism movement.

HSE.HS.32.2 Outline the general structure and organization of police agencies.

HSE.HS.32.2.a Differentiate between local, state, and federal police agencies.

HSE.HS.32.2.b Explain the requirements for the selection process for police officers.

HSE.HS.32.2.c Discuss qualities of an ethical, professional, and respected police officer.

HSE.HS.32.2.d Explain the hierarchy and promotion process of police.

HSE.HS.32.2.e Describe the responsibilities of a police officer.

HSE.HS.32.2.f Describe the management of police agencies.

POLICE AND SOCIETY (cont.)

HSE.HS.32.3 Analyze the impact of serving a multicultural society.

HSE.HS.32.3.a Describe the implications of working in a multicultural society and the challenges facing law enforcement.

HSE.HS.32.3.b Examine patterns of interaction between police and the diverse American population.

HSE.HS.32.3.c Analyze the issues of gender and race in hiring within police agencies.

HSE.HS.32.3.d Identify current crime trends and how crime is policed.

HSE.HS.32.3.e Analyze the effects of social trends and police reforms.

HSE.HS.32.4 Evaluate the importance of ethics, professionalism, discretion, and integrity within policing.

HSE.HS.32.4.a Define ethics, professionalism, discretion, and integrity within policing.

HSE.HS.32.4.b Summarize the impact of ethics, professionalism, discretion, and integrity within policing.

HSE.HS.32.4.c Analyze ethical decision making in American policing.

HSE.HS.32.5 Explain the impact of politics, police cultures, and police subcultures on law enforcement in the United States.

HSE.HS.32.5.a Identify police culture and subcultures in law enforcement.

HSE.HS.32.5.b Describe the characteristics of the police personality.

HSE.HS.32.5.c Summarize the "code of silence" and its impact on police and society.

HSE.HS.32.5.d Describe the current impact of special interest groups and politics on policing.

FAMILIES IN CRISIS

COURSE DESCRIPTION

This intermediate course will explore the impact of crisis situations on families building on concepts from the introductory course(s). Topics include stress, changes in the family life cycle, grief and loss, and mental health disorders. An emphasis will be placed on services available to support families while developing foundational knowledge and skills.

STANDARDS AND INDICATORS:

HSE.HS.13.1 Analyze non-therapeutic helper careers which serve individuals, families, and communities.

HSE.HS.13.1.a Outline the six types of helpers (professional helpers, paraprofessional helpers, helping as a part of their work, volunteer helpers, peer helpers, and informal helpers).

HSE.HS.13.1.b Describe the role of each of the six types of helpers in the process of supporting families in crisis situations.

HSE.HS.13.2 Analyze factors that influence crisis in a family.

HSE.HS.13.2.a List characteristics of healthy and unhealthy families and their effect on society.

HSE.HS.13.2.b Compare and contrast a variety of diverse family structures.

HSE.HS.13.2.c Describe how families help meet the needs of individuals using Maslow's Hierarchy of Needs.

HSE.HS.13.2.d Explain the importance of healthy communication and conflict resolution in a family.

HSE.HS.13.2.e Compare and contrast financial, physical, social, emotional, cultural, and spiritual issues and the role of stress in families.

HSE.HS.13.2.f Define crisis and differentiate a crisis situation from a stressful situation.

HSE.HS.13.2.g Identity common crisis situations families face (e.g., mental illness, abuse, addiction, grief, suicide, job loss, homelessness).

FAMILIES IN CRISIS (cont.)

HSE.HS.13.3 Evaluate societal views of mental health and common mental health disorders.

HSE.HS.13.3.a Define stigma and explain its effects on those with mental illness.

HSE.HS.13.3.b Identify ways to minimize stigma surrounding mental illness and seeking help for mental health problems.

HSE.HS.13.3.c Identify and analyze common risk factors for developing mental disorders (genetic, environmental).

HSE.HS.13.3.d Analyze the process of diagnosing mental illness.

HSE.HS.13.3.e Explain the effects mental illness and suicide has on the family.

HSE.HS.13.3.f Assess the signs and symptoms of a potential suicidal individual and steps that should be taken to seek help.

HSE.HS.13.3.g Identify community resources to help families facing mental health crises.

HSE.HS.13.4 Evaluate the effects of abuse on a family.

HSE.HS.13.4.a Identify types of abuse, causes, and common signs and symptoms in each stage of the family life cycle.

HSE.HS.13.4.b Analyze the roles and their characteristics in an abuse situation (bystander, abuser, victim/survivor).

HSE.HS.13.4.c Identify mandatory reporting laws and processes in Nebraska and resources available to help families.

HSE.HS.13.4.d Explain Adverse Childhood Experiences (ACEs) and their potential effects.

HSE.HS.13.4.e Compare and contrast healthy and unhealthy relationships.

HSE.HS.13.4.f Explain the stages of the Cycle of Abuse considering the barriers surrounding generational abuse.

FAMILIES IN CRISIS (cont.)

HSE.HS.13.5 Evaluate the effects of addiction on the family unit.

HSE.HS.13.5.a Define addiction and explore the risk factors associated with developing an addiction (genetic, environmental).

HSE.HS.13.5.b Analyze the science of physical and psychological addiction and how they are connected.

HSE.HS.13.5.c Assess community resources, treatment, and recovery methods of addiction.

HSE.HS.13.5.d Explain the connection (comorbidity) between mental illness and addiction.

HSE.HS.13.5.e Analyze the effects of multiple family members living with addiction at the same time.

HSE.HS.13.6 Analyze the process of grieving.

HSE.HS.13.6.a Define grief and explain that grief can occur with a variety of losses (e.g., loss of a friendship or pet, moving, loss of experience).

HSE.HS.13.6.b Compare and contrast a variety of theories of grief (Five Stages, Tonkin's Model, Four Tasks of Grieving, Six Rs, Dual Process Model, Reconstruction of Meaning).

HSE.HS.13.6.c Analyze family relationships in the grieving process.

HSE.HS.13.6.d Compare and contrast healthy and unhealthy coping mechanisms for dealing with grief.

HSE.HS.13.6.e Identify community resources to help families facing grief.

HSE.HS.13.7 Analyze methods of overcoming crisis.

HSE.HS.13.7.a Describe the qualities of a resilient individual.

HSE.HS.13.7.b Define mindfulness and techniques used to be mindful in everyday life.

HSE.HS.13.7.c Explain the importance of mindfulness and self-awareness in overcoming crisis.

HSE.HS.13.7.d Explain the importance of self-care and list strategies for implementing self-care.

HSE.HS.13.7.e Describe the importance of growth mindset in regards to neuroplasticity.

HSE.HS.13.7.f Identify common mental distortions (filtering, overgeneralizing, catastrophizing, personalization).

FOUNDATIONS OF LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY

COURSE DESCRIPTION

This introductory course focuses on the career options in law and public safety. The topics covered provide foundational knowledge of the five career fields within this career cluster: correction services, emergency and fire management services, law enforcement services, legal services, and security and protective services including exposure to careers and concepts across all career fields.

STANDARDS AND INDICATORS:

HSE.HS.15.1 Describe various career opportunities in law, public safety, corrections, and security.

HSE.HS.15.1.a Identify the career pathways in law, public safety, corrections, and security.

HSE.HS.15.1.b Explain the role of each career pathway in society.

HSE.HS.15.1.c Describe possible careers in each law, public safety, corrections, and security field (e.g., correction services, emergency and fire management services, law enforcement services, legal services, and security and protective services).

HSE.HS.15.1.d Compare and contrast various law, public safety, corrections, and security careers.

HSE.HS.15.1.e Identify personal traits and compare them with potential career opportunities.

HSE.HS.15.2 Analyze the qualities needed for employment in the law, public safety, corrections, and security fields.

HSE.HS.15.2.a Recall personal qualities and professional skills used in various workplaces.

HSE.HS.15.2.b Describe biases and personality traits that could influence service to others.

HSE.HS.15.2.c Distinguish between appropriate and inappropriate characteristics for a public safety career.

HSE.HS.15.2.d Describe the importance of service, professionalism, and personal qualities in law, public safety, corrections, and security.

FOUNDATIONS OF LAW, PUBLIC SAFETY, CORRECTIONS, AND SECURITY (cont.)

HSE.HS.15.3 Analyze the role of the public safety agencies and occupations at the local, state, and federal levels.

HSE.HS.15.3.a Identify the origin and source of United States law.

HSE.HS.15.3.b Outline the structure and organization of the federal, state, and local government.

HSE.HS.15.3.c Identify public safety agencies and their role.

HSE.HS.15.3.d Explain public safety agencies and their relation to the public.

HSE.HS.15.4 Describe ethical and professional behavior while acknowledging diverse perspectives, backgrounds, and populations.

HSE.HS.15.4.a Explain the importance of integrity, professionalism, and confidentiality in the workplace.

HSE.HS.15.4.b Define ethical conduct.

HSE.HS.15.4.c Identify factors in making ethical decisions.

HSE.HS.15.4.d Identify the value and impact of diverse perspectives on ethical actions and decision-making.

EMERGENCY AND FIRE MANAGEMENT

COURSE DESCRIPTION

This intermediate course focuses on the skills needed within fire and emergency services building on concepts from the introductory course. The topics covered include careers within the emergency response field, skills needed to take control over emergency situations, essential leadership qualities, and safety protocols. The technical skills and responsibilities of fire and emergency services professionals will be demonstrated and explored.

STANDARDS AND INDICATORS:

HSE.HS.8.1 Analyze the characteristics of different careers within the emergency response field.

HSE.HS.8.1.a Identify emergency response employee qualifications, training, and certification requirements.

HSE.HS.8.1.b Describe the roles and responsibilities of emergency response agencies.

HSE.HS.8.1.c Identify the responsibilities, requirements, and advancement opportunities in emergency response careers.

HSE.HS.8.1.d Summarize the laws, regulations, and organizational protocol that define the guideline governing emergency agency and service.

HSE.HS.8.2 Analyze the processes by which emergency personnel exert command and control.

HSE.HS.8.2.a Identify the core set of concepts, principles, terminology, and technologies of emergency response management.

HSE.HS.8.2.b Describe the principles and responsibilities of the Incident Command System (ICS) and the National Incident Management System (NIMS).

HSE.HS.8.2.c Explain multiagency coordination, unified command, training, identification and management of resources, qualification and certification, and the collection, tracking, evaluation, and dissemination of information.

HSE.HS.8.2.d Examine the importance of an organized Command and Control System to provide for interoperability, efficiency, and effectiveness.

EMERGENCY AND FIRE MANAGEMENT (cont.)

HSE.HS.8.3 Analyze leadership qualities, team concepts, and personal integrity for emergency response personnel.

HSE.HS.8.3.a Identify the characteristics of successful teams (e.g., leadership, cooperation, collaboration, effective decision-making skills).

HSE.HS.8.3.b Describe emergency response techniques and methods of active listening.

HSE.HS.8.3.c Identify a variety of effective methods of communication.

HSE.HS.8.3.d Summarize effective professional approaches to the Health Insurance Portability and Accountability Act (HIPAA) regulations and agency guidelines regarding public and media communications.

HSE.HS.8.4 Apply safety procedures and protocols associated with local, state, and federal regulations within fire and emergency services.

HSE.HS.8.4.a Describe the basic elements of safety and survival for emergency response personnel.

HSE.HS.8.4.b Explain how to establish situational awareness, identify hazards, and assess personal, team, or environmental risks.

HSE.HS.8.4.c Demonstrate the use of appropriate personal protective equipment (PPE) required for emergency services duties.

HSE.HS.8.4.d Describe the function of emergency vehicles, use of medical and communication equipment, and the necessity of maintaining inventory.

HSE.HS.8.4.e Identify various communication methods used by local, state, and federal agencies.

HSE.HS.8.4.f Summarize how to respond to emergency situations with interagency communication.

EMERGENCY AND FIRE MANAGEMENT (cont.)

HSE.HS.8.5 Analyze fire services occupations and responsibilities.

HSE.HS.8.5.a Identify the history, organization, and operation of fire services.

HSE.HS.8.5.b Describe the skills and knowledge necessary for an entry-level firefighter.

HSE.HS.8.5.c Outline standard operating procedures for a fire service agency.

HSE.HS.8.5.d Explain the fundamentals and scientific principles of fire behavior, combustible materials, extinguishing agents, hazardous and toxic materials, forms of energy, and fire prevention/suppression techniques for all types of fires and conditions.

HSE.HS.8.5.e Explain the operation of fire protection equipment and systems.

HSE.HS.8.6 Demonstrate the immediate basic life support and interim medical care for a sick, injured, or compromised person.

HSE.HS.8.6.a Apply medical terminology and related knowledge of anatomy, physiology, diseases, diagnoses, pharmacology, therapeutics, and common abbreviations necessary for emergency medical services.

HSE.HS.8.6.b Describe the common acronyms used in fire and emergency services.

HSE.HS.8.6.c Explain the protocols in emergency management response.

HSE.HS.8.6.d Assess the nature and extent of an illness or injury to establish and prioritize medical response.

HSE.HS.8.6.e Apply technical skills and equipment required in emergency response situations (e.g., airway, oxygen, and ventilation procedures, suction, bleeding control, immobilization techniques, wound management).

NEBRASKA CAREER AND TECHNICAL EDUCATION



CTE®
Learning that works for Nebraska

NEBRASKA DEPARTMENT OF EDUCATION

SKILLED AND TECHNICAL SCIENCES

PROGRAM OF STUDY STANDARDS

ARCHITECTURE & CONSTRUCTION

ENERGY & ENGINEERING

MANUFACTURING

TRANSPORTATION, DISTRIBUTION, & LOGISTICS

NEBRASKA CAREER AND TECHNICAL EDUCATION STATE MODEL PROGRAMS OF STUDY

CAREER FIELD OVERVIEW

The Skilled and Technical Sciences Career Field Area provides opportunities for students to deepen their understanding of topics in areas such as architectural and design drafting, construction, electricity/electronics, home maintenance, welding, manufacturing, engineering, energy, technical education, and transportation, distribution, and logistics.

PROGRAMS OF STUDY

Programs of Study are the primary delivery model for Career and Technical Education (CTE) in Nebraska. They include a sequence of courses which progresses in specificity and rigor and are updated regularly to align with Nebraska's workforce needs and economic development priorities. This document includes the programs of study and course-based standards for the Skilled and Technical Sciences career field. These state model programs of study were developed to:

- Assist secondary schools in creating meaningful sequences of courses that adequately prepare individuals for seamless transitions to postsecondary education and careers eliminating duplication of coursework;
- Assist students in identifying appropriate courses for high school and postsecondary education that lead to their chosen career;
- Encourage collaboration between secondary and postsecondary education through curricular alignment;
- Offer opportunities for high-quality workplace experiences aligned to students' career interests;
- Promote the advancement of early postsecondary opportunities (including dual-credit courses) for all students; and
- Support postsecondary education options for students to further prepare them for successful transitions to their future careers.

Nebraska's programs of study are organized around Nebraska's CTE Model, which provides a way for students to explore the diversity of career options available to them.

NEBRASKA CAREER AND TECHNICAL EDUCATION MODEL

1 CORE ACADEMICS AND CAREER READINESS

At the center of the NCE Model is the expectation for all students to develop a solid academic core. The next ring identifies specific career readiness standards and practices that prepare students for success in postsecondary education as well as entrepreneurship/employment.

2 CAREER FIELDS

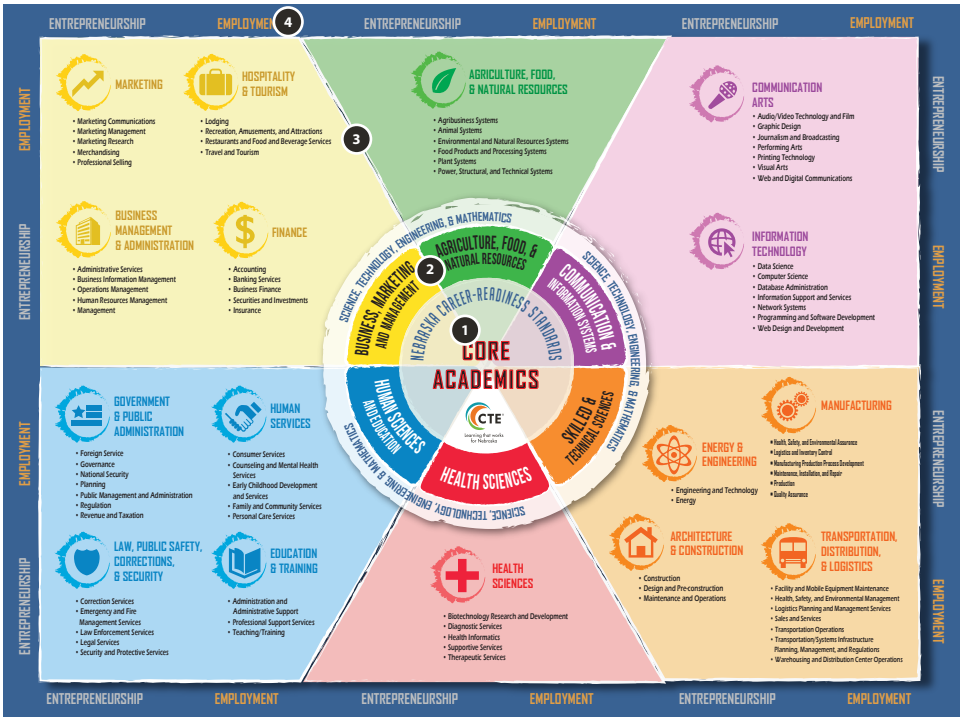
The six career fields represent broad sectors of the job market on which students may choose to focus.

3 CAREER CLUSTERS

Each career field is composed of career clusters radiating out from it. The clusters are more specific segments of the labor market. Each cluster is a grouping of careers that focus on similar subjects or similar skills. A basic understanding and exploration of each of the clusters will provide students with a solid foundation for career decision-making to conceptualize the entire world of work.

4 EMPLOYABILITY AND ENTREPRENEURSHIP

Career education provides the opportunity to gain the knowledge and skills for both employment and entrepreneurship. The reality for Nebraska and the United States is that entrepreneurship will help ensure economic growth and vitality. By infusing entrepreneurship competencies, career education is helping create the next generation of America's innovators and entrepreneurs.



The model is a visual map of "career fields" and "career clusters/pathways" and organizes the 16 National Career Clusters into six broad sectors of entrepreneurship and employment:

- Agriculture, Food and Natural Resources
- Business, Marketing and Management
- Communication and Information Systems
- Health Sciences
- Human Sciences and Education
- Skilled and Technical Sciences

These fields break down into more specific Career Clusters, Pathways and Occupational Specialties. The model provides a way for:

- Students to explore the diversity of career options available to them.
- Students to begin to prepare for their career with plans for secondary and post-secondary education.
- Schools to organize curriculum into Programs of Study that prepare students for opportunities in Nebraska's economy.

COURSE SEQUENCING

The courses within the State Model Program of Study are intended to be offered sequentially, to allow learners to build upon foundational knowledge and skills learned in introductory and intermediate courses and applied in more advanced capstone coursework. Non-duplicative sequences of courses ensure students transition to postsecondary education without duplication of classes and content. CTE enrollment data is collected at the course level. Students who participate and concentrate in CTE generally have more positive outcomes such as higher graduation rates along with postsecondary success.

Introductory Courses

Introductory courses set the foundation for a program of study by introducing students to broad foundational knowledge relative to an occupational area and career field.

Intermediate Courses

Intermediate courses build on the foundational knowledge of Introductory courses to further develop the academic, technical, and career readiness skills within a particular career field and occupational area.

Capstone Courses

Capstone courses are occupationally specific and further develop the necessary and required academic, technical, and career readiness skills needed for seamless transitions to postsecondary education and employment. Capstone courses often provide opportunities for students to earn postsecondary credit.

Levels of Participation

CTE Participant

A student who has earned one or more credits in any career and technical education program area.

CTE Concentrator

A secondary student who, in grades 9 through 12, has earned credit in at least two courses in a single career cluster program at the intermediate or capstone level.

State Model Programs of Study are coordinated, nonduplicative sequences of academic and technical content at the secondary and postsecondary levels that incorporate challenging State academic standards, address both academic and technical knowledge and skills, including Nebraska's Career Readiness Skills, are aligned with the needs of industries in Nebraska's economy, progress in specificity, have multiple entry and exit points that incorporate credentialing, and culminate in the attainment of a recognized postsecondary credential.

COURSE-BASED STANDARDS

Individual CTE courses, which make up the sequence of courses for Programs of Study, include content area standards and indicators to provide a framework for quality teaching and learning. While not required by state law, districts are encouraged to adopt these State Model Programs of Study and their related course-based standards. CTE State Model Programs of Study and course-based standards are revised on a five-year cycle to remain responsive to the rapid advances and needs of business and industry, help students explore a variety of postsecondary options and corresponding entrance requirements to help identify their next steps, and to align to changes in postsecondary programs.

Standards

At the highest level of generality, content area standards include a set of broad, overarching content-based statements that describe the basic cognitive, affective, or psychomotor expectations of students. They reflect long-term goals for learning.

Indicators

Under each standard are indicators, which further describe what a student must know and be able to do to meet the standard. Indicators are performance-based statements that provide educators with a clear understanding of the expected level of student learning and guidance. Indicators provide guidance for an assessment of student learning.

