Southington Board of Education Meeting

Thursday, January 8, 2026 6:30 PM
John Weichsel Municipal Center Public Assembly Room
200 North Main Street
Southington, CT 06489

COMMITTEE OF THE WHOLE

1. CALL TO ORDER
2. Executive Session
   a. Discussion concerning the search and hiring process for the position of Director of Pupil Services
3. Reconvene Meeting - Regular Session 7:00 p.m.
4. Pledge of Allegiance - Moment of Silence
5. Approval of Minutes - December 11, 2025
6. Public Communications
   a. Communications from Student Board Representatives
   b. Communications from Board of Education
   c. Communications from Administration
   d. Communications from Public - Agenda Items Only
7. Committee Reports
   a. Finance Committee Meeting - December 30, 2025
      1. RFP 2026-002 Award - Agricultural Science Barn Facility General Contractor
8. Superintendent's Report
   a. Personnel Report
9. Old Business
   a. Town Government Communications
   b. Policy 5131.7 - Restorative Practices Response - Second Reading
   c. Policy 6154 - Homework - REVISED - Second Reading
   d. Policy 6161.2 - Library Collection Development and Maintenance Policy - NEW - Second Reading
   e. Policy 6161.3 - Library Display and Program Policy - NEW - Second Reading
   f. Policy 6161.4 - Library Material Review and Reconsideration - NEW - Second Reading
   g. K-5 Health - New Course Curriculum - Second Reading
   h. Grade 6 Science - New Course Curriculum - Second Reading
   i. SHS AP Human Geography - Textbook Adoption REPLACEMENT - Second Reading
   j. SHS AP Government and Politics - Textbook Adoption REPLACEMENT - Second Reading
   k. SHS Advanced Pottery - New Course Proposal - Second Reading
   l. SHS Emergency Medical Technician - New Course Proposal - Second Reading

m. SHS - Archery Unit Proposal - Second Reading
n. SHS - Agricultural Science - Course Change Proposal - Second Reading
    1. Proposal #1 - Advanced Equine Science
    2. Proposal #2 - Advanced Livestock Science
    3. Proposal #3 - Veterinary Technology
    4. Proposal #4 - Advanced Wildlife

10. New Business
    a. Approval of Out of State / Overnight Field Trips
        1. SHS - CyberKnights Robotics Team - Burlington, VT
        2. SHS - CyberKnights Robotics Team - Houston, TX
        3. SHS - Grades 10-12 (especially Latin students) - Rome and Sicily, Italy
    b. Proposed 2026-2027 School Calendar - First Reading
    c. ECCS Presentation
    d. Superintendent's Proposed 2026-2027 Budget Presentation
11. Public Communications
    a. Public
12. Adjournment

The minutes presented within the document provide a summary of the discussion that took place at the Board of Education meeting. For the complete discussion of the agenda items, please view the video of the Board meeting on our website at https://www.southingtonschools.org. These minutes are considered a draft until approved at the following regular Board of Education Meeting.

SOUTHINGTON BOARD OF EDUCATION, SOUTHINGTON, CT
Regular Meeting
Committee of the Whole
December 11, 2025, at 6:30 PM
John Weichsel Municipal Center Public Assembly Room
200 North Main Street Southington, CT 06489

1. **CALL TO ORDER**
   Mrs. Carmody, Vice Board Chairperson, called the meeting to order at 6:30 p.m.
   Board Members Present: Mr. Joseph Baczewski, Mr. Robert Brown, Mrs. Terri Carmody, Mrs. Colleen Clark, Ms. Lisa Cammuso, Mrs. Dawn Derynoski-Anastasio
   Board Members Absent: Mr. Sean Carson, Mr. Zaya Oshana, Mr. Cecil Whitehead

2. **Executive Session**
   MOTION made by Mr. Baczewski and seconded by Ms. Cammuso, "Move to go into Executive Session, excluding the public and the press, for the purpose of discussing Student Matters; upon conclusion reconvene to public session." Motion carried, 6-0.
   Executive session began at 6:32 p.m.
   Mr. Madancy and Mr. Pepe were invited to join the meeting.
   a. Student Matters
      Mr. Carson joined the meeting at 6:37 p.m.
      Executive session concluded at 6:41 p.m.

3. **Reconvene Meeting - Regular Session 7:00 p.m.**
   Mrs. Carmody called the regular meeting to order at 7:00 p.m.
   Board Members Present: Mr. Joseph Baczewski, Mr. Robert Brown, Mrs. Terri Carmody, Mr. Sean Carson, Mrs. Colleen Clark, Ms. Lisa Cammuso, Mrs. Dawn Derynoski-Anastasio, Mr. Cecil Whitehead
   Board Members Absent: Mr. Zaya Oshana
   Cabinet Members Present: Mr. Steven Madancy, Superintendent; Mr. Frank Pepe, Assistant Superintendent; Mrs. Jennifer Mellitt, Director of Business & Finance; Mrs. Amy Aresco, Interim Pupil Services Director
   Student Board Representatives Present: Mr. Ethan Hoffman, Ms. Arshi Roy, Mr. Samrath Singh

4. **Pledge of Allegiance**

5. **Approval of Minutes - November 13, 2025**
MOTION made by Mr. Baczewski and seconded by Mr. Brown, "Move to approve the BOE minutes for November 13, 2025." Motion carried 8-0.
Attachments: (1)

6. **Public Communications**
   a. Communications from Student Board Representatives

Mr. Hoffman gave the School Report:

- SHS Winterfest was held on December 10, 2025. This program allowed kids to come into the High School to donate a toy or money for the less fortunate.
- Last weekend was the production of Rudolph The Red Nosed Reindeer.
- Mama Mia was announced as the spring performance.
- The Winter Concert will be held on December 17, 2025.
- This past week was Culture Knight. Upper Classman presented posters, cuisine, music and dance from different countries around the world.

Ms. Roy gave the District Report:

- Congratulations to JFK's Robotics Team, The Eagle Engineers. They won the Champions Award and now have a Golden Ticket Championship held in Glastonbury.
- JFK donated 293 toys to Valentine's Toy Express. The toys will be distributed in the Southington community.
- JFK 7th and 8th grade Chorus performed this week. The Orchestra will be performing next week.
- At South End, over twenty 5th graders are volunteering with younger classes to help with Music, Art, PE, and Math.
- DePaolo's Leadership Program recently volunteered their time to ring the bell for the Salvation Army at Southington Walmart.
- 8th grade students at DePaolo had the opportunity to attend a field trip to Hartford Stage to view a live production of the Charles Dickens classic, "A Christmas Carol."
- DePaolo Band students performed at their concerts this week. The Orchestra will have their concert next week.

Mr. Singh gave the Sports Report:

- The winter sports season starts December 13, 2025, as the Girl's Basketball Team hosts Pomperaug.
- 15 student athletes attended a CAS-CIAC Leadership Conference at Southern Connecticut State University on December 5, 2025. Students participated in a variety of interactive workshops about collaboration, communication, diversity awareness, decision making and mental health.

- Southington Football Team has reached the State Championship for the first time in 11 years. The have already played Glastonbury and NFA. They will be taking on Greenwich High School on December 13, 2025, at Veterans Stadium in New Britain. The start time will be 7:00 p.m. and will be live streamed through the NFHS Network.

Mr. Singh and Ms. Roy were able to attend a CABE Convention a couple weeks ago. They thanked the Board for allowing them to attend the event, but also for allowing them to be Student Representatives on the Southington BOE and have a voice. It came as a surprise to them that this does not happen in a lot of other districts.

b. Communications from Board of Education

Mr. Brown referred to a bill which was passed in the legislature about a year and a half ago on School Climate. The Bill addresses challenging student behaviors among other things. He attended a meeting last week and many districts are not on top of implementing the bill. He applauded Mr. Pepe for heading the efforts in our town; our district is taking it seriously. Mr. Brown asked if a summary of what the Bill entails and what our district has done thus far can be provided.

Mr. Baczewski indicated he received an email from Missy Cipriano from Bread For Life. It indicated Nicole Maxellon, Food Service Director, approached Bread For Life for a giving opportunity. They were able to fill 100 backpacks with food and distributed them to families in town who needed help. Mr. Baczewski wanted to acknowledge that almost 30% of Southington's students are enrolled in Free and Reduced Lunches. There is a need in Southington all year round not just during the holiday season; please give time and/or donations when and if you can.