EXPANDED LEARNING OPPORTUNITIES

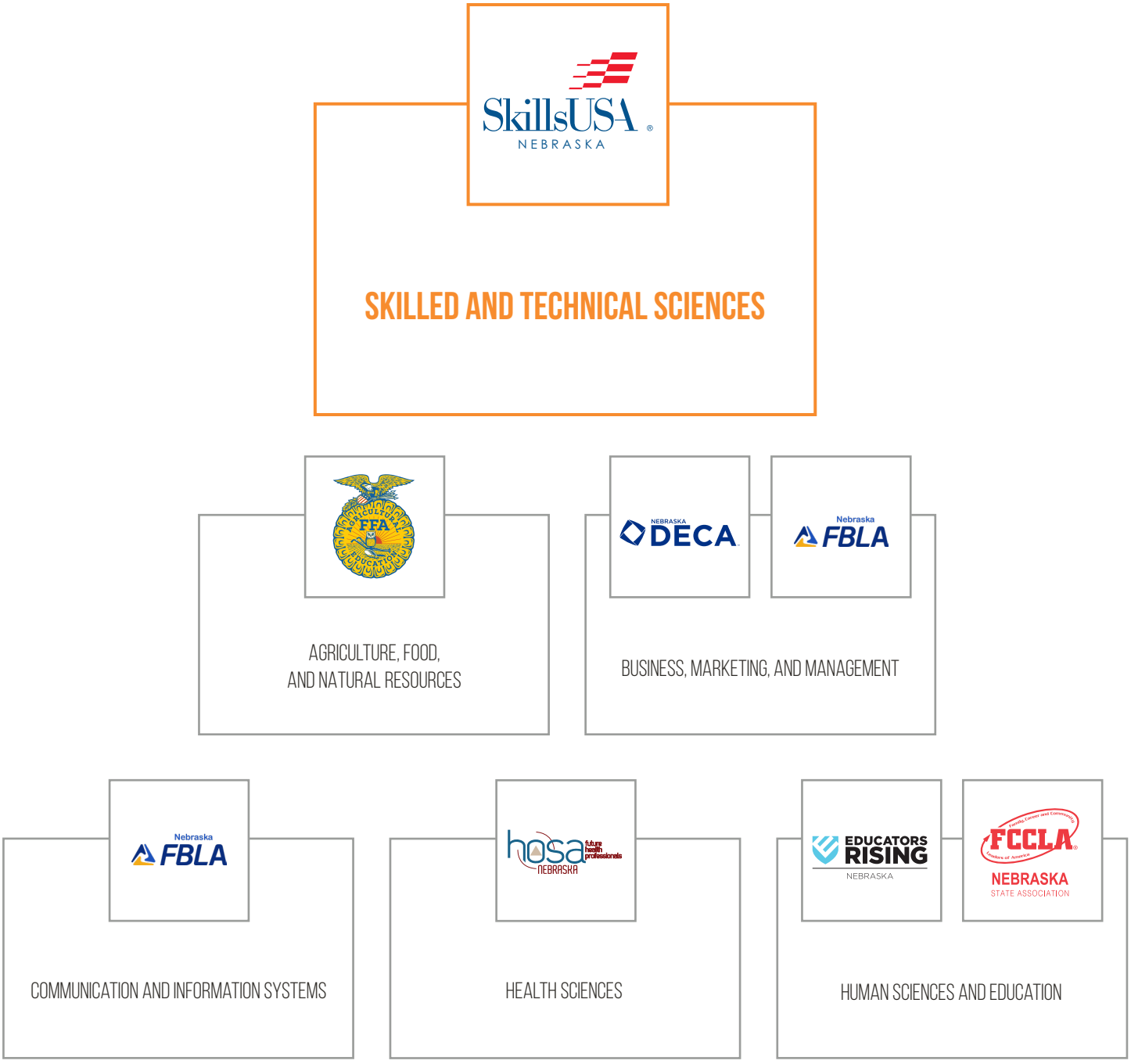
Expanded learning opportunities build on, support, and enhance learning within and outside of regular school programming. They are a critical component of Nebraska's educational landscape and should be intentionally supported to further develop students' college and career readiness. To signal aligned expanded learning opportunities, each Program of Study identifies additional areas where students may desire to personalize their program and take additional coursework or work-based learning that aligns with their interests. These expanded learning opportunities are not considered part of a Program of Study nor are they required, but rather a meaningful opportunity for students to continue to learn after completing the Program of Study sequence of courses within the context of their career interests. Along with aligned coursework, two prominent expanded learning opportunities include participating in Work-based Learning or a Career and Technical Student Organization.

Work-Based Learning

Work-Based Learning (WBL) connects learners with employers to prepare them for success in an everchanging workplace. WBL is a planned program of meaningful experiences related to the career interests of learners that enables them to acquire knowledge and skills in a real or simulated work setting. It requires strong partnerships between schools, colleges, and local employers. WBL is learning through work, not simply learning about work. Expanding high-quality WBL opportunities for students is one of Nebraska's CTE strategic priorities and is a program quality accountability indicator. Nebraska CTE affirms WBL as a critical component of career development. Throughout the State Model Programs of Study, courses where WBL is embedded into the class is noted in the course title (e.g., "Architecture & Construction Work-Based Learning Experience"). It is also signaled as an expanded learning opportunity across all programs of study.

Career And Technical Student Organizations

Career and Technical Student Organizations (CTSOs) are an extension of classroom instruction—applying classroom learning to real-world experiences. CTSOs provide opportunities for all students to develop career readiness skills through activities, competitions, and community service. Nebraska recognizes seven CTSOs aligned with the state's Programs of Study and career field areas. These include:



CAREER READINESS STANDARDS

Embedded into the State Model Programs of Study and courses are the Nebraska Career Readiness standards. These standards rest on important "practices and proficiencies" with long-standing importance in career education. These standards and related practices are not limited to formal CTE programs nor to the middle school or high school level. Rather, these standards and practices should be used over and over again with increasing complexity and relevance by students as they progress through their educational pathway. The standards themselves do not dictate curriculum, pedagogy or delivery of content. Schools and colleges may handle the teaching and assessing of these standards in many different ways.

THE CAREER READY INDIVIDUAL...



1. Applies appropriate academic and technical skills



2. Communicates effectively and appropriately



3. Contributes to employer and community success



4. Makes sense of problems and perseveres in solving them



5. Uses critical thinking



6. Demonstrates innovation and creativity



7. Models ethical leadership and effective management



8. Works productively in teams and demonstrates cultural competency



9. Utilizes technology



10. Manages personal career development



11. Attends to personal and financial well-being

SKILLED AND TECHNICAL SCIENCES
PROGRAMS OF STUDY



ARCHITECTURE AND CONSTRUCTION CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
ARCHITECTURAL DESIGN (Pages 10–17)	100100 - Introduction to Skilled and Technical Sciences	100140 - Architectural Design 1, OR 090109 - Home Design and Interiors (FCS)	100141 - Architectural Design 2	320703 - Architecture & Construction Work-Based Learning Experience
CONSTRUCTION (Pages 18–26)	100100 - Introduction to Skilled and Technical Sciences, OR 100405 - Residential Electrical Wiring	100110 - Construction Trades 1, OR 016000 - Power, Structural, & Technology Systems Fundamentals (AFNR)	100120 - Construction Trades 2	320703 - Architecture & Construction Work-Based Learning Experience



ENERGY AND ENGINEERING CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
ENERGY (Pages 27–35)	100406 - Fundamentals of Energy	100408 - Sustainable Energy	100407 - Physics & Mathematics of Energy	320707 - Energy & Engineering Work-Based Learning Experience
ENGINEERING (Pages 36–47)	100100 - Introduction to Skilled and Technical Sciences, OR 103191- Engineering Design & Systems Thinking, OR 100160 - PLTW Principles of Engineering, OR 100161 - PLTW Introduction to Engineering Design	103192 - Engineering Problem Solving, OR 103194 - Robotics, OR 100164 - PLTW Aerospace Engineering, OR 100162 - PLTW Civil Engineering & Architecture, OR 101901 - PLTW Computer Integrated Manufacturing, OR 100403 - PLTW Digital Electronics	103193 - Systems Engineering & Project Management, OR 103195 - Advanced Robotics, OR 100163 - PLTW Engineering Design & Development	320707 - Energy & Engineering Work-Based Learning Experience

MANUFACTURING CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
MANUFACTURING (Pages 48–84)	100100 - Introduction to Skilled and Technical Sciences, OR 100130 - Drafting & Design	101920 - Manufacturing Processes - Woods, OR 101400 - Manufacturing Processes - Metals, OR 101950 - Manufacturing Processes - Plastics, OR 100401 - Introduction to Electronics	101921 - Manufacturing Production - Woods, OR 101401 - Manufacturing Production - Metals, OR 101951 - Manufacturing Production - Plastics, OR 101900 - Introduction to Mechatronics, OR 100402 - Advanced Electronics, OR	320715 - Manufacturing Work-Based Learning Experience 101922 - Advanced Manufacturing & Fabrication – Woods, OR 101402 - Advanced Manufacturing & Fabrication – Metals, OR 101952 - Advanced Manufacturing & Fabrication – Plastics
WELDING (Pages 85–95)	100100 - Introduction to Skilled and Technical Sciences	101930 - Welding 1, OR 016004 - Welding (AFNR)	101940 - Welding 2, OR 016005 - Metals & Fabrication (AFNR)	101941 - Welding 3, OR 320715 - Manufacturing/ Welding Work-Based Learning Experience

TRANSPORTATION, DISTRIBUTION, AND LOGISTICS CLUSTER

Program of Study Name	Introductory Course	Intermediate Course	Capstone Course	Expanded Learning Opportunity
TRANSPORTATION, DISTRIBUTION, & LOGISTICS - SUPPLY CHAIN (Pages 96–100)	101601 - Introduction to Transportation, Distribution & Logistics	100610 - Distribution & Logistics	101650 - Business Logistics	320717- Transportation, Distribution & Logistics Work-Based Learning Experience
TRANSPORTATION, DISTRIBUTION, & LOGISTICS - TECHNICIAN (Pages 101–116)	100100 - Introduction to Skilled and Technical Sciences, OR 101651 - Power Equipment, OR 016003 - Power, Structural, and Technical Systems (AFNR)	101600 - Transportation 1	101620 - Transportation 2, OR 101640 - Collision Repair	101630 - Transportation 3, OR 320717 - Transportation, Distribution, & Logistics Work-Based Learning Experience

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES

COURSE DESCRIPTION

This introductory course provides the skills and technical knowledge for a beginning student in areas of industry, safety, material, equipment, and process understanding. This entry level course helps students gain a foundation in all areas of Skilled and Technical Sciences including Architecture and Construction; Energy and Engineering; Manufacturing; and Transportation, Distribution, and Logistics.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.19.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.19.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.19.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.19.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.

STS.HS.19.1.d Employ the safe application of tools and machines.

STS.HS.19.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.19.1.f Demonstrate proper handling and storing of materials.

STS.HS.19.2 Identify career opportunities in Skilled and Technical Sciences areas.

STS.HS.19.2.a Identify responsibilities and characteristics of professionals in a skilled and technical sciences industry.

STS.HS.19.2.b Describe work behaviors needed to be employable in a skilled and technical sciences industry.

STS.HS.19.2.c Identify the training, education, certification, and licensing requirements for various careers in a skilled and technical sciences industry.

STS.HS.19.2.d Identify high wage, high demand, and high skill careers in skilled and technical sciences.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES (cont.)

STS.HS.19.3 Apply appropriate academic and technical skills to produce a product.

STS.HS.19.3.a Employ project-related math operations and formulas.

STS.HS.19.3.b Employ effective verbal, written, and/or visual communication skills.

STS.HS.19.3.c Define course content vocabulary.

STS.HS.19.3.d Conduct the accurate use of measurement tools.

STS.HS.19.4 Identify the materials, tools, machines, and equipment required to produce a product.

STS.HS.19.4.a Identify types of materials to be used for various products.

STS.HS.19.4.b Identify types of fasteners for various products.

STS.HS.19.4.c Identify types of adhesives for various products.

STS.HS.19.4.d Identify types of finishes for various products.

STS.HS.19.4.e Identify the correct tools, machines, and equipment appropriate for a specific operation or process.

STS.HS.19.5 Produce a product(s).

STS.HS.19.5.a Interpret working drawings of a product to be produced.

STS.HS.19.5.b Select the proper materials adhesives, fasteners and finishes for a product.

STS.HS.19.5.c Demonstrate the proper tool, machine, or equipment selection and usage for each corresponding operation needed to produce a product.

STS.HS.19.5.d Execute a plan of procedure.

ARCHITECTURAL DESIGN 1

COURSE DESCRIPTION

This intermediate course provides students with an introduction into Computer-Aided-Drafting (CAD) and the foundation for architectural design. Architectural styles, design and construction procedures as well as knowledge of working drawings needed to build a structure will be included.

Target Grades: 10-12.

STANDARDS AND INDICATORS:

STS.HS.6.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.6.1.a	Employ eye protection in compliance with Neb. Rev. Statute 79-715.
STS.HS.6.1.b	Identify office safety hazards.
STS.HS.6.1.c	Employ appropriate Personal Protective Equipment (PPE).
STS.HS.6.1.d	Employ proper ergonomics.
STS.HS.6.1.e	Complete applicable safety assessment with 100% accuracy.

STS.HS.6.2 Identify architectural career opportunities.

STS.HS.6.2.a	Identify the primary duties and attributes of an architect or architectural technician.
STS.HS.6.2.b	Describe the various careers within the architectural profession (i.e., drafting technician, designer, project manager, architect, landscape architect, and interior designer) and the training and certification needed for each.
STS.HS.6.2.c	Identify the relationships between all stakeholders involved in a construction project.
STS.HS.6.2.d	Identify positive work behaviors and personal qualities needed to be employable.

ARCHITECTURAL DESIGN 1 (cont.)

STS.HS.6.3 Apply math terminology, functions, and formulas to architectural design.

STS.HS.6.3.a	Identify whole numbers, decimals, fractions, and complex numbers.
STS.HS.6.3.b	Apply arithmetic operations.
STS.HS.6.3.c	Solve decimal/fraction conversions.
STS.HS.6.3.d	Apply algebraic skills to solve problems involving area, volume, and angles.
STS.HS.6.3.e	Explain scale using architect or engineer scales.

STS.HS.6.4 Utilize drafting and design technology.

STS.HS.6.4.a	Employ the appropriate technology tools (i.e., CAD, SolidWorks, Fusion 360, Inventor, etc.) for conveying information, solving problems, and expediting workplace processes.
STS.HS.6.4.b	Employ basic computer and information technology skills used in the drafting industry.
STS.HS.6.4.c	Employ ethical digital citizenship.

ARCHITECTURAL DESIGN 1 (cont.)

STS.HS.6.5 Analyze architectural styles across time.

STS.HS.6.5.a	Identify design principles, elements, and architectural styles.
STS.HS.6.5.b	Identify the building materials, locations, and design that have historically influenced architecture.
STS.HS. 6.5.c	Identify the influence that historical buildings have on today's architecture.

STS.HS.6.6 Identify typical building design and construction methods and practices.

STS.HS.6.6.a	Identify terms and definitions commonly used in the architectural profession.
STS.HS.6.6.b	Identify various digital drafting and modeling options (i.e., CAD/BIM).
STS.HS.6.6.c	Identify the types of materials, their properties, and applications used in building construction.
STS.HS.6.6.d	Identify different types of fasteners, adhesives, and finishes.

STS.HS.6.7 Communicate design solutions.

STS.HS.6.7.a	Identify common line types, symbols, and components that comprise architectural construction working drawings.
STS.HS.6.7.b	Identify dimensions on working drawing.
STS.HS.6.7.c	Create multi-page working drawings.
STS.HS.6.7.d	Employ correct annotation of line type, section line labels, and dimensions.
STS.HS.6.7.e	Create shaded and rendered presentation drawings.

ARCHITECTURAL DESIGN 2

COURSE DESCRIPTION

This capstone course allows students to create working drawings for residential construction and systems that meet industry standards and codes. Students will create working drawings of residential construction systems.

Target Grades: 11-12.

STANDARDS AND INDICATORS:

STS.HS.7.1 Apply safety principles, practices, and guidelines to the work environment.

STS.HS.7.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.7.7.b	Employ eye protection in compliance with Neb. Rev. Statute 79-715.
STS.HS.7.1.c	Identify office safety hazards.
STS.HS.7.1.d	Employ appropriate Personal Protective Equipment (PPE).
STS.HS.7.1.e	Employ proper ergonomics.

STS.HS.7.2 Identify architectural career opportunities.

STS.HS.7.2.a	Identify the primary duties and attributes of an architect or architectural technician.
STS.HS.7.2.b	Identify various careers within the architectural profession as well as the training and certification needed for each.
STS.HS.7.2.c	Identify the relationships between stakeholders involved in a construction project.
STS.HS.7.2.d	Identify positive work behaviors and personal qualities needed to be employable.

ARCHITECTURAL DESIGN 2 (cont.)

STS.HS.7.3 Apply math terminology, functions, and formulas to architectural design.

STS.HS.7.3.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.7.3.b Apply arithmetic operations.

STS.HS.7.3.c Solve decimal/fraction conversions.

STS.HS.7.3.d Apply mathematical functions used to solve problems.

STS.HS.7.3.e Interpret scale using architect or engineer scales.

STS.HS.7.4 Explain site characteristics and how they affect building design and land development.

STS.HS.7.4.a Identify the impact of infrastructure (i.e., storm water runoff, pedestrian and vehicular access).

STS.HS.7.4.b Explain environmental factors essential to design and construction.

STS.HS.7.5 Explain residential and commercial building systems.

STS.HS.7.5.a Identify general categories of structural systems in residential and commercial buildings.

STS.HS.7.5.b Explain code requirements and constraints as they pertain to current local and national building codes.

STS.HS.7.5.c Identify alternative construction methods and materials.

ARCHITECTURAL DESIGN 2 (cont.)

STS.HS.7.6 Create design solutions.

STS.HS.7.6.a Create multipage working drawings.

STS.HS.7.6.b Create applicable drawing views, details, schedules, notes, and index tables.

STS.HS.7.6.c Employ correct annotation of line type, section line labels, and dimensions.

STS.HS.7.7 Produce a project proposal.

STS.HS.7.7.a Employ architectural terminology in all communication.

STS.HS.7.7.b Employ correct annotation of line type, section line labels, and dimensions.

STS.HS.7.7.c Create shaded and rendered presentation drawings.

STS.HS.7.7.d Identify plan review requirements needed to obtain a building permit.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES

COURSE DESCRIPTION

This introductory course provides the skills and technical knowledge for a beginning student in areas of industry, safety, material, equipment, and process understanding. This entry level course helps students gain a foundation in all areas of Skilled and Technical Sciences including Architecture and Construction; Energy and Engineering; Manufacturing; and Transportation, Distribution, and Logistics.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.19.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.19.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.19.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.19.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.

STS.HS.19.1.d Employ the safe application of tools and machines.

STS.HS.19.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.19.1.f Demonstrate proper handling and storing of materials.

STS.HS.19.2 Identify career opportunities in Skilled and Technical Sciences areas.

STS.HS.19.2.a Identify responsibilities and characteristics of professionals in a skilled and technical sciences industry.

STS.HS.19.2.b Describe work behaviors needed to be employable in a skilled and technical sciences industry.

STS.HS.19.2.c Identify the training, education, certification, and licensing requirements for various careers in a skilled and technical sciences industry.

STS.HS.19.2.d Identify high wage, high demand, and high skill careers in skilled and technical sciences.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES (cont.)

STS.HS.19.3 Apply appropriate academic and technical skills to produce a product.

STS.HS.19.3.a Employ project-related math operations and formulas.

STS.HS.19.3.b Employ effective verbal, written, and/or visual communication skills.

STS.HS.19.3.c Define course content vocabulary.

STS.HS.19.3.d Conduct the accurate use of measurement tools

STS.HS.19.4 Identify the materials, tools, machines, and equipment required to produce a product.

STS.HS.19.4.a Identify types of materials to be used for various products.

STS.HS.19.4.b Identify types of fasteners for various products.

STS.HS.19.4.c Identify types of adhesives for various products.

STS.HS.19.4.d Identify types of finishes for various products.

STS.HS.19.4.e Identify the correct tools, machines, and equipment appropriate for a specific operation or process.

STS.HS.19.5 Produce a product(s).

STS.HS.19.5.a Interpret working drawings of a product to be produced.

STS.HS.19.5.b Select the proper materials adhesives, fasteners and finishes for a product.

STS.HS.19.5.c Demonstrate the proper tool, machine, or equipment selection and usage for each corresponding operation needed to produce a product.

STS.HS.19.5.d Execute a plan of procedure.

RESIDENTIAL ELECTRICTRICAL WIRING

COURSE DESCRIPTION

This introductory course provides an overview of the theory, terminology, tools, and practical experience in the skills needed for a career in the field of residential wiring. Emphasis will be placed on electrical safety, types of electricity components used in residential wiring, and an opportunity to practice the knowledge and skills learned in the class.

Target Grades: 10-12.

STANDARDS AND INDICATORS:

STS.HS.29.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.29.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.29.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.29.1.c Employ eye protection in compliance with Neb. Rev. Statute 79–715.

STS.HS.29.1.d Employ the safe application of tools and machines.

STS.HS.29.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.29.1.f Demonstrate proper handling and storing of materials.

STS.HS.29.1.g List the techniques and practices used to prevent fires.

STS.HS.29.2 Identify career opportunities in the electrical industry.