Mr. Baczewski spoke on the topic of Southington's Special Education Department. The past few months there have been negative comments during the BOE meetings. He is sorry if they feel something was missed or intervention was not given when they thought it should have been. Southington has created many programs for students to be serviced in their community. The district and the Board have continuously voted to increase programs and spending in this needed area and have tasked the administration in filling positions with those who are most talented and motived to help our students. Mr. Baczewski said the people at home are the most important educators in a child's life: good, bad, or indifferent. Sometimes parents who have students with special needs don't know what they need if they don't know they need something. Many times Mr. Baczewski will hear something was missed or that the school should have known. People should share constructive stores of hardships and not belittle staff or parents. They should grow toward early intervention and get students the help they need. There is an importance of cohesiveness and communication between parents and staff especially when a child

needs special education; this can be very stressful on the student and the family. Mr. Baczewski challenges the Board, the staff and the community to be patient. There will be challenges and missteps but hanging onto the negatives will only hurt a student. Mr. Baczewski believes Southington is building a great framework for special education and looks forward to consistent improvement as the right people move into needed roles.

Mrs. Clark had the opportunity to watch the documentary titled "Left Behind." This documentary is about 5 parents who started the Literacy Academy Collective in the South Bronx of New York City because of their children with special needs with reading disabilities. This made Mrs. Clark think of the program that had started in Southington to help recognize/identify a need and be able to start early intervention.

c. Communications from Administration

Mr. Madancy identified a slight shift in the Capital Improvement Plan. The South End Roof is enormous, and it is a shingled pitched roof; when there are heavy windstorms water finds its way through the roof and it is very hard to find the source of the leak. The Town Manager, along with the Board of Education, has added the South End Roof into the Town's Capital Improvement plan.

Mr. Madancy was also at the Rudolph production. The part that stood out to him the most was at the end, after the curtain call, everyone in the auditorium was invited to sing together. It was a very community-oriented vibe.

Mr. Madancy gave a budget update. The goal is to get the Board the budget books by January 8, 2026. Mrs. Mellitt has been working very hard trying to narrow the numbers and accounts down. There are a series of Budget meeting set up in the next couple of weeks to be able to get the final number and the books assembled.

Mr. Madancy stated the Pupil Services Director position will be posted December 12, 2025. It will be posted to reach NY, NJ, MA, RI, CT in the hopes of potential candidates for the position; it will be a 30-day posting.

Attachments: (1)

d. Communications from Public - Agenda Items Only

Tony Loomis, 70 Russell Road, Milldale, CT 06467
Mr. Loomis spoke of his support for item 10.m. SHS-Archery Unit Proposal.
Mr. Loomis has been a P.E. Teacher for 23+ years and is taught that safety is number one priority. This activity would enhance a student's life and make them better. He hopes the Archery gets approved because it is great for students.

Lisa Galske, 37 Eden Ave, Southington, CT 06489
Ms. Galske spoke of her support for item 10.m. SHS-Archery Unit Proposal. Ms. Galske is currently a P.E. Teacher but also a former Executive Director for the CT Association Health and Physical Educators. This activity will create a safe space for students to be comfortable and try something new. This program will provide students with a connection to the upcoming Olympics.

Amy Gagnon, 239 West Center Street, Southington, CT 06489
Ms. Gagnon spoke of her support for item 10.m. SHS-Archery Unit Proposal. Ms. Gagnon has been a Physical Educator for over 30 years. Archery is an activity for all the children including those who are not good movers. Archery is a lifetime activity supported in a safe environment by certified professionals. This will give students the opportunity to experience a non-traditional activity.

Antonio Cusano, 297 West Street, Plantsville, CT 06479
Mr. Cusano spoke of his concerns for item 10.m. SHS-Archery Unit Proposal. Mr. Cusano is a Retired Law Enforcement and security professional committed to the welfare of the staff, students and the entire community; He is not in support of the Archery activity. He urges the Curriculum Team and the Board to conduct a comprehensive review of the program, its risks, and its alignment with existing policy. Archery, while a respected sport, involves the use of potential lethal weapons; introducing this activity into a school environment presents several safety risks such as equipment malfunction, user error, student defiance, or other unforeseen circumstances. This proposal would not comply with national and state safety standards set forth governing school safety, leaving the school liable for any harm done. Feedback from security professionals has been disregarded and has created a climate of mistrust and apprehension. Mr. Cusano exhausted the 5-minute time limit and submitted the rest of his concerns to the Board in writing.