STS.HS.29.2.a Describe work behaviors needed to be employable.

STS.HS.29.2.b Identify employment trends in the electrical industry.

STS.HS.29.2.c Identify the responsibilities and characteristics of professionals in the electrical industry.

STS.HS.29.2.d Identify the training, education, certification, and licensing requirements for careers in the electrical industry.

RESIDENTIAL ELECTRICTRICAL WIRING (cont.)

STS.HS.29.3 Demonstrate the use of electrical communications.

STS.HS.29.3.a Recall vocabulary related to the electrical environment.

STS.HS.29.3.b Apply math calculations for measurements and OHM'S law.

STS.HS.29.3.c Interpret electrical symbols, plans, drawings, and codes.

STS.HS.29.4 Demonstrate the proper uses of electrical components.

STS.HS.29.4.a Employ National Electric Code (NEC) standards when wiring electrical components.

STS.HS.29.4.b Demonstrate the rough-in of electrical devices to meet NEC standards.

STS.HS.29.4.c Demonstrate the connection of electrical devices to meet NEC standards.

STS.HS.29.4.d Demonstrate the installation of electrical devices to meet NEC standards.

STS.HS.29.5 Demonstrate the use of materials, tools, and equipment needed in electricity.

STS.HS.29.5.a Demonstrate the proper use of electrical tools and equipment.

STS.HS.29.5.b Identify the different types of wires used for electricity.

STS.HS.29.5.c Demonstrate the proper use of electrical hardware.

STS.HS.29.5.d Demonstrate the proper use of low and high voltage circuits.

CONSTRUCTION TRADES 1

COURSE DESCRIPTION

This intermediate course provides an overview of construction materials, tools, and processes needed for a basic construction project. This course will lay the groundwork for higher-level construction projects and for careers in the construction industry.

Target Grades: 10-12.

STANDARDS AND INDICATORS:

STS.HS.10.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.10.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.10.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.10.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.

STS.HS.10.1.d Employ the safe application of tools and machines.

STS.HS.10.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.10.1.f Demonstrate proper handling and storing of materials.

STS.HS.10.1.g Demonstrate proper use of a ladder.

STS.HS.10.2 Identify career opportunities in the construction industry.

STS.HS.10.2.a Describe work behaviors needed to be employable.

STS.HS.10.2.b Identify employment trends in various construction sectors (e.g., residential, commercial, industrial, energy, green technologies, etc.).

STS.HS.10.2.c Identify the responsibilities and characteristics of professionals in the construction industry.

STS.HS.10.2.d Identify the training, education, certification, and licensing requirements for various careers in the construction industry.

CONSTRUCTION TRADES 1 (cont.)

STS.HS.10.3 Demonstrate use of construction communications.

STS.HS.10.3.a Interpret construction terminology.

STS.HS.10.3.b Identify construction tools and equipment.

STS.HS.10.3.c Interpret construction plans, drawings, and schedules.

STS.HS.10.4 Summarize building systems and components.

STS.HS.10.4.a Identify construction materials needed to complete a project (i.e., dimensional, engineered, and steel.

STS.HS.10.4.b Identify different types of fasteners, adhesives, and finishes needed to complete a project.

STS.HS.10.5 Demonstrate the building process

STS.HS.10.5.a Identify, receive, and inspect materials.

STS.HS.10.5.b Apply math functions and formulas to complete tasks.

STS.HS.10.5.c Correctly and accurately use tools and equipment to perform material takeoff (MTO) from the drawings and meeting specifications.

STS.HS.10.5.d Construct a project using dimensional, engineered, or steel components.

CONSTRUCTION TRADES 2

COURSE DESCRIPTION

This capstone course is designed for the student pursuing a career as a construction professional and combines technical skills with planning and management to prepare the student for all stages of a construction project.

Target Grades: 11-12.

STANDARDS AND INDICATORS:

STS.HS.11.1 Apply safety principles, practices, philosophy and guidelines to the work environment.

STS.HS.11.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.11.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.11.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79-715.
STS.HS.11.1.d	Employ the safe application of tools and machines.
STS.HS.11.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.11.1.f	Demonstrate proper handling and storing of materials.
STS.HS.11.1.g	Demonstrate proper use of a ladder.
STS.HS.11.1.h	Identify the role of OSHA in establishing and maintaining safe work environments.

STS.HS.11.2 Identify career opportunities in the construction industry.

STS.HS.11.2.a	Describe work behaviors needed to be employable.
STS.HS.11.2.b	Identify employment trends in various construction sectors (residential, commercial, industrial, energy, green technologies, etc.).
STS.HS.11.2.c	Identify the responsibilities and characteristics of professionals in the construction industry.
STS.HS.11.2.d	Identify the training, education, certification and licensing requirements for various careers in the construction industry.

CONSTRUCTION TRADES 2 (cont.)

STS.HS.11.3 Demonstrate use of construction communications.

STS.HS.11.3.a Define construction terminology.

STS.HS.11.3.b Identify construction tools and equipment needed for a project.

STS.HS.11.3.c Interpret construction plans, drawings and schedules.

STS.HS.11.4 Summarize building systems and components.

STS.HS.11.4.a Identify and inspect construction materials needed to complete a project (ie. dimensional, engineered, or steel).

STS.HS.11.4.b Identify different types of fasteners, adhesives, and finishes needed to complete a project.

STS.HS.11.4.c Describe the building systems needed to complete a construction project.

STS.HS.11.4.d Describe the building components needed to complete a construction project (i.e. trusses, joists, beams, etc.).

STS.HS.11.4.e Identify emerging building trends/technology.

STS.HS.11.5 Identify building codes and permitting processes.

STS.HS.11.5.a Identify local, state, and national building regulations and codes.

STS.HS.11.5.b Describe the requirements needed to obtain a building permit.

STS.HS.11.5.c Identify appropriate building inspections.

CONSTRUCTION TRADES 2 (cont.)

STS.HS.11.6 Demonstrate the building process.

STS.HS.11.6.a Identify, receive, and inspect materials.

STS.HS.11.6.b Apply math functions and formulas to complete job/workplace tasks.

STS.HS.11.6.c Employ tools and equipment to perform material takeoff (MTO) from the drawings and meeting specifications.

STS.HS.11.6.d Construct a project using dimensional, engineered, or steel components.

STS.HS.11.7 Install construction sub-systems (ie. electrical, plumbing, HVAC, etc.).

STS.HS.11.7.a Identify, receive, and inspect materials.

STS.HS.11.7.b Apply math functions and formulas to complete construction job/workplace tasks.

STS.HS.11.7.c Install structural, mechanical, and finish sub-systems correctly to meet current local, state, and national codes.

FUNDAMENTALS OF ENERGY

COURSE DESCRIPTION

This introductory course will focus on the various types, principles, and distribution methods of energy and energy systems.

Target Grades: 9-12.

STANDARDS AND INDICATORS:

STS.HS.16.1 Apply safety principles, practice, philosophy, and guidelines to the work environment.

STS.HS.16.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.16.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.16.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79–715.
STS.HS.16.1.d	Employ the safe application of tools and machines.
STS.HS.16.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.16.1.f	Demonstrate proper handling and storing of materials.

STS.HS.16.2 Determine career opportunities in the energy field.

STS.HS.16.2.a	Identify opportunities and employment trends in various energy sectors.
STS.HS.16.2.b	Identify the training, education, certification, and licensing requirements for energy occupation choices.
STS.HS.16.2.c	Identify the responsibilities of professionals in the energy industry.

FUNDAMENTALS OF ENERGY (cont.)

STS.HS.16.3 Summarize the history of energy generation and distribution.

STS.HS.16.3.a Summarize the history of electric power generation and distribution.

STS.HS.16.3.b Summarize the history of fluid and liquid fuel production and distribution.

STS.HS.16.3.c Identify emerging trends in energy generation and distribution.

STS.HS.16.4 Identify legal and societal influences affecting energy production and distribution.

STS.HS.16.4.a Identify the legal factors that impact the production and distribution of energy.

STS.HS.16.4.b Identify the impact society has on energy production and distribution.

STS.HS.16.4.c Identify the design and project creation process for energy production and distribution.

STS.HS.16.5 Classify the types of energy and their uses.

STS.HS.16.5.a Identify the seven forms of energy.

STS.HS.16.5.b Recognize energy transformations in various settings.

STS.HS.16.5.c Recognize renewable and non-renewable energy sources.

STS.HS.16.5.d Identify the law of conservation of energy.

FUNDAMENTALS OF ENERGY (cont.)

STS.HS.16.6 Appraise energy storage and distribution methods.

STS.HS.16.6.a Summarize the components of an energy delivery system.

STS.HS.16.6.b Identify key pieces of equipment used in the distribution and storage of fluid fuels and electrical power.

STS.HS.16.6.c Compare centralized power generation to distributed generation.

STS.HS.16.7 Apply units of measure used in the evaluation of energy production and delivery.

STS.HS.16.7.a Calculate equations using Ohm's Law.

STS.HS.16.7.b Calculate equations using thermal energy formulas.

STS.HS.16.8 Produce an energy-related product or structure.

STS.HS.16.8.a Generate sketches and plans for an energy-related product or structure.

STS.HS.16.8.b Determine structural requirements, specifications, and estimate costs of structures.

STS.HS.16.8.c Execute plans for construction of energy related products or structures.

SUSTAINABLE ENERGY

COURSE DESCRIPTION

This intermediate course will focus on energy sources and alternative forms of energy and their uses.

Target Grades: 10-12.

STANDARDS AND INDICATORS:

STS.HS.31.1 Apply safety principles, practice, philosophy, and guidelines to the work environment.

STS.HS.31.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.31.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.31.1.c Employ eye protection in compliance with Neb. Rev. Statute 79–715.

STS.HS.31.1.d Employ the safe application of tools and machines.

STS.HS.31.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.31.1.f Demonstrate proper handling and storing of materials.

STS.HS.31.2 Identify career opportunities in the sustainable energy field.

STS.HS.31.2.a Identify the responsibilities of professionals in the sustainable energy industry.

STS.HS.31.2.b Identify opportunities and employment trends in various sustainable energy sectors.

STS.HS.31.2.c Identify the training, education, certification, and licensing requirements for occupation choices within sustainable energy.

SUSTAINABLE ENERGY (cont.)

STS.HS.31.3 Explain societal topics concerning sustainable energy.

STS.HS.31.3.a Summarize energy systems' relation to the conservation and interaction of energy and matter.

STS.HS.31.3.b Explain the responsibilities and considerations involved in making decisions in the energy industry.

STS.HS.31.3.c Explain the economic and political ramifications of the energy industry.

STS.HS.31.4 Identify the various types of energy and their uses.

STS.HS.31.4.a Explain the characteristics of wind as an energy source.

STS.HS.31.4.b Explain how solar energy may be used as an alternative energy source.

STS.HS.31.4.c Explain how geothermal energy can be used as a form of energy.

STS.HS.31.4.d Explain how biomass is used as an alternative form of energy.

STS.HS.31.4.e Explain how water may be used in energy production.

STS.HS.31.5 Determine the materials, tools, and equipment needed to manufacture a sustainable energy product.

STS.HS.31.5.a Determine types of materials, fasteners, adhesives, and finishes needed to produce a specific product related to sustainable energy.

STS.HS.31.5.b Determine the correct tools and equipment needed to produce a specific product related to sustainable energy.

STS.HS.31.5.c Identify the components of an effective sustainable energy product construction plan.

SUSTAINABLE ENERGY (cont.)

STS.HS.31.6 Explain current trends and information related to sustainable energy production and distribution.

STS.HS.31.6.a Identify pros and cons of sustainable energy.

STS.HS.31.6.b Locate, organize, and reference reliable information from various sources to communicate trends in sustainable energy.

STS.HS.31.7 Execute accurate measurements using math and measurement tools pertaining to sustainable energy.

STS.HS.31.7.a Identify types of measurement tools used in sustainable energy.

STS.HS.31.7.b Demonstrate the accurate use of measurement and layout tools to 1/16" precision.

STS.HS.31.7.c Solve math functions and formulas to complete tasks within the sustainable energy field.

STS.HS.31.8 Construct a sustainable energy related product or structure.

STS.HS.31.8.a Create sketches and plans for a sustainable energy related product or structure.

STS.HS.31.8.b Determine structural requirements, specifications, and estimate costs of structures.

STS.HS.31.8.c Interpret plans to construct, maintain, or repair sustainable energy-related products or structures.

STS.HS.31.8.d Properly plan, build, and maintain the product or structure.

PHYSICS AND MATHEMATICS OF ENERGY

COURSE DESCRIPTION

This capstone course provides the skills and technical knowledge for a student in areas of industry, safety, material, equipment, and process understanding in various energy industries. Students will use knowledge and skills from previous energy courses.

Target Grades: 9-12.

STANDARDS AND INDICATORS:

STS.HS.27.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.27.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.27.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.27.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79–715.
STS.HS.27.1.d	Employ the safe application of tools and machines.
STS.HS.27.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.27.1.f	Demonstrate proper handling and storing of materials.

STS.HS.27.2 Identify career opportunities in fields related to the physics and mathematics of energy.

STS.HS.27.2.a	Identify the responsibilities and characteristics of professionals in the energy industry.
STS.HS.27.2.b	Identify career opportunities in the energy field.
STS.HS.27.2.c	Identify the training, education, certification, and licensing requirements for various careers in the energy industry.

PHYSICS AND MATHEMATICS OF ENERGY (cont.)

STS.HS.27.3 Execute accurate measurements using measurement tools.

STS.HS.27.3.a Identify types of measurement tools.

STS.HS.27.3.b Categorize measurement tools by use.

STS.HS.27.3.c Demonstrate the accurate use of measurement and layout tools to 1/16" precision.

STS.HS.27.4 Apply principles of physics and mathematics to the energy industry.

STS.HS.27.4.a Identify the applications of physics in energy production, distribution, and use.

STS.HS.27.4.b Identify the applications of mathematics in energy production, distribution, and use.

STS.HS.27.4.c Apply principles of physics and mathematics to the problem solving and product creation process.

STS.HS.27.5 Apply appropriate academic and technical skills to energy-centric activities and projects.

STS.HS.27.5.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.27.5.b Solve decimal/fraction conversions.

STS.HS.27.5.c Employ math functions and formulas to complete an energy job and workplace tasks.

STS.HS.27.5.d Communicate principles and terminology associated with the study and use of mathematics and physics.

PHYSICS AND MATHEMATICS OF ENERGY (cont.)

STS.HS.27.6 Identify the materials, tools, and equipment needed to manufacture a product used in the energy industry.

STS.HS.27.6.a Determine types of materials, fasteners, adhesives, and finishes needed to produce an energy product.

STS.HS.27.6.b Determine the correct tools and equipment needed to produce a specific product.

STS.HS.27.6.c Identify components of an effective plan to build an energy product.

STS.HS.27.7 Produce an energy product.

STS.HS.27.7.a Devise a plan to build an energy product.

STS.HS.27.7.b Execute a plan to create an energy product.

STS.HS.27.7.c Identify the elements of a finished energy product.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES

COURSE DESCRIPTION

This introductory course provides the skills and technical knowledge for a beginning student in areas of industry, safety, material, equipment, and process understanding. This entry level course helps students gain a foundation in all areas of Skilled and Technical Sciences including Architecture and Construction; Energy and Engineering; Manufacturing; and Transportation, Distribution, and Logistics.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.19.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.19.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.19.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.19.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.

STS.HS.19.1.d Employ the safe application of tools and machines.

STS.HS.19.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.19.1.f Demonstrate proper handling and storing of materials.

STS.HS.19.2 Identify career opportunities in Skilled and Technical Sciences areas.

STS.HS.19.2.a Identify responsibilities and characteristics of professionals in a skilled and technical sciences industry.

STS.HS.19.2.b Describe work behaviors needed to be employable in a skilled and technical sciences industry.

STS.HS.19.2.c Identify the training, education, certification, and licensing requirements for various careers in a skilled and technical sciences industry.

STS.HS.19.2.d Identify high wage, high demand, and high skill careers in skilled and technical sciences.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES (cont.)

STS.HS.19.3 Apply appropriate academic and technical skills to produce a product.

STS.HS.19.3.a Employ project-related math operations and formulas.

STS.HS.19.3.b Employ effective verbal, written, and/or visual communication skills.

STS.HS.19.3.c Define course content vocabulary.

STS.HS.19.3.d Conduct the accurate use of measurement tools

STS.HS.19.4 Identify the materials, tools, machines, and equipment required to produce a product.

STS.HS.19.4.a Identify types of materials to be used for various products.

STS.HS.19.4.b Identify types of fasteners for various products.

STS.HS.19.4.c Identify types of adhesives for various products.

STS.HS.19.4.d Identify types of finishes for various products.

STS.HS.19.4.e Identify the correct tools, machines, and equipment appropriate for a specific operation or process.

STS.HS.19.5 Produce a product(s).

STS.HS.19.5.a Interpret working drawings of a product to be produced.

STS.HS.19.5.b Select the proper materials adhesives, fasteners and finishes for a product.

STS.HS.19.5.c Demonstrate the proper tool, machine, or equipment selection and usage for each corresponding operation needed to produce a product.

STS.HS.19.5.d Execute a plan of procedure.

ENGINEERING DESIGN AND SYSTEMS THINKING

COURSE DESCRIPTION

This course gives students the opportunity to develop skills and understanding of engineering. Students will learn about various elements of engineering design and how engineering requires systematic thinking. Topics will include safety, tools, math and science concepts, and engineering principles and processes.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.14.1 Apply safety principles, practice, philosophy, and guidelines to the work environment.

- STS.HS.14.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.14.1.b Employ eye protection in compliance with Neb. Rev. Statute 79–715.
- STS.HS.14.1.c Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.14.1.d Employ the safe application of tools and machines.
- STS.HS.14.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.14.1.f Demonstrate proper handling and storing of materials.

STS.HS.14.2 Execute accurate measurements using measurement tools commonly used in engineering.

- STS.HS.14.2.a Identify types of engineering measurement tools.
- STS.HS.14.2.b Categorize engineering measurement tools by use.
- STS.HS.14.2.c Demonstrate the accurate use of engineering measurement and layout tools to 1/16" precision.

ENGINEERING DESIGN AND SYSTEMS THINKING (cont.)

STS.HS.14.3 Solve math functions and formulas to complete engineering job/workplace tasks.

STS.HS.14.3.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.14.3.b Apply basic arithmetic operations.

STS.HS.14.3.c Solve decimal or fraction conversions.

STS.HS.14.4 Compare the primary engineering branches.

STS.HS.14.4.a Summarize each branch of engineering.

STS.HS.14.4.b Compare the engineering branches.

STS.HS.14.5 Explain engineering systems thinking.

STS.HS.14.5.a Define "system" in an engineering context.

STS.HS.14.5.b Explain a current system in an engineering context.

STS.HS.14.6 Produce an engineered solution.

STS.HS.14.6.a Identify engineering principles needed for a solution.

STS.HS.14.6.b Apply engineering principles.

STS.HS.14.6.c Identify engineering processes needed for a solution.

STS.HS.14.6.d Apply engineering processes.

STS.HS.14.6.e Apply task specific mathematical concepts.

STS.HS.14.6.f Apply task specific scientific concepts.

STS.HS.14.6.g Demonstrate proper use of engineering tools and software.

ENGINEERING PROBLEM-SOLVING

COURSE DESCRIPTION

This intermediate course exposes students to some of the major concepts that they will encounter in a postsecondary engineering course of study. Students will learn how to identify an engineering problem, research possible solutions, and determine the best solution for the problem.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.15.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.15.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.15.1.b	Employ eye protection in compliance with Neb. Rev. Statute 79–715.
STS.HS.15.1.c	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.15.1.d	Employ the safe application of tools and machines.
STS.HS.15.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.15.1.f	Demonstrate proper handling and storing of materials.

STS.HS.15.2 Describe engineering as a profession.

STS.HS.15.2.a	Identify opportunities and employment trends in the engineering branches.
STS.HS.15.2.b	Identify training, education, certification, and licensing requirements for careers in the different engineering branches.

ENGINEERING PROBLEM-SOLVING (cont.)

STS.HS.15.3 Employ the engineering design process to solve an engineering problem.

STS.HS.15.3.a	Define an engineering problem.
STS.HS.15.3.b	Research possible solutions.
STS.HS.15.3.c	Design viable solutions.
STS.HS.15.3.d	Identify the materials, tools, emerging technologies, and equipment needed to manufacture a solution to an engineering problem.
STS.HS.15.3.e	Solve mathematical and scientific problems required to create engineering solutions.
STS.HS.15.3.f	Determine structural requirements and specifications.
STS.HS.15.3.g	Estimate costs for the solution.

STS.HS.15.4 Explain professional engineering communications.

STS.HS.15.4.a	Identify a concise problem statement.
STS.HS.15.4.b	Explain the use of informal and formal presentations, using appropriate media, to engage and inform audiences.
STS.HS.15.4.c	Explain the documentation of the design process and project work using engineering drawings, engineering standards, and documentation protocols.

ROBOTICS

COURSE DESCRIPTION

This intermediate course is designed to explore the current and future use, design, construction, operation, and use of robots and automation technology. Students will apply mathematics formulas and calculations to design and construct a robot.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.30.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.30.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.30.1.b Employ eye protection in compliance with Neb. Rev. Statute 79–715.
- STS.HS.30.1.c Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.30.1.d Employ the safe application of tools and machines.
- STS.HS.30.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.30.1.f Demonstrate proper handling and storing of materials.

STS.HS.30.2 Solve robotics-related mathematics.

- STS.HS.30.2.a Solve calculations using whole numbers, decimals, fractions, and complex numbers.
- STS.HS.30.2.b Solve basic arithmetic and measurement operations.
- STS.HS.30.2.c Solve decimal/fraction conversions.
- STS.HS.30.2.d Calculate area.
- STS.HS.30.2.e Calculate circumference.
- STS.HS.30.2.f Calculate average.

ROBOTICS (cont.)

STS.HS.30.3 Employ robotics-related science principles.

STS.HS.30.3.a	Calculate fundamental electrical measurements using laws of electricity.
STS.HS.30.3.b	Calculate torque.
STS.HS.30.3.c	Calculate the center of gravity.
STS.HS.30.3.d	Calculate mechanical advantage.
STS.HS.30.3.e	Calculate gear ratios.
STS.HS.30.3.f	Calculate angular momentum.
STS.HS.30.3.g	Calculate trajectory.

STS.HS.30.4 Identify the different specialized areas of robotics.

STS.HS.30.4.a	Summarize each specialized field of robotics.
STS.HS.30.4.b	Identify the diversity of the robotics usage.
STS.HS.30.4.c	Identify the education, certification, or licensure required in a robotics-related career.

STS.HS.30.5 Design and assemble automation or robots that are functionally and mechanically correct.

STS.HS.30.5.a	Demonstrate use of a physical or simulated robot.
STS.HS.30.5.b	Demonstrate basic programming concepts: variables, data structures, control structures, and syntax.
STS.HS.30.5.c	Generate a mechanical solution for a robot to overcome a physical or simulated physics challenge.
STS.HS.30.5.d	Generate a programming solution for a robot to overcome a physical or simulated autonomous challenge.
STS.HS.30.5.g	Assemble various physical or simulated mechanisms to understand mechanical setups.
STS.HS.30.5.h	Construct a physical or simulated fully functioning robot that has proof of concept through engineering documentation protocols.

SYSTEMS ENGINEERING AND PROJECT MANAGEMENT

COURSE DESCRIPTION

This is a capstone engineering research course in which students will design and develop an original solution to a valid open-ended technical problem by applying the engineering design process.

Target Grades 11-12.

STANDARDS AND INDICATORS:

STS.HS.32.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.32.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.32.1.b Employ eye protection in compliance with Neb. Rev. Statute 79-715.

STS.HS.32.1.c Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.32.1.d Employ the safe application of tools and machines.

STS.HS.32.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.32.1.f Demonstrate proper handling and storing of materials.

STS.HS.32.2 Identify career opportunities in engineering areas.

STS.HS.32.2.a Identify responsibilities and characteristics of professionals in an engineering industry.

STS.HS.32.2.b Describe work behaviors needed to be employable in an engineering industry.

STS.HS.32.2.c Identify the training, education, certification, and licensing requirements for various careers in an engineering industry.

STS.HS.32.2.d Identify high wage, high demand, and high skill careers in engineering.

SYSTEMS ENGINEERING AND PROJECT MANAGEMENT (cont.)

STS.HS.32.3 Employ a formal engineering design process to create a solution to an existing problem.

STS.HS.32.3.a	Collaborate with industry experts, mentors, or advanced students.
STS.HS.32.3.b	Demonstrate authentic engineering methods and documentation.
STS.HS.32.3.c	Apply task-specific mathematical concepts.
STS.HS.32.3.d	Apply task-specific scientific concepts.
STS.HS.32.3.e	Complete a prototype or minimum viable product (MVP).
STS.HS.32.3.f	Perform engineering tests to evaluate the prototype or MVP.
STS.HS.32.3.g	Develop a marketing plan and production plan.
STS.HS.32.3.h	Report on the importance of each step of the engineering process.

ADVANCED ROBOTICS

COURSE DESCRIPTION

This course is a capstone experience in which students engineer robot solutions to complete a task. This includes design, construction, and programming a robot.

Target Grades 11-12.

STANDARDS AND INDICATORS:

STS.HS.5.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.5.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.5.1.b Employ eye protection in compliance with Neb. Rev. Statute 79–715.
- STS.HS.5.1.c Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.5.1.d Employ the safe application of tools and machines.
- STS.HS.5.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.5.1.f Demonstrate proper handling and storing of materials.

STS.HS.5.2 Identify careers in robotics.

- STS.HS.5.2.a Identify robotics industry vocabulary.
- STS.HS.5.2.b Identify the responsibilities of robotics professionals.
- STS.HS.5.2.c Identify the education, certification, or licensure required in a robotics-related career.

ADVANCED ROBOTICS (cont.)

STS.HS.5.3 Create a robotic solution (physical or simulated), using a formal engineering design process, to solve an existing problem.

STS.HS.5.3.a Demonstrate authentic engineering methods and documentation.

STS.HS.5.3.b Apply task-specific mathematical concepts.

STS.HS.5.3.c Apply task-specific scientific concepts.

STS.HS.5.3.d Explain each step of the design process.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES

COURSE DESCRIPTION

This introductory course provides the skills and technical knowledge for a beginning student in areas of industry, safety, material, equipment, and process understanding. This entry level course helps students gain a foundation in all areas of Skilled and Technical Sciences including Architecture and Construction; Energy and Engineering; Manufacturing; and Transportation, Distribution, and Logistics.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.19.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.19.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.19.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.19.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.

STS.HS.19.1.d Employ the safe application of tools and machines.

STS.HS.19.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.19.1.f Demonstrate proper handling and storing of materials.

STS.HS.19.2 Identify career opportunities in Skilled and Technical Sciences areas.

STS.HS.19.2.a Identify responsibilities and characteristics of professionals in a skilled and technical sciences industry.

STS.HS.19.2.b Describe work behaviors needed to be employable in a skilled and technical sciences industry.

STS.HS.19.2.c Identify the training, education, certification, and licensing requirements for various careers in a skilled and technical sciences industry.

STS.HS.19.2.d Identify high wage, high demand, and high skill careers in skilled and technical sciences.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES (cont.)

STS.HS.19.3 Apply appropriate academic and technical skills to produce a product.

STS.HS.19.3.a Employ project-related math operations and formulas.

STS.HS.19.3.b Employ effective verbal, written, and/or visual communication skills.

STS.HS.19.3.c Define course content vocabulary.

STS.HS.19.3.d Conduct the accurate use of measurement tools

STS.HS.19.4 Identify the materials, tools, machines, and equipment required to produce a product.

STS.HS.19.4.a Identify types of materials to be used for various products.

STS.HS.19.4.b Identify types of fasteners for various products.

STS.HS.19.4.c Identify types of adhesives for various products.

STS.HS.19.4.d Identify types of finishes for various products.

STS.HS.19.4.e Identify the correct tools, machines, and equipment appropriate for a specific operation or process.

STS.HS.19.5 Produce a product(s).

STS.HS.19.5.a Interpret working drawings of a product to be produced.

STS.HS.19.5.b Select the proper materials adhesives, fasteners and finishes for a product.

STS.HS.19.5.c Demonstrate the proper tool, machine, or equipment selection and usage for each corresponding operation needed to produce a product.

STS.HS.19.5.d Execute a plan of procedure.

DRAFTING AND DESIGN

COURSE DESCRIPTION

This introductory course builds the skills necessary to understand ideas being communicated through drawings and documents, and in turn, convey ideas, duties, and tasks to others in a form representing the industry. Students will use and follow industry-specific verbal and visual skills to accomplish workplace/jobsite communications. Students will review traditional project phases and various roles within them to plan for and implement phases within a project. Students will develop working drawings that will be used in design and manufacturing. Computer-aided drafting/design (CADD) may be used.

Target Grades 11-12.

STANDARDS AND INDICATORS:

STS.HS.13.1 Apply safety principles, practice, philosophy, and guidelines to the work environment.

STS.HS.13.1.a	Employ eye protection in compliance with Neb. Rev. Statute 79-715.
STS.HS.13.1.b	Identify office safety hazards.
STS.HS.13.1.c	Employ appropriate Personal Protective Equipment (PPE).
STS.HS.13.1.d	Employ proper ergonomics.
STS.HS.13.1.e	Complete applicable safety assessment with 100% accuracy.

STS.HS.13.2 Identify career opportunities in the drafting industry.

STS.HS.13.2.a	Identify the various careers, primary duties, and attributes of a drafting technician or a design engineer.
STS.HS.13.2.b	Identify the training, education, certification and licensing requirements for various careers of a drafting technician or design engineer.
STS.HS.13.2.c	Identify the relationships between stakeholders involved in a manufacturing project.
STS.HS.13.2.d	Identify positive work behaviors and personal qualities needed to be employable.
STS.HS.13.2.e	Identify high-wage, high-demand, and high-skill drafting careers.

DRAFTING AND DESIGN (cont.)

STS.HS.13.3 Apply math terminology, functions, and formulas to mechanical drafting.

STS.HS.13.3.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.13.3.b Apply arithmetic operations.

STS.HS.13.3.c Solve decimal/fraction conversions.

STS.HS.13.3.d Explain scale using architect or engineer scales.

STS.HS.13.4 Apply conventional drafting standards used in mechanical drafting.

STS.HS.13.4.a Identify terms and definitions commonly used in the mechanical drafting profession.

STS.HS.13.4.b Employ multiple sketching methods such as oblique, isometric and/or orthographic projection.

STS.HS.13.4.c Apply dimensional information and general notes in mechanical plans.

STS.HS.13.5 Utilize drafting and design technology.

STS.HS.13.5.a Employ the appropriate technology tools (i.e., CAD, SolidWorks, Fusion 360, Inventor, etc.) for conveying information, solving problems, and expediting workplace processes.

STS.HS.13.5.b Employ basic computer and information technology skills used in the drafting industry.

STS.HS.13.5.c Employ ethical digital citizenship.

DRAFTING AND DESIGN (cont.)

STS.HS.13.6 Produce a multiview working drawing.

STS.HS.13.6.a	Explain working drawings.
STS.HS.13.6.b	Determine types of materials, fasteners, adhesives, and finishes needed to build a product.
STS.HS.13.6.c	Produce applicable drawing views, schedules, notes, and index tables.
STS.HS.13.6.d	Produce and label section lines.
STS.HS.13.6.e	Produce and label detail drawings.
STS.HS.13.6.f	Produce dimensions.

MANUFACTURING PROCESSES – WOODS

COURSE DESCRIPTION

In this intermediate class, students will be introduced to the basic manufacturing process in wood. An emphasis will be placed on safe tool and machine usage as well as reading plans and using materials to take a project from conception to reality.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.23.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.23.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.23.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.23.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79-715.
STS.HS.23.1.d	Employ the safe application of tools and machines.
STS.HS.23.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.23.1.f	Demonstrate proper handling and storing of materials and chemicals.

STS.HS.23.2 Identify career opportunities in woodworking areas.

STS.HS.23.2.a	Identify responsibilities and characteristics of professionals in a woods industry.
STS.HS.23.2.b	Describe work behaviors needed to be employable in a woods industry.
STS.HS.23.2.c	Identify the training, education, certification, and licensing requirements for various careers in a woods industry.
STS.HS.23.2.d	Identify high wage, high demand, and high skill careers in woodworking.

MANUFACTURING PROCESSES – WOODS (cont.)

STS.HS.23.3 Demonstrate accurate measurements using measurement tools used in woods.

- STS.HS.23.3.a Identify types of woods measurement tools.
- STS.HS.23.3.b Explain woods measurement tools by use.
- STS.HS.23.3.c Demonstrate the accurate use of woods measurement and layout tools to 1/16" precision.

STS.HS.23.4 Solve math functions and formulas to complete woods manufacturing tasks.

- STS.HS.23.4.a Identify whole numbers, decimals, fractions, and complex numbers.
- STS.HS.23.4.b Apply basic arithmetic operations used in woods manufacturing.
- STS.HS.23.4.c Solve decimal/fraction conversions used in woods manufacturing.

STS.HS.23.5 Explain the use of woods manufacturing communications.

- STS.HS.23.5.a Define woods manufacturing terminology.
- STS.HS.23.5.b Explain the language of wood manufacturing.
- STS.HS.23.5.c Explain business and interpersonal communication appropriate to the work in the woods manufacturing environment.

STS.HS.23.6 Determine the materials, tools, machines, and processes required to manufacture a woods product.

- STS.HS.23.6.a Identify the characteristics, properties, and origin of diverse woods.
- STS.HS.23.6.b Differentiate additive and subtractive woods manufacturing.
- STS.HS.23.6.c Identify woods fasteners by their industry standard applications.
- STS.HS.23.6.d Determine feed rate and/or speed settings for a wood material and process.
- STS.HS.23.6.e Explain the operation and application of common woods industry chemicals.
- STS.HS.23.6.f Determine the correct tools, machines, and processes needed to produce a specific wood product.
- STS.HS.23.6.g Estimate the amount of materials and supplies needed to manufacture a wood product.

MANUFACTURING PROCESSES – WOODS (cont.)

STS.HS.23.7 Manufacture a product that uses wood as its primary material.

STS.HS.23.7.a	Interpret plans, drawings, and specifications to process wood materials.
STS.HS.23.7.b	Employ the standard operation and application of tools and machines along the wood manufacturing process.
STS.HS.23.7.c	Employ the process of applying the correct types of materials, fasteners, adhesives, and finishes required to manufacture a specific wood product.
STS.HS.23.7.d	Critique a finished product.
STS.HS.23.7.e	Appraise the manufactured product.

MANUFACTURING PROCESSES – METALS

COURSE DESCRIPTION

In this intermediate class, students will be introduced to the basic manufacturing process in metal. An emphasis will be placed on safe tool and machine usage as well as reading plans and using materials to take a project from conception to reality.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.21.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.21.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.21.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.21.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.
- STS.HS.21.1.d Employ the safe application of tools and machines.
- STS.HS.21.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.21.1.f Demonstrate proper handling and storing of materials and chemicals.

STS.HS.21.2 Identify career opportunities in metals areas.

- STS.HS.21.2.a Identify responsibilities and characteristics of professionals in a metals industry.
- STS.HS.21.2.b Describe work behaviors needed to be employable in a metals industry.
- STS.HS.21.2.c Identify the training, education, certification, and licensing requirements for various careers in a metals industry.
- STS.HS.21.2.d Identify high wage, high demand, and high skill careers in metals.

MANUFACTURING PROCESSES – METALS (cont.)

STS.HS.21.3 Demonstrate accurate measurements using measurement tools used in metals.

- STS.HS.21.3.a Identify types of metals measurement tools.
- STS.HS.21.3.b Explain metals measurement tools by use.
- STS.HS.21.3.c Demonstrate the accurate use of metals measurement and layout tools to 1/16" precision.

STS.HS.21.4 Solve math functions and formulas to complete metals manufacturing tasks.

- STS.HS.21.4.a Identify whole numbers, decimals, fractions, and complex numbers.
- STS.HS.21.4.b Apply basic arithmetic operations used in metals manufacturing.
- STS.HS.21.4.c Solve decimal/fraction conversions used in metals manufacturing.

STS.HS.21.5 Analyze the use of metals manufacturing communications.

- STS.HS.21.5.a Define metals manufacturing terminology.
- STS.HS.21.5.b Interpret the language of metals manufacturing.
- STS.HS.21.5.c Explain business and interpersonal communication appropriate to the work in the metals manufacturing environment.

STS.HS.21.6 Determine the materials, tools, machines, and processes required to manufacture a metals product.

- STS.HS.21.6.a Identify the characteristics, properties, and origin of diverse metals.
- STS.HS.21.6.b Differentiate additive and subtractive metals manufacturing.
- STS.HS.21.6.c Identify metals fasteners by their industry standard applications.
- STS.HS.21.6.d Determine feed rate and/or speed settings for a metal material and process.
- STS.HS.21.6.e Explain the operation and application of common metals industry chemicals.
- STS.HS.21.6.f Determine the correct tools, machines, and processes needed to produce a specific metal product.
- STS.HS.21.6.g Estimate the amount of materials and supplies needed to manufacture a metal product.

MANUFACTURING PROCESSES – METALS (cont.)

STS.HS.21.7 Manufacture a product that uses metal as its primary material.

STS.HS.23.7.a	Interpret plans, drawings, and specifications to process metal materials.
STS.HS.23.7.b	Employ the standard operation and application of tools and machines along the metal manufacturing process.
STS.HS.23.7.c	Apply the correct types of materials, fasteners, adhesives, and finishes required to manufacture a specific metal product.
STS.HS.23.7.d	Explain how to critique a finished product.
STS.HS.23.7.e	Explain how to appraise the manufactured product.

MANUFACTURING PROCESSES – PLASTICS

COURSE DESCRIPTION

In this intermediate class, students will be introduced to the basic manufacturing process in plastics. An emphasis will be placed on safe tool and machine usage as well as reading plans and using materials to take a project from conception to reality.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.22.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.22.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.22.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.22.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.
- STS.HS.22.1.d Employ the safe application of tools and machines.
- STS.HS.22.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.22.1.f Demonstrate proper handling and storing of materials and chemicals.

STS.HS.22.2 Identify career opportunities in plastics areas.

- STS.HS.22.2.a Identify responsibilities and characteristics of professionals in a plastics industry.
- STS.HS.22.2.b Describe work behaviors needed to be employable in a plastics industry.
- STS.HS.22.2.c Identify the training, education, certification, and licensing requirements for various careers in a plastics industry.
- STS.HS.22.2.d Identify information concerning high wage, high demand, and high skill careers in plastics.

MANUFACTURING PROCESSES – PLASTICS (cont.)

STS.HS.22.3 Demonstrate accurate measurements using measurement tools used in plastics.

STS.HS.22.3.a Identify types of plastics measurement tools.

STS.HS.22.3.b Explain plastics measurement tools by use.

STS.HS.22.3.c Demonstrate the accurate use of plastics measurement and layout tools to 1/16" precision.

STS.HS.22.4 Solve math functions and formulas to complete plastics manufacturing tasks.

STS.HS.22.4.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.22.4.b Apply basic arithmetic operations used in plastics manufacturing.

STS.HS.22.4.c Solve decimal/fraction conversions used in plastics manufacturing.

STS.HS.22.5 Identify the use of plastics manufacturing communications.

STS.HS.22.5.a Define plastics manufacturing terminology.

STS.HS.22.5.b Identify the language of plastics manufacturing.

STS.HS.22.5.c Explain business and interpersonal communication appropriate to the work in the plastics manufacturing environment.

MANUFACTURING PROCESSES – PLASTICS (cont.)

STS.HS.22.6 Determine the materials, tools, machines, and processes required to manufacture a plastics product.

STS.HS.22.6.a Identify the characteristics, properties, and origin of diverse plastics.

STS.HS.22.6.b Differentiate additive and subtractive plastics manufacturing.

STS.HS.22.6.c Identify plastics fasteners by their industry standard applications.

STS.HS.22.6.d Determine feed rate and/or speed settings for a plastic material and process.

STS.HS.22.6.e Explain the operation and application of common plastics industry chemicals.

STS.HS.22.6.f Determine the correct tools, machines, and processes needed to produce a specific plastic product.

STS.HS.22.6.g Estimate the amount of materials and supplies needed to manufacture a plastic product.

STS.HS.22.7 Manufacture a product that uses plastic as its primary material.

STS.HS.23.7.a Interpret plans, drawings, and specifications to process plastic materials.

STS.HS.23.7.b Employ the standard operation and application of tools and machines along the plastic manufacturing process.

STS.HS.23.7.c Apply the correct types of materials, fasteners, adhesives, and finishes required to manufacture a specific plastic product.

STS.HS.23.7.d Critique a finished product.

STS.HS.23.7.e Appraise the manufactured product.

INTRODUCTION TO ELECTRONICS

COURSE DESCRIPTION

This intermediate course includes the theory, terminology, equipment, and practical experiences needed to begin developing career skills relevant to the electronics industry. Electronics measurements, calculations, and circuitry will be applied.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.17.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.17.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.17.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.17.1.c Employ eye protection in compliance with Neb. Rev. Statute 79–715.
- STS.HS.17.1.d Employ the safe application of tools and machines.
- STS.HS.17.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.17.1.f Demonstrate proper handling and storing of materials and chemicals.

STS.HS.17.2 Identify career opportunities in the electronics industry.

- STS.HS.17.2.a Describe work behaviors needed to be employable.
- STS.HS.17.2.b Identify employment trends in various electronics industries.
- STS.HS.17.2.c Identify the responsibilities and characteristics of professionals in the electronics industry.
- STS.HS.17.2.d Identify the training, education, certification, and licensing requirements for various careers in the electronics industry.

INTRODUCTION TO ELECTRONICS (cont.)

STS.HS.17.3 Employ electronic terminology, symbols, laws, and equipment.

STS.HS.17.3.a Identify proper electronic terminology and symbols.

STS.HS.17.3.b Compute the Laws of Electronics (i.e., Ohms, Watts, Kirchhoff's).

STS.HS.17.3.c Identify and operate basic electronic equipment.

STS.HS.17.4 Classify components and their uses in electronic circuits.

STS.HS.17.4.a Identify connections and components in electronic circuits.

STS.HS.17.4.b Explain the purpose of individual components in electronic circuits.

STS.HS.17.4.c Explain how individual components will affect the function of a circuit.

STS.HS.17.5 Design and construct electronic circuits.

STS.HS.17.5.a Illustrate locations and order for components in a functioning electronic circuit.

STS.HS.17.5.b Construct circuits that function in the way they are designed.