7. Committee Reports

a. Curriculum and Instruction Meeting - December 3, 2025

Mr. Brown explained the procedure for the C&I Committee. There is a Curriculum Committee who sit and listen to presentations from the Teachers. If they want to move forward, they will bring the curriculum to the Board for a First Read. There is time to address questions and then the curriculum would be voted on at the next meeting. There are 7 different items being presented to the Board as a first read at this meeting.
Attachments: (1)

Mrs. Carmody suggested to all the Board members to thoroughly read the material that was presented as there are some financial implications and some safety implications. Present any questions to Mr. Brown or Mr. Pepe.

b. Policy and Personnel Meeting - December 9, 2025

Mrs. Derynoski- Anastasio reviewed the minutes for the Policy and Personnel Meeting which took place on December 9, 2025. The following were discussed and reviewed:

- Policy 5121.3 – Academic Dishonesty and Language around AI. Regulations are being finalized and will be presented later in the year.
- Several job descriptions:
  - Transition Department Leader, Principals, Assistant Principals, Classroom Teachers, Paraeducators and ABA Therapists
- Policy 6161.2 – Library Collection Development and Maintenance, 6161.3 – Library Display and Program Policy, and 6161.4 – Library Material Review and Reconsideration.
- Policy 6154 – Homework
- Policy 5131.7 – Restorative Practices Response
- Mrs. Passamano distributed a draft of a new Employee Handbook being created.

Attachments: (1)

Mrs. Clark asked about the Transition Department Leader Position and why there was no degree specified. Mr. Pepe responded it was intentional not to list a degree or certification to not limit the pool of candidates. This role will work with the STELLAR students and oversee the program.

Ms. Cammuso asked if this position was a full-time position. Mrs. Aresco indicated it would be a stipend position. Mr. Pepe added that the position is title funded and is contingent on the title funding.

Mr. Carson asked about the Digital Learning Coordinator and if cell phones were something the C&I Committee were taking into consideration.

Mr. Pepe explained that Mrs. Savelkoul was hired for the position of Digital Learning Coordinator. Over the years, with technology and AI exponentially growing and evolving, so has the responsibilities of her position. This position is to hire someone for what she was originally hired for 10 years ago. The question regarding cell phones is one of practice within the school system not necessarily under the role of this position.

Mr. Carson clarified his question about cell phones was in regard to Policy. Mr. Pepe stated there were 4 different sessions last year on the "Anxious Generation." Part of the conversations was how this does move into our practice and policy. The High School and Middle Schools already have practices and procedures on the books regarding cell phones. Mr. Carson appreciated the discussion of being transparent moving forward with a Policy under consideration for the Committee.

Mr. Baczewski questioned why there was a Policy and Personnel meeting recap, but Mr. Brown was not able to do a Curriculum and Instructions meeting recap.
Mrs. Carmody stated because there were a good number of first reads with financial and safety implications. Mr. Baczewski noted that in the past there would be some level of a recap for a committee meeting and disagreed with the absences of the Curriculum and Instructions meeting recap.

8. Superintendent's Report

a. Personnel Report
MOTION made by Mr. Brown and seconded by Mrs. Clark, "Recommend that the Board of Education approve the Personnel Report as submitted by the Human Resource Department." Motion carried 8-0.
Attachments: (1)

9. Old Business

a. Town Government Communications
No comment made.

b. Capital Improvement Plan 2026-27 to 2030-31 - Second Reading
MOTION made by Mr. Baczewski and seconded by Ms. Cammuso, "Move to approve the Capital Improvement Plan 2026-27 to 2030-31 as presented by the Administration." Motion carried 8-0.
Attachments: (1)

10. New Business

g. K-5 Health - New Course Curriculum - First Reading
Attachments: (1)

h. Grade 6 Science - New Course Curriculum - First Reading
Attachments: (1)

i. SHS AP Human Geography - Textbook Adoption REPLACEMENT - First Reading
Attachments: (1)

j. SHS AP Government and Politics - Textbook Adoption REPLACEMENT - First Reading
Attachments: (1)

k. SHS Advanced Pottery - New Course Proposal - First Reading
Attachments: (1)

l. SHS Emergency Medical Technician - New Course Proposal - First Reading
Attachments: (1)

m. SHS - Archery Unit Proposal - First Reading
Attachments: (1)

n. SHS - Agricultural Science - Course Change Proposal - First Reading
1. Proposal #1 - Advanced Equine Science
Attachments: (1)

2. Proposal #2 - Advanced Livestock Science
Attachments: (1)

3. Proposal #3 - Veterinary Technology
Attachments: (1)

4. Proposal #4 - Advanced Wildlife
Attachments: (1)

Mrs. Clark called point of order – the Policy Committee should have been first presenting 10.a through 10.e.

a. Policy 5131.7 - Restorative Practices Response - NEW - First Reading
Attachments: (1)

b. Policy 6154 - Homework - REVISED - First Reading
Attachments: (1)

c. Policy 6161.2 - Library Collection Development and Maintenance Policy - NEW - First Reading
Attachments: (1)

d. Policy 6161.3 - Library Display and Program Policy - NEW - First Reading
Attachments: (1)

e. Policy 6161.4 - Library Material Review and Reconsideration - NEW - First Reading
Attachments: (1)

f. Approval of Job Descriptions
1. Instructional Technology Classroom Assistant – NEW
MOTION made by Mrs. Derynoski-Anastasio and seconded by Mrs. Clark, "Move to approve job description Instructional Technology Classroom Assistant." Motion carried 8-0.
Attachments: (1)

2. Transition Department Leader – NEW
   MOTION made by Mrs. Derynoski-Anastasio and seconded by Mrs. Clark, "Move to approve job description Transition Department Leader." Motion carried 8-0.
   Attachments: (1)

3. Principal – REVISED
   MOTION made by Mrs. Derynoski-Anastasio and seconded by Mr. Baczewski, "Move to job description for Principal." Motion carried 8-0.
   Attachments: (1)

4. Assistant Principal – REVISED
   MOTION made by Mrs. Derynoski-Anastasio and seconded by Mrs. Clark, "Move to approve job Assistant Principal." Motion carried 8-0.
   Attachments: (1)

5. Classroom Teacher – REVISED
   MOTION made by Mrs. Derynoski-Anastasio and seconded by Mrs. Clark, "Move to approve job description Classroom Teacher." Motion carried 8-0.
   Attachments: (1)

6. Paraeducator – REVISED
   MOTION made by Mrs. Derynoski-Anastasio and seconded by Mr. Baczewski, "Move to approve job description Paraeducator." Motion carried 8-0.
   Attachments: (1)

7. Applied Behavior Analysis (ABA) Therapist – REVISED
   MOTION made by Mrs. Derynoski-Anastasio and seconded by Mr. Brown, "Move to approve job description Applied Behavior Analysis Therapist." Motion carried 8-0.
   Attachments: (1)

o. Superintendent's Annual Report 2024-25

MOTION made by Ms. Cammuso and seconded by Mr. Baczewski, "Move to approve the Superintendent's Annual Report for the 2024-2025 school year be approved as submitted." Motion carried 8-0.
Attachments: (1)

Mrs. Clark encourages the public to take the opportunity to read the Superintendent's Annual Report. Every school is doing the same curriculum and has the same common goal, yet each school has different outcomes than the others. She thanked everyone who took the time to put it together.

Ms. Cammuso agreed with Mrs. Clark that the public should read the Superintendent's Report. Everyone did a great job and there is a nice Executive Summary at the beginning.

11. Public Communications

a. Public

No comment made.

12. Adjournment

MOTION made by Mrs. Derynoski-Anastasio and seconded by Mrs. Clark, "Move to adjourn." Motion carried 8-0.

Meeting adjourned at 7:49 p.m.