STS.HS.17.5.c Move and replace components to change the function of an electronic circuit.

MANUFACTURING PRODUCTION – WOODS

COURSE DESCRIPTION

In the capstone course for the wood manufacturing track, students will utilize tools and equipment to produce parts and projects within specifications. Students will use the knowledge and skills from previous manufacturing courses.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.26.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.26.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.26.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.26.1.c Employ eye protection in compliance with Neb. Rev. Statute 79–715.
- STS.HS.26.1.d Employ the safe application of tools and machines.
- STS.HS.26.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.26.1.f Demonstrate proper handling and storing of materials and chemicals.

STS.HS.26.2 Execute accurate measurements using woodworking measurement and layout tools.

- STS.HS.26.2.a Identify types of woodworking measurement and layout tools.
- STS.HS.26.2.b Categorize woodworking measurement and layout tools by use.
- STS.HS.26.2.c Demonstrate the accurate use of measurement and layout tools to 1/16" precision.

MANUFACTURING PRODUCTION – WOODS (cont.)

STS.HS.26.3 Solve math functions and formulas to complete woodworking job/workplace tasks.

STS.HS.26.3.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.26.3.b Apply basic arithmetic operations.

STS.HS.26.3.c Solve decimal and fraction conversions.

STS.HS.26.4 Identify career opportunities in the wood manufacturing industry.

STS.HS.26.4.a Describe work behaviors needed to be employable.

STS.HS.26.4.b Describe appropriate work behavior that meets or exceeds wood manufacturing industry standards.

STS.HS.26.4.c Identify the education, certification, or licensure required in wood manufacturing careers.

STS.HS.26.4.d Identify the value that may be added to the community by wood manufacturing professionals.

STS.HS.26.4.e Identify the industry standard compensation for a wood manufacturing professional.

STS.HS.26.5 Demonstrate the use of wood manufacturing communications.

STS.HS.26.5.a Define wood manufacturing terminology.

STS.HS.26.5.b Estimate manufacturing timelines based on criteria.

STS.HS.26.5.c Utilize business and interpersonal communication appropriate to the work environment.

MANUFACTURING PRODUCTION – WOODS (cont.)

STS.HS.26.6 Select the materials, tools, machines, and processes required to manufacture a wood product.

STS.HS.26.6.a	Identify the origins, characteristics, and properties of softwoods.
STS.HS.26.6.b	Identify the origins, characteristics, and properties of hardwoods.
STS.HS.26.6.c	Categorize fasteners by their industry standard applications.
STS.HS.26.6.d	Differentiate between various types of mechanical and chemical fasteners.
STS.HS.26.6.e	Estimate amount of materials and supplies needed for a wood product.
STS.HS.26.6.f	Explain the operation and application of common industry finishes.
STS.HS.26.6.g	Assess potential environmental and health impacts of using specific materials or processes.
STS.HS.26.6.h	Determine the correct tools and machines needed to produce a specific wood product.

STS.HS.26.7 Manufacture a production level product that uses wood as its primary material.

STS.HS.26.7.a	Interpret plans, drawings, and specifications to process materials.
STS.HS.26.7.b	Coordinate the standard operation and application of tools and machines along the manufacturing process.
STS.HS.26.7.c	Plan and apply the type of materials, fasteners, adhesives, and finishes required to manufacture a specific product.
STS.HS.26.7.d	Critique a finished product.
STS.HS.26.7.e	Appraise the manufacturing process for streamlining opportunities.

MANUFACTURING PRODUCTION – METALS

COURSE DESCRIPTION

In the capstone course for the metal manufacturing track, students will utilize tools and equipment to produce parts and projects within specifications. Students will use knowledge and skills from previous manufacturing courses.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.24.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.24.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.24.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.24.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79–715.
STS.HS.24.1.d	Employ the safe application of tools and machines.
STS.HS.24.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.24.1.f	Demonstrate proper handling and storing of materials and chemicals.

STS.HS.24.2 Execute accurate measurements using metals measurement and layout tools.

STS.HS.24.2.a	Identify types of metals measurement and layout tools.
STS.HS.24.2.b	Categorize metals measurement and layout tools by use.
STS.HS.24.2.c	Demonstrate the accurate use of measurement and layout tools to 0.010" or 0.001" precision or 1mm precision.

MANUFACTURING PRODUCTION – METALS (cont.)

STS.HS.24.3 Solve math functions and formulas to complete metals job/workplace tasks.

STS.HS.24.3.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.24.3.b Apply basic arithmetic operations.

STS.HS.24.3.c Solve decimal and fraction conversions.

STS.HS.24.4 Identify career opportunities in the metals manufacturing industry.

STS.HS.24.4.a Describe work behaviors needed to be employable.

STS.HS.24.4.b Describe appropriate work behavior that meets or exceeds metals manufacturing industry standards.

STS.HS.24.4.c Identify the education, certification, or licensure required in metals manufacturing careers.

STS.HS.24.4.d Identify the value that may be added to the community by metals manufacturing professionals.

STS.HS.24.4.e Identify the industry standard compensation for a metals manufacturing professional.

STS.HS.23.5 Demonstrate use of metal manufacturing communications.

STS.HS.24.5.a Define metal manufacturing terminology.

STS.HS.24.5.b Estimate metal manufacturing timelines based on criteria.

STS.HS.24.5.c Demonstrate business and interpersonal communication appropriate to the work environment.

MANUFACTURING PRODUCTION – METALS (cont.)

STS.HS.24.6 Describe the materials, tools, machines, and processes required to manufacture a metal product.

STS.HS.24.6.a Identify the characteristics, properties, and origin of diverse metals.

STS.HS.24.6.b Differentiate between additive and subtractive manufacturing.

STS.HS.24.6.c Categorize fasteners by their industry standard applications.

STS.HS.24.6.d Differentiate between various types of mechanical fasteners.

STS.HS.24.6.e Determine feed rate and speed settings for a material and process.

STS.HS.24.6.f Explain the operation and application of common industry chemicals.

STS.HS.24.6.g Assess potential environmental and health impacts of using specific materials and/or processes.

STS.HS.24.6.h Estimate amount of materials and supplies needed for a product.

STS.HS.24.6.i Determine the correct tools, machines and processes needed to produce a specific metal product.

STS.HS.24.7 Produce a production-level metalworking project.

STS.HS.24.7.a Interpret plans, drawings, and specifications to process materials.

STS.HS.24.7.b Coordinate the standard operation and application of tools and machines along the manufacturing process.

STS.HS.24.7.c Apply the type of materials, processes, and finishes required to manufacture a specific metal product.

STS.HS.24.7.d Critique a finished product.

STS.HS.24.7.e Appraise the manufacturing process for streamlining opportunities.

MANUFACTURING PRODUCTION – PLASTICS

COURSE DESCRIPTION

In the capstone course for the plastic manufacturing track, students will utilize tools and equipment to produce parts and projects within specifications. Students will use the knowledge and skills from previous manufacturing courses.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.25.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.25.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.25.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.25.1.c Employ eye protection in compliance with Neb. Rev. Statute 79–715.
- STS.HS.25.1.d Employ the safe application of tools and machines.
- STS.HS.25.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.25.1.f Demonstrate proper handling and storing of materials and chemicals.

STS.HS.25.2 Execute accurate measurements using plastics measurement and layout tools.

- STS.HS.25.2.a Identify types of plastics measurement and layout tools.
- STS.HS.25.2.b Categorize plastics measurement and layout tools by use.
- STS.HS.25.2.c Demonstrate the accurate use of measurement and layout tools to 1/16" precision.

MANUFACTURING PRODUCTION – PLASTICS (cont.)

STS.HS.25.3 Solve math functions and formulas to complete plastics job/workplace tasks.

STS.HS.25.3.a Identify whole numbers, decimals, fractions, and complex numbers used in the workplace.

STS.HS.25.3.b Apply basic arithmetic operations used in the workplace.

STS.HS.25.3.c Solve decimal and fraction conversions used in the workplace.

STS.HS.25.4 Identify career opportunities in the plastics manufacturing industry.

STS.HS.25.4.a Describe work behaviors needed to be employable.

STS.HS.25.4.b Describe appropriate work behavior that meets or exceeds plastics manufacturing industry standards.

STS.HS.25.4.c Identify the education, certification, or licensure required in plastics manufacturing careers.

STS.HS.25.4.d Identify the value that may be added to the community by plastics manufacturing professionals.

STS.HS.25.5 Demonstrate the use of plastic manufacturing communications.

STS.HS.25.5.a Define plastic manufacturing terminology.

STS.HS.25.5.b Estimate manufacturing timelines based on criteria.

STS.HS.25.5.c Utilize business and interpersonal communication appropriate to the plastics manufacturing work environment.

STS.HS.25.4.d Identify the industry standard compensation for a plastics manufacturing professional.

MANUFACTURING PRODUCTION – PLASTICS (cont.)

STS.HS.25.6 Select the materials, tools, machines, and processes required to manufacture a plastic product.

STS.HS.25.6.a Identify the origins, characteristics, and properties of various types of plastics.

STS.HS.25.6.b Categorize fasteners by their industry standard applications.

STS.HS.25.6.c Differentiate between various types of mechanical and chemical fasteners.

STS.HS.25.6.d Estimate amount of materials and supplies needed for a plastic product.

STS.HS.25.6.e Explain the operation and application of common industry finishes.

STS.HS.25.6.f Assess potential environmental and health impacts of using specific materials or processes.

STS.HS.25.6.g Determine the correct tools and machines needed to produce a specific plastic product.

STS.HS.25.7 Manufacture a production level product that uses plastic as its primary material.

STS.HS.25.7.a Interpret plans, drawings, and specifications to process materials.

STS.HS.25.7.b Coordinate the standard operation and application of tools and machines along the manufacturing process.

STS.HS.25.7.c Plan and apply the type of materials, fasteners, adhesives, and finishes required to manufacture a specific product.

STS.HS.25.7.d Critique a finished product.

STS.HS.25.7.e Appraise the manufacturing process for streamlining opportunities.

INTRODUCTION TO MECHATRONICS

COURSE DESCRIPTION

Mechatronics combines the industrial skills of mechanics, electronics, hydraulics, and computer-based controls.

Target Grades: 11-12.

STANDARDS AND INDICATORS:

STS.HS.18.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.18.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.18.1.b Employ eye protection in compliance with Neb. Rev. Statute 79–715.

STS.HS.18.1.c Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.18.1.d Employ the safe application of tools and machines.

STS.HS.18.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.18.1.f Demonstrate proper handling and storing of materials.

STS.HS.18.2 Identify career opportunities in mechatronics.

STS.HS.18.2.a Describe work behaviors needed to be employable.

STS.HS.18.2.b Identify employment trends in mechatronics.

STS.HS.18.2.c Identify the responsibilities and characteristics of professionals in mechatronics.

STS.HS.18.2.d Identify the training, education, certification, and licensing requirements for careers in mechatronics.

INTRODUCTION TO MECHATRONICS (cont.)

STS.HS.18.3 Solve math functions and formulas to complete mechatronics job or workplace tasks.

STS.HS.18.3.a Identify whole numbers, decimals, fractions, and complex numbers.

STS.HS.18.3.b Apply basic algebraic operations.

STS.HS.18.3.c Interpret scientific notation.

STS.HS.18.3.d Interpret engineering notation.

STS.HS.18.4 Explain mechatronics systems.

STS.HS.18.4.a Explain the theory and applications of hydraulics.

STS.HS.18.4.b Explain the theory and application of electronics.

STS.HS.18.4.c Explain the theory and application of pneumatics.

STS.HS.18.4.d Explain the theory and applications of control systems.

STS.HS.18.4.e Explain the theory and applications of computer systems.

STS.HS.18.5 Demonstrate use of mechatronics communications.

STS.HS.18.5.a Define mechatronics terminology.

STS.HS.18.5.b Interpret the language of mechatronics.

STS.HS.18.5.c Interpret electrical schematics, spec sheets, mechanical drawings, and hydraulic circuit diagrams.

STS.HS.18.5.d Employ business and interpersonal communication appropriate to the work environment.

INTRODUCTION TO MECHATRONICS (cont.)

STS.HS.18.6 Construct a mechatronic device based upon given specifications.

STS.HS.18.6.a Employ measurement tools.

STS.HS.18.6.b Select fasteners to mount components.

STS.HS.18.6.c Employ appropriate wires or tubing to make correct electrical, hydraulic, or pneumatic connections.

STS.HS.18.6.d Employ best practices in laying out wires and tubes for neatness, security, and safe operation.

STS.HS.18.6.e Adjust and calibrate subsystems by using interdisciplinary skills.

STS.HS.18.6.f Explain construction, electrical, and mechanical blueprints.

STS.HS.18.7 Integrate instrumentation to identify and troubleshoot problems in a mechatronics system.

STS.HS.18.7.a Employ meters to test resistance, voltage, and current to assess electrical equipment.

STS.HS.18.7.b Perform precision measuring on mechanical, hydraulic, electronic, or pneumatic components.

STS.HS.18.7.c Utilize data gained from instrumentation to develop troubleshooting options.

ADVANCED ELECTRONICS

COURSE DESCRIPTION

This capstone course focuses on circuitry diagnostics and the application and design of circuits using the principles of analog and digital electronics. Students will learn safe practices with electronics and the importance of electronics in industry and society.

Target Grades: 11-12.

STANDARDS AND INDICATORS:

STS.HS.1.1 Apply safety principles, practices, philosophy and guidelines to the work environment.

STS.HS.1.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.1.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.1.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79-715.
STS.HS.1.1.d	Carry out the safe application of tools and machines.
STS.HS.1.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.1.1.f	Demonstrate proper handling and storing of materials.

STS.HS.1.2 Investigate career opportunities in the electronics industry.

STS.HS.1.2.a	Identify responsibilities and characteristics of professionals in industry.
STS.HS.1.2.b	Describe work behaviors needed to be employable.
STS.HS.1.2.c	Identify the training, education, certification, and licensing requirements for various careers in the electronics industry.
STS.HS.1.2.d	Identify high-wage, high-demand, and high-skill electronics careers.

ADVANCED ELECTRONICS (cont.)

STS.HS.1.3 Employ electronic terminology, symbols, laws, and equipment.

STS.HS.1.3.a Identify proper electronic terminology and symbols.

STS.HS.1.3.b Compute and manipulate the Laws of Electronics (i.e., Ohms, Watts, Kirchhoff's).

STS.HS.1.3.c Identify and operate all basic electronic equipment.

STS.HS.1.4 Construct electronic circuits.

STS.HS.1.4.a Interpret, design, and synthesize electronic circuits.

STS.HS.1.4.b Explain the characteristics of AC Electricity and its components.

STS.HS.1.4.c Explain basic solid state fundamentals.

STS.HS.1.4.d Explain logic gate circuits.

STS.HS.1.4.e Troubleshoot and analyze electronic circuits.

ADVANCED MANUFACTURING & FABRICATION – WOODS

COURSE DESCRIPTION

This expanded learning course allows students to go beyond the woods manufacturing program of study. Students will use the most advanced equipment, including CNC, to produce projects exceeding industry standards.

Target Grades: 11-12.

STANDARDS AND INDICATORS:

STS.HS.4.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.4.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.4.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.4.1.c Employ eye protection in compliance with Neb. Rev. Statute 79–715.
- STS.HS.4.1.d Employ the safe application of tools and machines.
- STS.HS.4.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.4.1.f Demonstrate proper handling and storing of materials and chemicals.

STS.HS.4.2 Execute accurate measurements using precision wood measurement tools.

- STS.HS.4.2.a Identify types of precision measurement tools.
- STS.HS.4.2.b Categorize precision measurement tools by use.
- STS.HS.4.2.c Differentiate between measurement tools and layout tools.
- STS.HS.4.2.d Demonstrate the accurate use of measurement and layout tools to 1/64" precision.
- STS.HS.4.2.e Demonstrate the accurate use of measurement and layout tools to 0.5mm precision.

ADVANCED MANUFACTURING - WOODS (cont.)

STS.HS.4.3 Solve math functions and formulas to complete woodworking job or workplace tasks.

STS.HS.4.3.a	Identify whole numbers, decimals, fractions, and complex numbers.
STS.HS.4.3.b	Apply intermediate arithmetic operations.
STS.HS.4.3.c	Apply basic geometric operations.
STS.HS.4.3.d	Solve decimal or fraction conversions.
STS.HS.4.3.e	Solve metric or United States Customary System (USCS) conversions.

STS.HS.4.4 Identify career opportunities in the wood manufacturing industry.

STS.HS.4.4.a	Describe work behaviors needed to be employable.
STS.HS.4.4.b	Employ appropriate work behavior that meets or exceeds wood industry standards.
STS.HS.4.4.c	Explain the required education, certification, or licensure needed for a wood manufacturing career.
STS.HS.4.4.d	Analyze the value that may be added to the community by manufacturing professionals.
STS.HS.4.4.e	Explain the industry standard compensation for a wood manufacturing professional.

STS.HS.4.5 Apply manufacturing communications.

STS.HS.4.5.a	Define wood manufacturing terminology.
STS.HS.4.5.b	Generate a wood project proposal.
STS.HS.4.5.c	Estimate manufacturing timelines based on criteria.
STS.HS.4.5.d	Utilize business and interpersonal communication appropriate to the work environment.

ADVANCED MANUFACTURING - WOODS (cont.)

STS.HS.4.6 Assess the materials, tools, machines, and processes required to manufacture a wood product.

STS.HS.4.6.a	Identify the characteristics, properties, and origin of softwoods.
STS.HS.4.6.b	Identify the characteristics, properties, and origin of hardwoods.
STS.HS.4.6.c	Differentiate additive and subtractive manufacturing.
STS.HS.4.6.d	Identify fasteners by their industry standard applications.
STS.HS.4.6.e	Differentiate between various types of mechanical and chemical fasteners.
STS.HS.4.6.f	Estimate amount of materials and supplies needed for a product.
STS.HS.4.6.g	Determine feed rate and speed settings for a material and process.
STS.HS.4.6.h	Explain the operation and application of common wood industry finishes.
STS.HS.4.6.i	Assess potential environmental and health impacts of using specific materials or processes.
STS.HS.4.6.j	Determine the correct tools, machines, and processes needed to produce a specific wood product.

STS.HS.4.7 Manufacture a custom-level product that uses wood as its primary material.

STS.HS.4.7.a	Interpret plans, drawings, and specifications to process materials.
STS.HS.4.7.b	Coordinate the standard operation and application of tools and machines along the manufacturing process.
STS.HS.4.7.c	Plan and apply the type of materials, processes, and finishes required to manufacture a specific product.
STS.HS.4.7.d	Critique a finished product.
STS.HS.4.7.e	Appraise the manufacturing process for streamlining opportunities.

ADVANCED MANUFACTURING & FABRICATION – METALS

COURSE DESCRIPTION

This expanded learning course allows students to go beyond the metals manufacturing program of study. Students will use the most advanced equipment, including CNC, to produce projects exceeding industry standards.

Target Grades: 11-12.

STANDARDS AND INDICATORS:

STS.HS.2.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.2.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.2.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.2.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79–715.
STS.HS.2.1.d	Employ the safe application of tools and machines.
STS.HS.2.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.2.1.f	Demonstrate proper handling and storing of materials and chemicals.

STS.HS.2.2 Execute accurate measurements using precision metal measurement tools.

STS.HS.2.2.a	Identify types of precision measurement tools.
STS.HS.2.2.b	Categorize precision measurement tools by use.
STS.HS.2.2.c	Differentiate between measurement tools and layout tools.
STS.HS.2.2.d	Demonstrate the accurate use of measurement and layout tools to 1/64" precision or 0.5mm precision.

ADVANCED MANUFACTURING - METALS (cont.)

STS.HS.2.3 Solve math functions and formulas to complete metals job or workplace tasks.

STS.HS.2.3.a	Identify whole numbers, decimals, fractions, and complex numbers.
STS.HS.2.3.b	Apply intermediate arithmetic operations.
STS.HS.2.3.c	Apply basic geometric operations.
STS.HS.2.3.d	Solve decimal or fraction conversions.
STS.HS.2.3.d	Solve metric or United States Customary System (USCS) conversions.

STS.HS.2.4 Identify career opportunities in the metal manufacturing industry.

STS.HS.2.4.a	Describe work behaviors needed to be employable.
STS.HS.2.4.b	Employ appropriate work behavior that meets or exceeds metal industry standards.
STS.HS.2.4.d	Explain the required education, certification, or licensure needed for a metal manufacturing career.
STS.HS.2.4.e	Analyze the value that may be added to the community by manufacturing professionals.
STS.HS.2.4.f	Explain the industry standard compensation for a metal manufacturing professional.

STS.HS.2.5 Apply manufacturing communications.

STS.HS.2.5.a	Define metal manufacturing terminology.
STS.HS.2.5.b	Generate a metal project proposal.
STS.HS.2.5.c	Estimate manufacturing timelines based on criteria.
STS.HS.2.5.d	Utilize business and interpersonal communication appropriate to the work environment.

ADVANCED MANUFACTURING - METALS (cont.)

STS.HS.2.6 Describe the materials, tools, machines, and processes required to manufacture a metal product.

STS.HS.2.6.a	Identify the various types of metals and their characteristics.
STS.HS.2.6.b	Differentiate additive and subtractive manufacturing.
STS.HS.2.6.c	Identify fasteners by their industry standard applications.
STS.HS.2.6.d	Differentiate between various types of mechanical and chemical fasteners.
STS.HS.2.6.e	Estimate amount of materials and supplies needed for a product.
STS.HS.2.6.f	Determine feed rate and speed settings for a material and process.
STS.HS.2.6.g	Explain the operation and application of common metal industry finishes.
STS.HS.2.6.h	Assess potential environmental and health impacts of using specific materials or processes.
STS.HS.2.6.i	Determine the correct tools, machines, and processes needed to produce a specific metal product.