Respectfully submitted,

Recording Secretary

Board of Education

Administrative Report

January 8, 2026

1. Donation for School Lunch Unpaid Balance
2. Recognition Ceremony for SHS West Gym
3. Donation of Kindness Benches for seven elementary schools
4. Robotics Kick Off Event, this Saturday PAR @ 11:30.
5. Sloper Plunge Feb 28th, 1 o'clock
6. SEF Community Basketball Game 1/25 @ 2pm

Steven G. Madancy
Superintendent of Schools

Frank M. Pepe
Assistant Superintendent of Schools

Jennifer S. Mellitt
Director of Business & Finance

Peter J. Romano, Jr.
Director of Operations

Amy L. Aresco
Interim Director of Pupil Services

Michelle Passamano
Human Resource Manager

Kyle R. Fickel
Accounting Manager

200 North Main St.
Southington, CT 06489

www.southingtonschools.org

OFFICE TELEPHONE
(860) 628-3202

HUMAN RESOURCE FAX
(860) 628-3211

GENERAL FAX
(860) 628-8056

SOUTHINGTON Public Schools

FINANCE COMMITTEE MEETING

Monday, December 30, 2025, 4:30 p.m.
Conference Room 2, Municipal Center

Board Members Present: Ms. Lisa Cammuso, Chair, Mr. Zaya Oshana, Mrs. Colleen Clark and Mrs. Terri Carmody

Present from Administration: Mrs. Jennifer Mellitt, Director of Business & Finance and Mr. Kyle Fickel, Accounting Manager

The Finance Committee meeting was called to order at 4:35 pm.

1. RFP 2026-002 ASTE Barn:

Mr. Fickel presented the results of the RFP 2026-002 for a general contractor to construct an ASTE barn facility on the Pleasant Street site next to DePaolo Middle School. The bid scope of services involves numerous construction divisions, including structural concrete, carpentry, roofing, plumbing, electrical, etc. The bid scope also requested pricing for several add/alternate items related to the project.

Two vendors responded to our RFP. J.A Rosa Construction LLC from Wolcott, CT was the lowest bidder with a base bid price of $717,425. J.A. Rosa also provided pricing for items not included in the original RFP to improve the function of the completed project. The administration requested a pricing adjustment to reduce the scope of the vendor proposed add/alternates for concrete slabs under the barn wings for one side only. That change reduced the original charge submitted by $4,440.

The administration recommends awarding RFP 2026-002 to J.A. Rosa Construction LLC in the amount of $803,990 for their general contracting services outlined in their response. This cost reflects the base bid price as well as the add-alternates recommended for award. This project will be fully funded using the Agricultural Science Technology Education (ASTE) grant. The committee agreed to bring the award to the full board as presented.

2. **Food Service Financial Update FY 2025-26:**

Mr. Fickel provided a year-to-date financial review of the Food Service Program through November 2025. For 2025-2026, the National School Lunch Program meal reimbursements will be structured like pre-COVID. Student pricing for meals is based on their eligibility for free, reduced or full pay meals. Mr. Fickel and Mrs. Mellitt then reviewed the current reimbursement rates with the committee.

The district has seen an expected decrease in the number of meals served through November 2025 as students transition back to paying for both breakfast and lunch. Lunches have decreased by 7,798 and breakfast by 5,230.

Student negative meal debt totaled $10,492 through November 30, 2025. Mrs. Mellitt outlined the collection methods the district is utilizing to notify parents of the information, including sending text alerts through ParentSquare.

The financial information detailed on the Income Statement and Balance Sheets were shared with the committee.

3. **BOE Financial Update FY 2025-26:**

Mrs. Mellitt provided a general review of the FY 25-26 Operating Budget financial information.

The state has released their anticipated reimbursement rates to districts for the Special Education Excess Cost reimbursement grant. Based on the December 1st filing. Based on the State of CT's anticipated reimbursement rate of 70.3%, the district is projected to receive $3.3 million of excess cost reimbursements. The first payment is expected in late February.

The district is monitoring electricity expenditures and fluctuations. Because of regulatory changes impacting users with locked rates, the district may see potential rate increases. Mrs. Mellitt also reminded the committee that the district does not lock in the rate for natural gas used to heat many schools. Strong and Thalberg use heating oil; the district contracts to purchase 45,000 of heating oil per season.