STS.HS.2.7 Manufacture a custom-level product that uses metal as its primary material.

STS.HS.2.7.a	Interpret plans, drawings, and specifications to process materials.
STS.HS.2.7.b	Coordinate the standard operation and application of tools and machines along the manufacturing process.
STS.HS.2.7.c	Plan and apply the type of materials, processes, and finishes required to manufacture a specific product.
STS.HS.2.7.d	Critique a finished product.
STS.HS.2.7.e	Appraise the manufacturing process for streamlining opportunities.

ADVANCED MANUFACTURING & FABRICATION – PLASTICS

COURSE DESCRIPTION

This expanded learning course allows students to go beyond the plastics manufacturing program of study. Students will use the most advanced equipment, including CNC, to produce projects exceeding industry standards.

Target Grades: 11-12.

STANDARDS AND INDICATORS:

STS.HS.3.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.3.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.3.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.3.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79–715.
STS.HS.3.1.d	Employ the safe application of tools and machines.
STS.HS.3.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.3.1.f	Demonstrate proper handling and storing of materials and chemicals.

STS.HS.3.2 Execute accurate measurements using precision plastic measurement tools.

STS.HS.3.2.a	Identify types of precision measurement tools.
STS.HS.3.2.b	Categorize precision measurement tools by use.
STS.HS.3.2.c	Differentiate between measurement tools and layout tools.
STS.HS.3.2.d	Demonstrate the accurate use of measurement and layout tools to 1/64" precision or 0.5mm precision.

ADVANCED MANUFACTURING - PLASTICS (cont.)

STS.HS.3.3 Solve math functions and formulas to complete plastics job or workplace tasks.

- STS.HS.3.3.a Identify whole numbers, decimals, fractions, and complex numbers.
- STS.HS.3.3.b Apply intermediate arithmetic operations.
- STS.HS.3.3.c Apply basic geometric operations.
- STS.HS.3.3.d Solve decimal or fraction conversions.
- STS.HS.3.3.e Solve metric or United States Customary System (USCS) conversions.

STS.HS.3.4 Identify career opportunities in the plastics manufacturing industry.

- STS.HS.3.4.a Describe work behaviors needed to be employable.
- STS.HS.3.4.b Employ appropriate work behavior that meets or exceeds plastics industry standards.
- STS.HS.3.4.c Explain the required education, certification, or licensure needed for a plastics manufacturing career.
- STS.HS.3.4.d Analyze the value that may be added to the community by manufacturing professionals.
- STS.HS.3.4.e Explain the industry standard compensation for a plastics manufacturing professional.

STS.HS.3.5 Apply manufacturing communications.

- STS.HS.3.5.a Define plastic manufacturing terminology.
- STS.HS.3.5.b Generate a plastic project proposal.
- STS.HS.3.5.c Estimate manufacturing timelines based on criteria.
- STS.HS.3.5.d Utilize business and interpersonal communication appropriate to the work environment.

ADVANCED MANUFACTURING - PLASTICS (cont.)

STS.HS.3.6 Describe the materials, tools, machines, and processes required to manufacture a plastic product.

STS.HS.3.6.a	Identify the various types of plastics and their characteristics.
STS.HS.3.6.b	Differentiate additive and subtractive manufacturing.
STS.HS.3.6.c	Identify fasteners by their industry standard applications.
STS.HS.3.6.d	Differentiate between various types of mechanical and chemical fasteners.
STS.HS.3.6.e	Estimate amount of materials and supplies needed for a product.
STS.HS.3.6.f	Determine feed rate and speed settings for a material and process.
STS.HS.3.6.g	Explain the operation and application of common plastic industry finishes.
STS.HS.3.6.h	Assess potential environmental and health impacts of using specific materials or processes.
STS.HS.3.6.i	Determine the correct tools, machines, and processes needed to produce a specific plastic product.

STS.HS.3.7 Manufacture a custom-level product that uses plastic as its primary material.

STS.HS.3.7.a	Interpret plans, drawings, and specifications to process materials.
STS.HS.3.7.b	Coordinate the standard operation and application of tools and machines along the manufacturing process.
STS.HS.3.7.c	Plan and apply the type of materials, processes, and finishes required to manufacture a specific product.
STS.HS.3.7.d	Critique a finished product.
STS.HS.3.7.e	Appraise the manufacturing process for streamlining opportunities.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES

COURSE DESCRIPTION

This introductory course provides the skills and technical knowledge for a beginning student in areas of industry, safety, material, equipment, and process understanding. This entry level course helps students gain a foundation in all areas of Skilled and Technical Sciences including Architecture and Construction; Energy and Engineering; Manufacturing; and Transportation, Distribution, and Logistics.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.19.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.19.1.a Complete applicable safety assessment with 100% accuracy.

STS.HS.19.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.

STS.HS.19.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.

STS.HS.19.1.d Employ the safe application of tools and machines.

STS.HS.19.1.e Explain the main hazards that are possible in the lab setting.

STS.HS.19.1.f Demonstrate proper handling and storing of materials.

STS.HS.19.2 Identify career opportunities in Skilled and Technical Sciences areas.

STS.HS.19.2.a Identify responsibilities and characteristics of professionals in a skilled and technical sciences industry.

STS.HS.19.2.b Describe work behaviors needed to be employable in a skilled and technical sciences industry.

STS.HS.19.2.c Identify the training, education, certification, and licensing requirements for various careers in a skilled and technical sciences industry.

STS.HS.19.2.d Identify high wage, high demand, and high skill careers in skilled and technical sciences.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES (cont.)

STS.HS.19.3 Apply appropriate academic and technical skills to produce a product.

STS.HS.19.3.a Employ project-related math operations and formulas.

STS.HS.19.3.b Employ effective verbal, written, and/or visual communication skills.

STS.HS.19.3.c Define course content vocabulary.

STS.HS.19.3.d Conduct the accurate use of measurement tools

STS.HS.19.4 Identify the materials, tools, machines, and equipment required to produce a product.

STS.HS.19.4.a Identify types of materials to be used for various products.

STS.HS.19.4.b Identify types of fasteners for various products.

STS.HS.19.4.c Identify types of adhesives for various products.

STS.HS.19.4.d Identify types of finishes for various products.

STS.HS.19.4.e Identify the correct tools, machines, and equipment appropriate for a specific operation or process.

STS.HS.19.5 Produce a product(s).

STS.HS.19.5.a Interpret working drawings of a product to be produced.

STS.HS.19.5.b Select the proper materials adhesives, fasteners and finishes for a product.

STS.HS.19.5.c Demonstrate the proper tool, machine, or equipment selection and usage for each corresponding operation needed to produce a product.

STS.HS.19.5.d Execute a plan of procedure.

WELDING 1

COURSE DESCRIPTION

This course introduces students to arc welding and cutting processes. Emphasis is placed on welding safety, basic welding procedures, and career opportunities in welding. Students will have an opportunity to learn and practice various welding positions. Production of a small product will be incorporated.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.36.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.36.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.36.1.b Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.36.1.c Employ eye protection in compliance with Neb. Rev. Statute 79-715.
- STS.HS.36.1.d Employ the safe application of tools and machines.
- STS.HS.36.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.36.1.f Demonstrate proper handling and storing of materials.

STS.HS.36.2 Explain career opportunities in the welding industry.

- STS.HS.36.2.a Describe work behaviors needed to be employable.
- STS.HS.36.2.b Identify employment trends in the welding industry.
- STS.HS.36.2.c Identify the responsibilities and characteristics of professionals in the welding industry.
- STS.HS.36.2.d Identify the training, education, certification and licensing requirements for careers in the welding industry.

WELDING 1 (cont.)

STS.HS.36.3 Explain the use of welding communications.

STS.HS.36.3.a Define welding terminology.

STS.HS.36.3.b Measure metric and imperial measurements with an accuracy of a millimeter or 1/16 of an inch.

STS.HS.36.3.c Explain mechanical drawings according to the American National Standards Institute (ANSI).

STS.HS.36.3.d Explain welding symbols according to the AWS.

STS.HS.36.3.e Explain information from a welding procedure sheet.

STS.HS.36.4 Determine the materials, tools, and equipment needed to weld.

STS.HS.36.4.a Identify tools and their use in welding.

STS.HS.36.4.b Identify welding equipment and proper set up procedures according to the manufacturer's recommendations.

STS.HS.36.4.c Identify the material used in welding.

STS.HS.36.4.d Identify the filler material used in welding.

STS.HS.36.4.e Determine types of fasteners, adhesives, and finishes used for welding.

STS.HS.36.5 Perform metal cutting operations.

STS.HS.36.5.a Perform an abrasive cutting procedure.

STS.HS.36.5.b Perform mechanical cutting procedure.

STS.HS.36.5.c Perform a hot (flame) source cutting operation.

STS.HS.36.5.d Perform an arc cutting operation.

WELDING 1 (cont.)

STS.HS.36.6 Join material using any methods of welding procedure in the flat and horizontal positions.

STS.HS.36.6.a	Create a pad of surface welds with no welding defects according to AWS standards.
STS.HS.36.6.b	Create groove joints with no welding defects according to AWS standards.
STS.HS.36.6.c	Create fillet welds with no welding defects according to AWS standards.
STS.HS.36.6.d	Produce a product with the welding processes that are available.

WELDING 2

COURSE DESCRIPTION

This capstone course is a continuation of learning the knowledge and skills of the welding industry. Students will learn welding safety, communications, material and tool usage, and welding positions. Students will apply this knowledge and skill to produce a product.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.37.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

- STS.HS.37.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.37.1.b Use appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.37.1.c Use eye protection in compliance with Neb. Rev. Statute 79-715.
- STS.HS.37.1.d Carry out the safe application of tools and machines.
- STS.HS.37.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.37.1.f Demonstrate proper handling and storing of materials.

STS.HS.37.2 Investigate career opportunities in the welding industry.

- STS.HS.37.2.a Describe work behaviors needed to be employable.
- STS.HS.37.2.b Identify employment trends in the welding industry.
- STS.HS.37.2.c Identify the responsibilities and characteristics of professionals in the welding industry.
- STS.HS.37.2.d Identify the training, education, certification and licensing requirements for careers in the welding industry.

WELDING 2 (cont.)

STS.HS.37.3 Demonstrate the use of welding communications.

STS.HS.37.3.a	Explain welding terminology.
STS.HS.37.3.b	Describe a quality weld according to the American Welding Society (AWS).
STS.HS.37.3.c	Measure metric and imperial measurements within an accuracy of a millimeter or 1/32 of an inch.
STS.HS.37.3.d	Explain mechanical drawings according to the American National Standards Institute (ANSI).
STS.HS.37.3.e	Explain welding symbols according to the AWS.
STS.HS.37.3.f	Solve mathematical functions used in welding.
STS.HS.37.3.g	Interpret information from a welding procedure sheet.

STS.HS.37.4 Identify the materials, tools, and equipment needed to weld.

STS.HS.37.4.a	Identify tools and their use in welding.
STS.HS.37.4.b	Identify welding equipment and proper set up procedures according to the manufacturers' recommendations.
STS.HS.37.4.c	Identify the material used in welding.
STS.HS.37.4.d	Identify the filler material used in welding.
STS.HS.37.4.e	Identify types of fasteners, adhesives, and finishes used for welding.

WELDING 2 (cont.)

STS.HS.37.5 Perform metal cutting operations.

STS.HS.37.5.a Perform an abrasive cutting procedure.

STS.HS.37.5.b Perform a mechanical cutting procedure.

STS.HS.37.5.c Perform a hot (flame) source cutting operation.

STS.HS.37.5.d Perform an arc cutting operation.

STS.HS.37.5.e Perform an automated cutting operation.

STS.HS.37.6 Perform welding procedures in the flat, horizontal, and vertical positions.

STS.HS.37.6.a Create a pad of surface welds with no welding defects according to the AWS.

STS.HS.37.6.b Create groove joints with no welding defects according to AWS standards.

STS.HS.37.6.c Create fillet welds with no welding defects according to AWS standards.

STS.HS.37.7 Produce a product with welding processes.

STS.HS.37.7.a Use a drawing with welding symbols according to AWS.

STS.HS.37.7.b Cut the materials according to the technical drawing.

STS.HS.37.7.c Weld the materials according to the technical drawing.

STS.HS.37.7.d Finish the materials according to the technical drawing.

WELDING 3

COURSE DESCRIPTION

This is a project-oriented extended learning course that is designed to prepare a student for postsecondary and/or entry into industry. An emphasis on safety and welding operations will be covered. This course will assist the student going into a welding career.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.38.1 Apply safety principles, practices, philosophy and guidelines to the work environment.

- STS.HS.38.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.38.1.b Use appropriate Personal Protective Equipment (PPE) while in the lab setting.
- STS.HS.38.1.c Use eye protection in compliance with Neb. Rev. Statute 79-715.
- STS.HS.38.1.d Carry out the safe application of tools and machines.
- STS.HS.38.1.e Explain the main hazards that are possible in the lab setting.
- STS.HS.38.1.f Demonstrate proper handling and storing of materials.

STS.HS.38.2 Identify career opportunities in the welding industry.

- STS.HS.38.2.a Describe work behaviors needed to be employable.
- STS.HS.38.2.b Identify employment trends in the welding industry.
- STS.HS.38.2.c Identify the responsibilities and characteristics of professionals in the welding industry.
- STS.HS.38.2.d Identify the training, education, certification, and licensing requirements for careers in the welding industry.

WELDING 3 (cont.)

STS.HS.38.3 Demonstrate the use of welding communications.

STS.HS.38.3.a	Explain welding terminology.
STS.HS.38.3.b	Identify a quality weld according to the American Welding Society (AWS).
STS.HS.38.3.c	Measure metric and imperial measurements within an accuracy of a millimeter or 1/64 of an inch.
STS.HS.38.3.d	Explain mechanical drawings according to the American National Standards Institute (ANSI).
STS.HS.38.3.e	Explain welding symbols according to the AWS.
STS.HS.38.3.f	Solve mathematical functions used in welding.
STS.HS.38.3.g	Explain information from a welding procedure sheet.

STS.HS.38.4 Identify the materials, tools, fasteners, and equipment needed to weld.

STS.HS.38.4.a	Identify tools and their use in welding.
STS.HS.38.4.b	Identify welding equipment and proper set up procedures according to the manufacturer's recommendations.
STS.HS.38.4.c	Identify the material used in welding.
STS.HS.38.4.d	Identify the filler material used in welding.
STS.HS.38.4.e	Determine types of fasteners, adhesives, and finishes used for welding.
STS.HS.38.4.f	Identify automated or emerging technologies in welding.

WELDING 3 (cont.)

STS.HS.38.5 Perform metal cutting operations.

STS.HS.38.5.a Perform an abrasive cutting procedure.

STS.HS.38.5.b Perform a mechanical cutting procedure.

STS.HS.38.5.c Perform a hot (flame) source cutting operation.

STS.HS.38.5.d Perform an arc cutting operation.

STS.HS.38.5.e Perform an automated cutting operation.

STS.HS.38.6 Join material using any methods of welding procedure in the flat, horizontal, vertical, and overhead positions.

STS.HS.38.6.a Create a pad of surface welds with no welding defects according to the AWS.

STS.HS.38.6.b Create groove joints with no welding defects according to AWS standards.

STS.HS.38.6.c Create fillet welds with no welding defects according to AWS standards.

STS.HS.38.6.d Perform an AWS standard bend test.

STS.HS.38.7 Produce a product with welding processes that are available.

STS.HS.38.7.a Create a drawing with welding symbols according to AWS.

STS.HS.38.7.b Perform mathematical calculations to estimate the cost of materials for the product.

STS.HS.38.7.c Produce and finish the product to specifications.

INTRODUCTION TO TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

COURSE DESCRIPTION

This course will introduce students to the basics of transportation, distribution, and logistics (TDL). Students will learn how the supply chain of products and materials operate to keep industry running and consumer products available.

Target Grades 9-11.

STANDARDS AND INDICATORS:

STS.HS.20.1 Apply safety principles, practices, philosophy and guidelines to the work environment.

- STS.HS.20.1.a Complete safety assessments with 100% accuracy.
- STS.HS.20.1.b Employ the requirements of safety glasses and other personal protective equipment (PPE).
- STS.HS.20.1.c Employ the safe use of tools, machines, and equipment in alignment with industry standards to maintain a safe workplace.
- STS.HS.20.1.d Describe the role of government agencies in providing a safe workplace.

STS.HS.20.2 Identify career opportunities in the transportation, distribution, and logistics (TDL) industry.

- STS.HS.20.2.a Identify the responsibilities and characteristics of professionals in the TDL industry.
- STS.HS.20.2.b Identify employment trends in the TDL industry.
- STS.HS.20.2.c Identify the training, education, certification, and licensing requirements for various careers in the TDL industry.

INTRODUCTION TO TRANSPORTATION, DISTRIBUTION, AND LOGISTICS (cont.)

STS.HS.20.3 Analyze the segments and functions of the TDL industry.

STS.HS.20.a	Describe the five modes of transportation used to distribute people and products.
STS.HS.20.b	Compare different cargo types and the modes of transportation typically used for each.
STS.HS.20.c	Identify the individual systems that combine to create the TDL industry.
STS.HS.20.d	Explain how the individual systems that combine to create the TDL industry function together.

STS.HS.20.4 Explain the purpose and components of transportation logistics.

STS.HS.20.4.a	Explain dispatch and the purpose of tracking products as they are transported throughout the supply chain.
STS.HS.20.4.b	Describe the components that impact transportation logistics (i.e., routing, scheduling, equipment, operator, etc.).
STS.HS.20.4.c	Explain the different types of shipping documentation and terms.
STS.HS.20.4.d	Describe strategic, tactical, and systems planning.

DISTRIBUTION AND LOGISTICS

COURSE DESCRIPTION

This intermediate course is a study of the acquisition, storage, use, packaging, transportation, and distribution of materials and products. It showcases all of the steps necessary to take raw materials and produce a product.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.12.1 Explain career opportunities in the transportation industry.

STS.HS.12.1.a	Identify the responsibilities and characteristics of professionals in the transportation industry.
STS.HS.12.1.b	Identify employment trends in the transportation industry.
STS.HS.12.1.c	Identify high-wage, high-demand, and high-skill careers in the transportation, distribution, and Logistics (TDL) industry.
STS.HS.12.1.d	Identify work behaviors needed to be employable.
STS.HS.12.1.e	Identify the training, education, certification, and licensing requirements for various careers in TDL.

STS.HS.12.2 Explain the segments and functions of the TDL industry.

STS.HS.12.2.a	Explain order processing, receiving, storage, retrieval, packaging, and shipping of a product in the global supply chain logistics life cycle.
STS.HS.12.2.b	Identify the role of product receiving in the global supply chain logistics life cycle.
STS.HS.12.2.c	Identify the role of product storage and retrieval in the global supply chain logistics life cycle.
STS.HS.12.2.d	Identify the role of order processing in the global supply chain logistics life cycle.
STS.HS.12.2.e	Explain inventory control principles.
STS.HS.12.2.f	Explain distribution and distributorships.

DISTRIBUTION AND LOGISTICS (cont.)

STS.HS.12.3 Explain the purpose and components of transportation logistics.

STS.HS.12.3.a	Explain dispatch and the purpose of tracking of products as they are transported throughout the supply chain.
STS.HS.12.3.b	Describe the components that impact transportation logistics (i.e. routing, scheduling, equipment, operator, etc.).
STS.HS.12.3.c	Explain the different types of shipping documentation and terms.
STS.HS.12.3.d	Describe strategic, tactical, and systems planning.

BUSINESS LOGISTICS

COURSE DESCRIPTION

This capstone course is an in-depth study of the logistics of a business operation as it relates to transportation and distribution. Students will learn about order processing, receiving, storage, retrieval, packaging, and shipping of materials and products.

Target Grades 11-12.

STANDARDS AND INDICATORS:

STS.HS.8.1 Identify career opportunities in the transportation, distribution, and logistics (TDL) industry.

- STS.HS.8.1.a Identify the most common TDL careers and related fields of employment.
- STS.HS.8.1.b Identify the traits and skills employers look for in their employees.
- STS.HS.8.1.c Identify the training, education, certification, and licensing requirements for various careers in the TDL industry.

STS.HS.8.2 Identify the segments and functions of the TDL industry.

- STS.HS.8.2.a Compare the different types of cargo with the different modes of transportation.
- STS.HS.8.2.b Explain order processing, receiving, storage, retrieval, packaging, and shipping of a product in the global supply chain logistics life cycle.

STS.HS.8.3 Explain the purpose and components of transportation logistics.

- STS.HS.8.3.a Explain dispatch.
- STS.HS.8.3.b Explain the purpose of tracking of products as they are transported throughout t he supply chain.
- STS.HS.8.3.c Identify the components that impact transportation logistics (i.e., routing, scheduling, equipment, operator, etc.).
- STS.HS.8.3.d Explain types of shipping documentation and terminology.
- STS.HS.8.3.e Explain strategic, tactical, and systems planning.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES

COURSE DESCRIPTION

This introductory course provides the skills and technical knowledge for a beginning student in areas of industry, safety, material, equipment, and process understanding. This entry level course helps students gain a foundation in all areas of Skilled and Technical Sciences including Architecture and Construction; Energy and Engineering; Manufacturing; and Transportation, Distribution, and Logistics.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.19.1 Apply safety principles, practices, philosophy, and guidelines to the work environment.

STS.HS.19.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.19.1.b	Employ appropriate Personal Protective Equipment (PPE) while in the lab setting.
STS.HS.19.1.c	Employ eye protection in compliance with Neb. Rev. Statute 79-715.
STS.HS.19.1.d	Employ the safe application of tools and machines.
STS.HS.19.1.e	Explain the main hazards that are possible in the lab setting.
STS.HS.19.1.f	Demonstrate proper handling and storing of materials.

STS.HS.19.2 Identify career opportunities in Skilled and Technical Sciences areas.

STS.HS.19.2.a	Identify responsibilities and characteristics of professionals in a skilled and technical sciences industry.
STS.HS.19.2.b	Describe work behaviors needed to be employable in a skilled and technical sciences industry.
STS.HS.19.2.c	Identify the training, education, certification, and licensing requirements for various careers in a skilled and technical sciences industry.
STS.HS.19.2.d	Identify high wage, high demand, and high skill careers in skilled and technical sciences.

INTRODUCTION TO SKILLS AND TECHNICAL SCIENCES (cont.)

STS.HS.19.3 Apply appropriate academic and technical skills to produce a product.

STS.HS.19.3.a Employ project-related math operations and formulas.

STS.HS.19.3.b Employ effective verbal, written, and/or visual communication skills.

STS.HS.19.3.c Define course content vocabulary.

STS.HS.19.3.d Conduct the accurate use of measurement tools

STS.HS.19.4 Identify the materials, tools, machines, and equipment required to produce a product.

STS.HS.19.4.a Identify types of materials to be used for various products.

STS.HS.19.4.b Identify types of fasteners for various products.

STS.HS.19.4.c Identify types of adhesives for various products.

STS.HS.19.4.d Identify types of finishes for various products.

STS.HS.19.4.e Identify the correct tools, machines, and equipment appropriate for a specific operation or process.

STS.HS.19.5 Produce a product(s).

STS.HS.19.5.a Interpret working drawings of a product to be produced.

STS.HS.19.5.b Select the proper materials adhesives, fasteners and finishes for a product.

STS.HS.19.5.c Demonstrate the proper tool, machine, or equipment selection and usage for each corresponding operation needed to produce a product.

STS.HS.19.5.d Execute a plan of procedure.

POWER EQUIPMENT

COURSE DESCRIPTION

This introductory course is designed to develop skills in the operation, service, maintenance, and repair of small gas engine and powered equipment. The material covered in this course will be an entryway to other transportation courses.

Target Grades 6-12.

STANDARDS AND INDICATORS:

STS.HS.28.1 Apply safety principles, practices, and guidelines to the work environment.

STS.HS.28.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.28.1.b	Identify and explain the use of personal protective equipment.
STS.HS.28.1.c	Describe proper use of a fire extinguisher.
STS.HS.28.1.d	Demonstrate power equipment battery safety best-practices.
STS.HS.28.1.e	Apply the safe use of tools, machines, and equipment in alignment with industry standards to maintain a safe workplace.
STS.HS.28.1.f	Describe the role of government agencies in providing a safe workplace.
STS.HS.28.1g	Describe the safe and environmental disposal of fluids.

STS.HS.28.2 Identify career opportunities in the Power Equipment industry.

STS.HS.28.2.a	List the most common power equipment careers and related fields of employment.
STS.HS.28.2.b	List the traits & skills employers look for in their employees.
STS.HS.28.2.c	Explain how to find job openings in the power equipment field & identify employment trends.
STS.HS.28.2.d	Explain the specialized tasks completed by each type of technician.
STS.HS.28.2.e	Explain the types of repair facilities.
STS.HS.28.2.f	Summarize the different systems used to pay technicians.
STS.HS.28.2.g	Identify the training, education, certification, and licensing requirements for various careers in the power equipment industry.

POWER EQUIPMENT (cont.)

STS.HS.28.3 Identify fundamentals of power equipment measurement and math.

STS.HS.28.3.a Measure power equipment parts and measurements using both English and metric measuring systems.

STS.HS.28.3.b Identify and use basic measuring tools.

STS.HS.28.3.c Solve power equipment problems using basic math skills.

STS.HS.28.4 Explain fundamentals of Power Equipment Service Information.

STS.HS.28.4.a Describe the different types of service information.

STS.HS.28.4.b Explain the different kinds of information and Illustrations used in service information.

STS.HS.28.4.c Utilize print and/or online service information.

STS.HS.28.4.d Explain how to read and use shop work orders.

STS.HS.28.4.e Describe how to order parts for repair.

STS.HS.28.5 Explain fundamentals of fasteners, gaskets, seals, and sealants used in Power Equipment.

STS.HS.28.5.a Identify commonly used power equipment fasteners.

STS.HS.28.5.b Select and use fasteners properly.

STS.HS.28.5.c Remove, select, and install gaskets, seals, and sealants correctly.

POWER EQUIPMENT (cont.)

STS.HS.28.6 Explain fundamentals of power equipment principles of engine operation.

STS.HS.28.6.a Explain simple engine operation.

STS.HS.28.6.b Describe four-stroke engine operation and explain the purpose of each stroke.

STS.HS.28.6.c Describe two-stroke engine operation and explain the principles of two-cycle operation.

STS.HS.28.6.d List the advantages and disadvantages of two-stroke and four-stroke engines.

STS.HS.28.7 Explain fundamentals of Power Equipment engine components and systems.

STS.HS.28.7.a Describe the function of major moving components (e.g., piston, crankshaft, camshaft, valves).

STS.HS.28.7.b Describe the fundamentals of power equipment fuel supply and air induction.

STS.HS.28.7.c Describe the fundamentals of Power Equipment Ignition Systems.

STS.HS.28.7.d Describe the fundamentals of power equipment lubrication Systems.

STS.HS.28.7.e Describe the fundamentals of Power Equipment Cooling Systems.

STS.HS.28.8 Demonstrate the fundamentals of power equipment engine disassembly, inspection and reassembly.

STS.HS.28.8.a List the steps involved in disassembling an engine.

STS.HS.28.8.b Explain how to inspect various engine parts for damage and wear.

STS.HS.28.8.c Describe the procedure for removing an engine from an implement.

STS.HS.28.8.d Explain how to inspect engines for problems.

STS.HS.28.8.e Demonstrate power equipment engine assembly.

POWER EQUIPMENT (cont.)

STS.HS.28.9 Explain fundamentals of Power Equipment Preventative Maintenance & Troubleshooting.

STS.HS.28.9.a	Explain the steps to perform preventive maintenance on various engine systems.
STS.HS.28.9.b	Summarize the steps to change the oil in a four-cycle engine.
STS.HS.28.9.c	Describe the steps to prepare an engine for storage.
STS.HS.28.9.d	Describe systematic troubleshooting.
STS.HS.28.9.e	Explain the importance of manufacturers' service manuals to determine engine specifications and explain why this information is necessary when servicing a small engine.
STS.HS.28.9.f	Discuss the importance of a maintenance schedule and records.

TRANSPORTATION 1

COURSE DESCRIPTION

This intermediate course will provide students with basic knowledge and skills of the tools and systems needed to be a TDL technician. The student will create foundational knowledge and skills to prepare them for being a conscientious automotive owner or to further their skills to find a career in the TDL industry.

Target Grades 9-12.

STANDARDS AND INDICATORS:

STS.HS.33.1 Explain safety principles, practices, and guidelines to the work environment.

- STS.HS.33.1.a Complete applicable safety assessment with 100% accuracy.
- STS.HS.33.1.b Employ the use of personal protective equipment (PPE).
- STS.HS.33.1.c Describe proper use of a fire extinguisher.
- STS.HS.33.1.d Demonstrate automotive lift safety best–practices.
- STS.HS.33.1.e Demonstrate automotive battery safety best-practices.
- STS.HS.33.1.f Describe the role of government agencies in providing a safe workplace.
- STS.HS.33.1.g Explain the safe and environmental disposal of fluids.

STS.HS.33.2 Identify career opportunities in the transportation industry.

- STS.HS.33.2.a List the most common transportation careers and related fields of employment.
- STS.HS.33.2.b List the traits and skills employers look for in their employees.
- STS.HS.33.2.c Explain the specialized tasks completed by each type of technician.
- STS.HS.33.2.d Identify the training, education, certification, and licensing requirements for various careers in the transportation industry.

TRANSPORTATION 1 (cont.)

STS.HS.33.3 Explain proper usage of hand tools, power tools, fasteners, and equipment.

STS.HS.33.3.a Identify common hand tools, power tools, and equipment needed for diagnosis and repair of the automobile or mobile equipment.

STS.HS.33.3.b Identify and use basic measuring tools.

STS.HS.33.3.c Identify proper fasteners, gaskets, seals, and sealants used in transportation.

STS.HS.33.4 Describe the systems and components in an automobile.

STS.HS.33.4.a Identify the major parts of a typical automotive engine.

STS.HS.33.4.b Explain the basic function of the major parts of an automotive engine.

STS.HS.33.5 Explain the fundamentals of vehicle maintenance and fluid service.

STS.HS.33.5.a Describe the steps to check a vehicle's fluid levels.

STS.HS.33.5.b Explain the importance of vehicle maintenance.

STS.HS.33.5.c Identify the process to locate and identify fluid leaks.

STS.HS.33.5.d Outline the process to complete an oil and filter change.

STS.HS.33.5.e Describe the process to perform a vehicle grease maintenance.

STS.HS.33.5.f Explain the process of how to inspect for general problems with air filters, hoses, belts, pulleys, and other components.

TRANSPORTATION 1 (cont.)

STS.HS.33.6 Explain the fundamentals of vehicle exterior maintenance.

STS.HS.33.6.a Describe the importance of keeping a vehicle's exterior clean.

STS.HS.33.6.b Identify the proper tools and materials needed to wash and wax a vehicle's exterior.

STS.HS.33.6.c Explain the importance of using the correct soaps and cleaning products.

STS.HS.33.6.d Describe the steps to washing and drying a vehicle.

STS.HS.33.7 Explain fundamentals of researching, purchasing, and owning a vehicle.

STS.HS.33.7.a Explain the costs of owning and operating a car.

STS.HS.33.7.b Identify models and submodels of vehicles.

STS.HS.33.7.c Describe how to search and locate vehicles for sale.

STS.HS.33.7.d Differentiate the benefits versus cost of buying new or used vehicles.

TRANSPORTATION 2

COURSE DESCRIPTION

This capstone course will expand on the basic concepts and systems needed by the TDL technician. It will focus on service and maintenance of automobiles and mobile equipment. Specific maintenance requirements with the various systems of the automobile and mobile equipment will be covered as well as replacement of needed parts. This course will help students that want to know how to keep a vehicle running in good order and for those that would like to continue on in the TDL field.

Target Grades 10-12.

STANDARDS AND INDICATORS:

STS.HS.34.1 Explain safety principles, practices, and guidelines to the work environment.

STS.HS.34.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.34.1.b	Identify and explain the use of personal protective equipment.
STS.HS.34.1.c	Describe proper use of a fire extinguisher.
STS.HS.34.1.d	Demonstrate automotive lift safety best–practices.
STS.HS.34.1.e	Demonstrate automotive battery safety best-practices.
STS.HS.34.1.f	Apply the safe use of tools, machines, and equipment in alignment with industry standards to maintain a safe workplace.
STS.HS.34.1.g	Describe the role of government agencies in providing a safe workplace.
STS.HS.34.1.h	Explain the purpose for safe and environmental disposal of fluids.

STS.HS.34.2 Identify career opportunities in the transportation industry.

STS.HS.34.2.a	Identify the most common transportation careers and related fields of employment.
STS.HS.34.2.b	Identify the traits and skills employers look for in their employees.
STS.HS.34.2.c	Identify the training, education, certification, and licensing requirements for various careers in the transportation industry.

TRANSPORTATION 2 (cont.)

STS.HS.34.3 Identify correct tools, equipment and fasteners needed to diagnose and repair automobiles and mobile equipment.

STS.HS.34.3.a Identify common hand tools, power tools, and equipment needed for diagnosis and repair of the automobile or mobile equipment.

STS.HS.34.3 .b Describe the different types of service information platforms.

STS.HS.34.3.c Explain fundamentals of on–board diagnostics and scan tools.

STS.HS.34.3.d Identify proper fasteners, gaskets, seals, and sealants used in transportation.

STS.HS.34.4 Summarize the various systems used on automobiles and mobile equipment.

STS.HS.34.4.a Explain the fundamentals of the lubrication system.

STS.HS.34.4.b Explain the fundamentals of the fuel system.

STS.HS.34.4.c Explain the fundamentals of the cooling system.

STS.HS.34.4.d Explain the fundamentals of the brake system.

STS.HS.34.4.e Explain the fundamentals of the suspension system.

STS.HS.34.4.f Explain the fundamentals of the electrical system.

STS.HS.34.4.g Explain the fundamentals of the ignition system.

STS.HS.34.4.h Explain the fundamentals of the exhaust system.

COLLISION REPAIR

COURSE DESCRIPTION

This capstone course exposes students to the knowledge and skills needed to be a collision repair and refinishing technician. Safety, materials, tools and estimating will be included in the instruction. Working experience will also be included.

Target Grades 11-12.

STANDARDS AND INDICATORS:

STS.HS.9.1 Demonstrate safety principles, practices, and guidelines to the work environment.

STS.HS.9.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.9.1.b	Identify and explain the use of personal protective equipment.
STS.HS.9.1.c	Describe proper use of a fire extinguisher.
STS.HS.9.1.d	Demonstrate automotive lift safety best-practices.
STS.HS.9.1.e	Demonstrate automotive battery safety best-practices.
STS.HS.9.1.f	Demonstrate the safe use of tools, machines, and equipment in alignment with industry standards to maintain a safe workplace.
STS.HS.9.1.g	Describe the role of government agencies in providing a safe workplace.

STS.HS.9.2 Explain proper usage of hand tools, power tools, fasteners, and equipment.

STS.HS.9.2.a	Identify common hand tools, power tools, and equipment needed for diagnosis and repair of the automobile or mobile equipment.
STS.HS.9.2.b	Identify and use basic measuring tools.
STS.HS.9.2.c	Identify proper fasteners, gaskets, seals, and sealants used in transportation.

COLLISION REPAIR (cont.)

STS.HS.9.3 Identify career opportunities in the transportation industry.

STS.HS.9.3.a List the most common transportation careers and related fields of employment.

STS.HS.9.3.b List the traits and skills employers look for in their employees.

STS.HS.9.3.c Explain the specialized tasks completed by a collision repair technician.

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STS.HS.9.3.d Identify the training, education, certification, and licensing requirements for various careers in the transportation industry.

STS.HS.9.4 Explain fundamentals of Collision Repair and Refinishing measurement and math.

STS.HS.9.4.a Employ both customary and metric measuring systems.

STS.HS.9.4.b Identify and use basic collision repair and refinishing measuring tools.

STS.HS.9.4.c Employ basic math skills used in collision repair and refinishing.

STS.HS.9.5 Identify fundamentals of Collision Repair Information.

STS.HS.9.5.a Describe the different types of service information.

STS.HS.9.5.b Explain the different kinds of information and Illustrations used in service information.

STS.HS.9.5.c Utilize print and online service information.

STS.HS.9.5.d Understand shop work orders.

STS.HS.9.5.e Describe how to order parts for repair.

COLLISION REPAIR (cont.)

STS.HS.9.6 Explain fundamentals of Nonstructural Repairs.

STS.HS.9.6.a	Describe steps for a nonstructural panel repair.
STS.HS.9.6.b	Explain steps for a bolted nonstructural panel replacement.
STS.HS.9.6.c	Identify the procedure to repair welded and bonded nonstructural panel replacement.
STS.HS.9.6.d	Recall steps and procedures for plastic repair.
STS.HS.9.6.e	Describe steps for glass repair.

STS.HS.9.7 Explain fundamentals of Structural Repairs.

STS.HS.9.7.a	Identify unibody/frame-straightening equipment.
STS.HS.9.7.b	Discuss the various types of measurements used for structural repairs.
STS.HS.9.7.c	Describe the steps for unibody straightening.
STS.HS.9.7.d	Identify the steps for full frame repair.
STS.HS.9.7.e	Summarize the process for various types of structural component replacement.

STS.HS.9.8 Explain fundamentals of Refinishing Technology used in Collision Repair.

STS.HS.9.8.a	Explain various refinishing materials used.
STS.HS.9.8.b	Describe steps for paint mixing and reducing.
STS.HS.9.8.c	Explain correct spray techniques.
STS.HS.9.8.d	Explain various techniques for surface preparation.
STS.HS.9.8.e	Identify steps for color matching.
STS.HS.9.8.f	Describe the process for paint application.
STS.HS.9.8.g	Explain the steps used in detailing.

STS.HS.9.9 Explain fundamentals of Estimating used in Collision Repair.

STS.HS.9.9.a	Describe the process of collision repair estimating.
STS.HS.9.9.b	Describe the steps involved in completing a repair estimate.
STS.HS.9.9.c	Explain the process for completing an estimate.

TRANSPORTATION 3

COURSE DESCRIPTION

This extended learning course focuses on the diagnosis, service, and repair of automobile and mobile equipment. This course will prepare students for postsecondary education and entry into the career.

Target Grades 11-12.

STANDARDS AND INDICATORS:

STS.HS.35.1 Apply safety principles, practices, and guidelines to the work environment.

STS.HS.35.1.a	Complete applicable safety assessment with 100% accuracy.
STS.HS.35.1.b	Identify and explain the use of personal protective equipment.
STS.HS.35.1.c	Describe proper use of a fire extinguisher.
STS.HS.35.1.d	Demonstrate automotive lift safety best–practices.
STS.HS.35.1.e	Demonstrate automotive battery safety best–practices.
STS.HS.35.1.f	Apply the safe use of tools, machines, and equipment in alignment with industry standards to maintain a safe workplace.
STS.HS.35.1.g	Describe the role of government agencies in providing a safe workplace.
STS.HS.35.1.h	Describe the safe and environmental disposal of fluids.

STS.HS.35.2 Identify career opportunities in the transportation industry.

STS.HS.35.2.a	List the most common transportation careers and related fields of employment.
STS.HS.35.2.b	List the traits and skills employers look for in their employees.
STS.HS.35.2.c	Explain how to find job openings in the transportation field.
STS.HS.35.2.d	Explain the specialized tasks completed by each type of technician.
STS.HS.35.2.e	Identify the training, education, certification, and licensing requirements for various careers in the transportation industry.

TRANSPORTATION 3 (cont.)

STS.HS.35.3 Identify fundamentals of transportation measurement and service information.

- STS.HS.35.3.a Measure with both customary and metric measuring systems.
- STS.HS.35.3.b Identify and use proper measuring tools for each task.
- STS.HS.35.3.c Describe the different types of service information.
- STS.HS.35.3.d Explain how to read shop work orders.

STS.HS.35.4 Identify correct tools, equipment and fasteners needed to diagnose and repair automobiles and mobile equipment.

- STS.HS.35.4.a Identify common hand tools, power tools, and equipment needed for diagnosis and repair of the automobile or mobile equipment.
- STS.HS.35.4.b Describe the different types of service information platforms.
- STS.HS.35.4.c Explain fundamentals of on–board diagnostics and scan tools.
- STS.HS.35.4.d Identify proper fasteners, gaskets, seals, and sealants used in transportation.

STS.HS.35.5 Explain fundamentals of vehicle systems and principles.

- STS.HS.35.5.a Explain the principles of electricity and magnetism.
- STS.HS.35.5.b Explain fundamentals of engine mechanical problem diagnosis.
- STS.HS.35.5.c Explain fundamentals of engine top end rebuilding.
- STS.HS.35.5.d Explain fundamentals of engine front end service.
- STS.HS.35.5.e Explain fundamentals of short block service.
- STS.HS.35.5.f Explain fundamentals of manual transmission, clutch, and automatic transmission technology.
- STS.HS.35.5.g Explain fundamentals of front and rear drive train technology.
- STS.HS.35.5.h Explain fundamentals of heating and air conditioning.
- STS.HS.35.5.i Explain fundamentals of diesel injection, turbochargers, and superchargers fundamentals.
- STS.HS.35.5.j Explain fundamentals of wheel alignment.
- STS.HS.35.5.k Explain fundamentals of restraint systems.

Middle School Introduction to Ag, Food and Natural Resources

Course Description:
The introductory course for the Agriculture, Food and Natural Resources Career Cluster provides a knowledge base and technical skills in all aspects of the industry. Learners will be exposed to a broad range of agriculture, food and natural resources careers, cluster foundation knowledge and skills, introduction to leadership development, the FFA organization and career exploration. Classroom and laboratory activities are supplemented through supervised agricultural experiences and leadership programs and activities.

Course Code: 011012

Endoresements to teach: AFNR

Programs of Study to which this Course applies:

Agribusiness Systems
Agribusiness Systems Plus
Animal Systems
Animal Systems Plus
Environmental Systems
Environmental Systems Plus
Food Products and Processing Systems
Food Products and Processing Systems Plus
Plant Systems
Plant Systems Plus
Power, Structural and Technical Systems
Power, Structural and Technical Systems Plus
Diversified Agriculture Systems
Diversified Agriculture Systems Plus

AFNR.HS.1.1	
Apply AFNR business planning, management, and development principles.	
AFNR.HS.1.1.a	Apply and analyze different types of risk management strategies and structures in AFNR businesses.
AFNR.HS.1.1.c	Differentiate between and explain different business structures.
AFNR.HS.1.3	
Manage cash budgets, credit budgets and credit for an AFNR business using generally accepted accounting principles.	
AFNR.HS.1.3.b	Develop production plans.
AFNR.HS.1.5	
Use sales and marketing principles to accomplish AFNR business objectives.	
AFNR.HS.1.5.c	Analyze and apply sales principles and skills to accomplish AFNR business objectives.
AFNR.HS.2.1	
Analyze historic and current trends impacting the animal systems industry.	
AFNR.HS.2.1.a	Research the domestication of livestock and how the industries have changed and evolved over the years.
AFNR.HS.2.1.b	Assess and select animal production methods for use in animal systems based upon their effectiveness and impacts.
AFNR.HS.2.1.c	Analyze and apply laws and sustainable practices to animal agriculture from a global perspective.
AFNR.HS.2.6	
Classify, evaluate and select animals based on anatomical and physiological characteristics.	
AFNR.HS.2.6.a	Classify animals according to taxanomic classification systems and use.
AFNR.HS.2.6.b	Apply principles of comparative anatomy and physiology to uses within animal systems.
AFNR.HS.2.6.c	Select and train animals for specific purposes and maximize performance based on anatomy and physiology.
AFNR.HS.2.8	
Analyze environmental factors associated with animal production.	
AFNR.HS.2.8.a	Design and implement methods to reduce the effects of animal production on the environment.

AFNR.HS.2.8.b	Evaluate the effects of environmental conditions on animals and create plans to ensure favorable environments for animals.
AFNR.HS.3.1	
Plan and conduct natural resource management activities that apply logical, reasoned and scientifically based solutions to natural resource issues and goals.	
AFNR.HS.3.1.c	Identify proper use of tools utilized in measuring soil health.
AFNR.HS.3.2	
Analyze the interrelationships between natural resources and humans.	
AFNR.HS.3.2.a	Summarize the impacts that modern agriculture has had on our natural resources.
AFNR.HS.3.3	
Develop plans to ensure sustainable production and processing of natural resources.	
AFNR.HS.3.3.e	Examine the major causes of water pollution.
AFNR.HS.3.3.h	Describe the soil formation process.
AFNR.HS.3.3.j	Discuss the role of food chains in maintaining balanced ecosystems.
AFNR.HS.3.3.k	Demonstrate how to determine soil types and and how it affects land use.
AFNR.HS.4.5	
Explain the scope of today's food product and food processing industry.	
AFNR.HS.4.5.a	Explore career options available in the food science and food processing industry in the US and worldwide.
AFNR.HS.4.5.b	Discuss current events in food science and the food processing industry in the US and worldwide.
AFNR.HS.5.1	
Develop and implement a crop management plan for a given prodcution goal that accounts for environmental factors.	
AFNR.HS.5.1.a	Select crops based on geography and climate.
AFNR.HS.5.2	
Utilize resources efficiently and sustainably for crop production.	
AFNR.HS.5.2.b	Differentiate between various erosion control methods.
AFNR.HS.5.2.d	Analyze soil properties and chemistry.
AFNR.HS.5.4	
Apply principles of classification, plant anatomy, and plant physiology to plant production and management.	
AFNR.HS.5.4.a	Choose plants for a specific landscape and cropping situations.
AFNR.HS.5.4.d	Explain the process and stages of germination in monocots and dicots.
AFNR.HS.6.1	
Apply physical science principles and engineering applications to solve problems and improve performance in AFNR power, structural and technical systems.	
AFNR.HS.6.1.a	Apply physical science principles to metal fabrication using a variety of welding and cutting processes.
AFNR.HS.6.1.b	Apply physical science and engineering principles to design, implement, and improve safe and efficient mechanical systems in AFNR situations.
AFNR.HS.6.2	
Operate and maintain AFNR mechanical equipment and power systems.	
AFNR.HS.6.2.b	Demonstrate proper safety while operating machinery and power equipment.
AFNR.HS.CR.1	
Describe career opportunities and means to achieve those opportunities in each of the AFNR career pathways.	
AFNR.HS.CR.1.a	Evaluate and implement the steps and requirements to pursue a career opportunity in an AFNR career pathway.
AFNR.HS.CR.1.b	Examine and choose career opportunities that are matched to personal life skills, talents, and career goals in an AFNR pathway of interest.
AFNR.HS.CR.2	
Demonstrate employability skills for college and career readiness.	
AFNR.HS.CR.2.a	Model personal responsibility in the workplace and community.
AFNR.HS.CR.2.b	Speak using strategies that ensure clarity, logic, purpose and professionalism in formal and informal settings.
AFNR.HS.CR.2.g	Contribute to team-oriented projects and builds consensus to accomplish results using cultural global competence in the workplace and community.

AFNR.HS.CR.4	
Identify and demonstrate workplace safety.	
AFNR.HS.CR.4.a	Identify and explain the implication of required regulations to maintain and improve safety, health and environments management systems.
AFNR.HS.CR.4.b	Apply health and safety practices to AFNR workplaces.
AFNR.HS.CR.4.c	Use appropriate protective equipment and demonstrate safe and proper use of AFNR tools and equipment.
AFNR.HS.CR.6	
Identify and demonstrate leadership skills and traits in demand of leadership roles in the agriculture industry.	
AFNR.HS.CR.6.a	Create a self introduction including the name of the student and information about his or her personal values.
AFNR.HS.CR.6.b	Craft SMART goals to achieve by the end of a specific agricultural education course.
AFNR.HS.CR.6.c	Write a career objective.
AFNR.HS.CR.6.e	Generate a personal statement explaining how he or she hopes to serve the people around them in their community and society.

Careers and Literacy of Agriculture Middle School Course

Course Description

Agricultural knowledge enrichment and career exploration instruction is provided. Other instruction may include leadership, FFA and Supervised Agricultural Experiences (SAE).

Course Code: 018002

Program(s) of Study to which this course applies:

- All programs of study in the Agriculture, Food and Natural Resources career cluster

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
Standard 1. Students will define the components of the agricultural industry.				
Benchmark 1.1 Define the agricultural industry through the Agriculture, Food, and Natural Resources career field. <u>Sample performance indicators:</u> • Develop a class definition of the Agriculture, Food, and Natural Resources career field. • Diagram Agriculture, Food, and Natural Resources career field, cluster, and pathways. • Complete Kuder® Career Search with Person Match. • Complete Kuder® Skills Assessment.	N/A	N/A	N/A	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
Benchmark 1.2 Describe the seven career pathways within the Agriculture, Food, and Natural Resources career field. <u>Sample performance indicators:</u> • Research Agriculture, Food, and Natural Resources pathways. • Identify careers that may be present in more than one pathway (Example: Plant scientist in both plant and animal systems). • Create multimedia presentations on each pathway to be shared with the rest of the class.	ELA.SL.6-8.4 ELA.WHST.6-8.2.b	LA.8.2.1.b LA.8.3.1.a SS.12.2.6.d	CR.2.B.1 CR.2.C.1 CR.10.A.1	When students *describe* information or ideas, they communicate their knowledge through either speaking or writing. To demonstrate full knowledge on the topic, students' presentations must include all the main ideas and relevant details on the subject (CC: ELA.WHST.6-8.2.b, ELA.SL.6-8.4; NE: CR.2.B.1, CR.2.C.1, LA.8 2.1.b, LA.8.3.1.a).
Benchmark 1.3 Correlate appropriate careers with each of the seven Agriculture, Food, and Natural Resources career pathways. <u>Sample performance indicators:</u> • List career titles affiliated with each career pathway. • Organize careers by educational requirements.	N/A	N/A	CR.10.A.1 CR.10.B.1	
Benchmark 1.4 Evaluate Agriculture, Food, and Natural Resources career trends. <u>Sample performance indicators:</u> • Research local, state, and national career opportunities within the Agriculture, Food, and Natural Resources career field. • Identify career growth areas in Agriculture, Food, and Natural Resources. • Identify atypical careers in Agriculture, Food, and Natural Resources.	N/A	N/A	CR.10.A.1 CR.10.B.1	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
Benchmark 1.5 Research a career within the selected pathway interest area, and summarize information in written text. <u>Sample performance indicators:</u> • Select an agricultural career from the Agriculture, Food, and Natural Resources pathways. • Research job tasks and conditions, interests, skills, and work values, education and experience, salary and outlook, and related occupations of the selected agricultural career.	ELA.WHST.6-8.7-9	LA.8.4.1.a-c LA.8.1.6.j	CR.5.B.1 CR.9.A.2 CR.10.A.1 CR.10.B.1	The depth of students' investigations, and thus the research standards that apply, will be determined by the nature of the task. (CC: ELA WHST.6-8.7-9; NE: CR.5.B.1, CR.9.A.2, LA.8.4.1, LA. 8.1.6).
Standard 2. Students will explore agricultural literacy concepts.				
Benchmark 2.1 Explore local, state, and national agricultural production opportunities. <u>Sample performance indicators:</u> • Develop a production map of local, state, and national agriculture. • Identify local agricultural producers. • Visit a local farm or production site. • Identify careers present within these production sites.	N/A	N/A	CR.10.B.1	
Benchmark 2.2 Illustrate the path that food takes from farm to table. <u>Sample performance indicators:</u> • Select an agricultural product produced in the local agricultural community. • Diagram the steps this product goes through from farm to table.	N/A	N/A	N/A	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
• Research historical advancements in production and processing of this product. • Create a farm to table presentation to be shared with elementary school students.				
Benchmark 2.3 Map the direct and indirect relationships of Agriculture, Food, and Natural Resources with careers. Sample performance indicators: • Identify all careers, agricultural and other, involved in bringing the agricultural product from farm to table. • Connect typically non-agricultural careers with the Agriculture, Food, and Natural Resources career field.	N/A	N/A	N/A	
Standard 3. Students will outline skills necessary to enter college and the workplace.				
Benchmark 3.1 Identify college and career ready skills. Sample performance indicators: • Develop class definitions of the college and career ready skills from the Nebraska Career Education model. • Create and perform skit, acting out a scenario using a particular college and career ready skill.	N/A	N/A	CR.1.B.1	
Benchmark 3.2 Develop educational pathway to reach career goal. Sample performance indicators: • Select cluster area of interest based on Kuder® survey results. • Select high school core classes to meet cluster objective. • Select elective high school classes to meet cluster objective.	N/A	N/A	CR.1.B.1 CR.10.A.1	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
• Review graduation requirements. • Research college entrance requirements. • Complete 6-year plan (4 years high school, 2 years post-secondary).				
Benchmark 3.3 Explore current job opportunities in career of choice. <u>Sample performance indicators:</u> • Research current employment options for a selected career. • Review secondary and post-secondary educational requirements and training necessary for a selected career. • Evaluate job prospects through job postings (newspapers, websites, etc.). • Attend a job fair.	N/A	N/A	CR.10.A.1	
Benchmark 3.4 Develop materials to apply for a sample job. <u>Sample performance indicators:</u> • Create a resume. • Create a cover letter. • Develop online portfolio through Nebraska Career Connections. • Develop possible interview questions and responses. • Participate in mock interviews.	ELA.WHST.6-8.4	LA.8.2.2	CR.10.C.1–2	
Standard 4. Students will explore leadership and entrepreneurship opportunities within Agriculture, Food, and Natural Resources.				
Benchmark 4.1 Illustrate the relationship between classroom instruction, leadership opportunities, and entrepreneurial skills.	N/A	N/A	N/A	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
<u>Sample performance indicators:</u> • Diagram the three-circle agricultural education Venn diagram. • Explain the relationship between the overlapped areas of the Venn diagram, showing that classroom, SAE, and FFA are interconnected. • Illustrate an unbalanced diagram, with strong and weak areas of an agricultural education program.				
Benchmark 4.2 Identify Agriculture, Food, and Natural Resources courses offered at the middle and high school levels. <u>Sample performance indicators:</u> • Read agricultural education course titles and descriptions. • Determine courses of interest that may be beneficial for a particular Agriculture, Food, and Natural Resources career pathway.	N/A	N/A	CR.10.A.3 CR.10.D.2	
Benchmark 4.3 Explore opportunities within the National FFA Organization. <u>Sample performance indicators:</u> • Explore the National FFA Organization website to research the organization and opportunities at the local, state, national, and international levels. • Attend a local FFA chapter meeting. • Interview chapter FFA officer about their experiences in the National FFA Organization. • Participate in local and district FFA speaking competitions. • Assist with local FFA chapter activities.	N/A	N/A	CR.10.A.1	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
Benchmark 4.4 Explore career opportunities within Supervised Agricultural Experience programs. <u>Sample performance indicators:</u> • Develop classroom definition of Supervised Agricultural Experience (SAE). • Describe the three main SAE types: Entrepreneurship, Placement, and Agriscience/Exploratory. • Brainstorm three different examples for each SAE type. • Create electronic brochure advertising an SAE idea. • List career opportunities present within a selected Supervised Agricultural Experience program.	N/A	N/A	CR.10.A.1	
Benchmark 4.5 Explore other leadership opportunities present within Agriculture, Food, and Natural Resources. <u>Sample performance indicators:</u> • List and research different professional organizations within a career pathway. • Write letter to professional organizations requesting additional information. • Invite professional organization representative to classroom to speak on current agricultural issues. • "Like" or "Follow" professional organizations on Facebook or Twitter.			CR.10.A.1	
Standard 5. Students will analyze current issues in Agriculture, Food, and Natural Resources.				
Benchmark 5.1 Identify, summarize, and analyze current developments in selected career pathway within the Agriculture, Food, and Natural Resources career field.	ELA.WHST.6-8.2.b ELA.SL.6-8.4	LA.8.2.1.b LA.8.3.1.a LA.8.1.6.d	CR.2.B.1 CR.2.C.1 CR.8.C.2	When students *summarize* information or ideas, they communicate their knowledge through either speaking or

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
Sample performance indicators: • Read articles from newspapers, online publications, and other current event magazines to locate current issues in Agriculture, Food, and Natural Resources pathways. • Design multimedia project summarizing the agricultural issue and its corresponding pathway.				writing. To demonstrate full knowledge on the topic, students' presentations must include all the main ideas and relevant details on the subject. (CC: ELA.WHST.6-8.2.b; ELA.SL.6-8.4; NE: CR.2.B.1, CR.2.C.1, LA.12 2.1.b, LA. 12.3.1.a).
Benchmark 5.2 Analyze the credibility of agricultural issues as presented in the media. Sample performance indicators: • Identify industry partners (Nebraska Cattlemen, Nebraska Pork Producers, etc.) that provide viable information pertaining to agricultural issues. • Identify other sources that may provide a biased viewpoint on agricultural issues. • Compare and contrast biased and viable information sources.	ELA.RST.6-5.7	LA.8.4.1.a	CR.5.A.1	
Benchmark 5.3 Learn and practice advocacy efforts in the Agriculture, Food, and Natural Resources career field. Sample performance indicators: • Debate agricultural issues. • Correspond with lawmakers pertaining to current bills and legislation related to Agriculture, Food, and Natural Resources. • Visit the State Capitol during the Unicameral session to observe floor debate and the legislative process. • Invite an agricultural advocate (Nebraska Farm Bureau, Corn Board, state senator, etc.) to speak to the class on agricultural lobbying and policy-making.	N/A	N/A	CR.3.C.1	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
Standard 6. Students will create risk management strategies as related to a particular pathway and career within the Agriculture, Food, and Natural Resources career field.				
Benchmark 6.1 Define risk management. Sample performance indicators: • Develop a class definition of risk management. • Identify risks in the classroom and laboratory through scavenger hunt. • Summarize current event related to a recent safety accident and identify how the accident can be prevented.	ELA.RST.6-8.4	LA.8.1.5.a	CR.3.B.4	
Benchmark 6.2 Research safety data as it pertains to the Agriculture, Food, and Natural Resources career field. Sample performance indicators: • Define OSHA and the OSHA-recommended workplace procedures. • Research and report OSHA workplace injury, illness, and fatalities statistics. • Develop multimedia presentation/safety poster on the risks present within the selected pathway in Agriculture, Food, and Natural Resources. • Acquire OSHA certification as a middle/high school student.	ELA.WHST.6-8.7-9	LA.8.4.1.a-c LA.8.1.6.j	CR.5.B.1 CR.9.A.2 CR.3.B.4	The depth of students' investigations, and thus the research standards that apply, will be determined by the nature of the task. (CC: ELA WHST.6-8.7-9; NE: CR.5.B.1, CR.9.A.2, LA.8.4.1, LA. 8.1.6).
Benchmark 6.3 Develop a safety awareness plan for the working environment pertaining to a career of choice. Sample performance indicators: • Describe safety role of teachers and students within the classroom and laboratory.	N/A	N/A	CR.3.B.4	

Course Framework	Crosswalk to Common Core Academic Standards	Crosswalk to Nebraska Academic Standards	Crosswalk to Nebraska Career Readiness Standards	Crosswalk Clarifications
• Report risk management strategies, pertaining to a career field of choice, as part of the National Risk Management Essay Contest. • Demonstrate safety procedures to elementary students in a "Safety Fair" environment.				

Reference Standards Sources

- KS = Career Clusters Knowledge and Skills Statements. Revised 2008. National Career and Technical Education Foundation, Silver Spring, MD. www.careerclusters.org.
- (additional reference standards listed)

Contributors

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Other Information

Suggestions for innovative teaching and learning strategies:	• Elementary Career Mentoring Projects • Career Discussion Panels • Industry Guest Speakers • Industry Tours
Related assessments:	• Kuder® Career Search with Person Match • OSHA Certification Test • Kuder® Skills Assessment
Extended learning opportunities:	• SAE Development • FFA Quizbowl Competition • Local and District FFA Speaking Competitions • FFA Community Service Opportunities

FACS 7	
Number	**Statement**
Relationships, Peer and Family-The student will	
HSE.MS.7.1	Identify characteristics of healthy and unhealthy relationships and behaviors knowing limits, boundaries, and refusal skills.
HSE.MS.7.2	Expose media and cultural influences to recognize unhealthy messages related to peer pressure, relationships, and/or elicit behaviors.
HSE.MS.7.3	Address benefits of abstinence and increase awareness of risks associated with sexual activity.
HSE.MS.7.4	Develop support systems to maintain the healthiest personal choice in relationships.
HSE.MS.7.5	Identify physical and social consequences of using tobacco, marijuana, inhalants, alcohol, and other drugs.
HSE.MS.7.6	Identify and explain family functions. (Ex: physical needs, intellectual development, emotional well-being, socialization)
HSE.MS.7.7	Describe the characteristics of the family life cycle stages.
HSE.MS.7.8	Identify healthy characteristics of families and explain how to use these characteristics to improve and strengthen family relationships.
HSE.MS.7.9	Examine resources and methods of handling family crisis.
HSE.MS.7.10	Incorporate technology tools & skills as they complete research and projects throughout the unit.
Textiles, Sewing and Design-The student will	
HSE.MS.7.11	Identify and practice safety while using sewing equipment.
HSE.MS.7.12	Identify parts of the sewing machine, correct threading of the sewing machine and correct use of the sewing machine.
HSE.MS.7.13	Demonstrate basic sewing skills before and during the construction of a project.
HSE.MS.7.14	Read & follow oral and written directions while completing a sample/project.
HSE.MS.7.15	Identify and practice clothing care - laundry, iron, repair.
HSE.MS.7.16	Understand the terminology associated with design, textiles, merchandizing, and the clothing industry.
HSE.MS.7.17	Incorporate technology tools & skills as they complete research and projects throughout the unit.

FACS 8	
Number	**Statement**
Personal Finance-The student will	
HSE.MS.8.1	Understand terminology associated with personal finance and its role in overall financial health.
HSE.MS.8.2	Understand the flow of money and how the banking system operates. (Ex: move savings, checking account, investments, interest, etc)
HSE.MS.8.3	Explain the connections between education, career, and lifetime earnings.
HSE.MS.8.4	Understand the concept of credit.
HSE.MS.8.5	Calcuate a variety of financial transactions.
HSE.MS.8.6	Understand the importance of protecting oneself from identity theft.
HSE.MS.8.7	Define, compare & contrast, and reflect on needs and wants and how to reach financial security.
HSE.MS.8.8	Define short term and long term financial goals.
HSE.MS.8.9	Analyze factors affecting consumer decisions for individuals and families.
HSE.MS.8.10	Incorporate technology tools & skills as they complete research and projects throughout the unit.
College and Career Ready Skills-The student will	
HSE.MS.8.11	Identify employability skills helpful in obtaining and maintaining a job.
HSE.MS.8.12	Use the Nebraska Career Education Model, Nebraska Career Connections and related resources to investigate and learn about the world of work.
HSE.MS.8.13	Understand the purpose of a Personal Learning Plan.
HSE.MS.8.14	Analyze factors that impact self-formation.
HSE.MS.8.15	Define entrepreneurship, and compare and contrast the differences between being the employer and the employee.
HSE.MS.8.16	Incorporate technology tools & skills as they complete research and projects throughout the unit.
Housing and Interior Design-The student will	
HSE.MS.8.17	Identify the purpose and function of a home.
HSE.MS.8.18	Understand color theory.
HSE.MS.8.19	Design a basic design for a room reflecting personal style and needs.
HSE.MS.8.20	Incorporate technology tools & skills as they complete research and projects throughout the unit.