Due to the uncertainty of Title I entitlement funds, the FY 25-26 Operating Budget included the math and literacy specialists at our Title I schools (historically funded with the grant). In September, the district was notified of an award of Title I funds of $238,607. The approved grant application uses the funds to pay for hourly tutors at the Title I schools.

All salaries, benefits and taxes have been encumbered in the system.

Currently, the district is monitoring spending and has informed the committee about their consideration of placing a soft freeze on purchases which is consistent with prior years.

a. **Budget Transfer:**

The budget transfer was not available at the time of the meeting.

4. **Miscellaneous:**

None.

The meeting adjourned at 6:00 p.m.

Respectfully submitted,

Jennifer Mellitt
Director of Business & Finance

SOUTHINGTON Public Schools

Kyle R. Fickel
Accounting Manager

MEMO

TO: Finance Committee, Board of Education
DATE: 12/22/2025
RE: RFP Award Recommendation for RFP 2026-002
Agricultural Science Barn Facility, General Contactor

RFP 2026-002 sought proposals for a general contractor to construct a barn facility on the Pleasant Street site next to DePaolo Middle School. A barn package was previously purchased that includes fully engineered blueprints, structural beams and posts, and stall packages. This project is being funded with the Agricultural Science Technology Education (ASTE) grant for the Southington High School Agriscience Program. The RFP was opened publicly on December 10, 2025, at 10:30 AM with two vendor submissions.

J.A. Rosa Construction LLC from Wolcott, CT was the lowest bidder with a base bid price of $717,425. The base bid includes a scope of services divided among numerous construction divisions, including structural concrete, carpentry, roofing, plumbing, electrical, etc. J.A. Rosa has experience in working with multiple school districts on school construction projects as well as building barn facilities.

Several add-alternates were requested as part of this RFP. The Administration is recommending approval of the following add-alternates.

1. Paving and bituminous curbing for the balance of the parking lot and entry.
2. Increasing shingle warranty from 30-year to 40-year shingle.
3. Furnish and install Silent Knight fire alarm system.
4. Furnish Performance Bond.

Vendor proposed add alternates recommended for approval.

1. Furnish and install concrete slab under wings of barn.

A pricing adjustment for the concrete slabs under the barn wings has been requested by the Administration. The vendor's add-alternate price is based on pouring concrete under both wings, but the Administration is requesting one side only.

Based on the above, and with support from the Director of Operations, Mr. Romano, and Director of Agricultural Science Program, Mr. McLaughlin, the Administration recommends awarding RFP 2026-002 to J.A. Rosa Construction LLC. in the amount of $808,430 for their general contracting services outlined in their response. This project will be fully funded using the Connecticut Agricultural Science Technology Education (ASTE) grant program.

Please find attached the RFP Compilation for RFP 2026-002.

Southington Public Schools
Purchasing Department

RFP AWARD REQUEST – RFP 2026-002
SOUTHINGTON AGRICULTURAL SCIENCE
GENERAL CONTRACTOR FOR BARN FACILITY

The above RFP is submitted for AWARD by the Finance Committee and Board of Education.

PROPOSED SUMMARY: This request seeks to award a general contractor for the construction of a new Agriculture Science Barn Facility. The RFP was advertised in the newspaper, posted to the Southington Public Schools website and Planet Bids. Two vendors submitted proposals.

The RFP was opened on December 10, 2025. J.A. Rosa Construction LLC was the lowest bidder, with a base price of $717,425. We recommend awarding RFP 2026-002 to J.A. Rosa Construction LLC with a total proposal price of $808,430. This price includes five (5) add alternates.

The award recommendation memo and bid compilation are attached.

Beginning Date of Project:	January 2026	Ending Date of Project:	August 2026
Funding Source:	**BOE ASTE Grant C/F**	Proposed Cost of Project:	$808,430

_____ _____
Signature of Accounting Manager Date

Superintendent's Direction:

_____ **Approved As Submitted**
_____ **Hold** (pending future action
_____ **Rejected** _____ all _____ part (adjust as directed below)

Direction: _____
_____

_____ _____
Signature of Superintendent of Schools/ designee Date

Finance Committee's Direction:

_____ **Approved As Submitted**
_____ **Hold** (pending future action
_____ **Rejected** _____ all _____ part (adjust as directed below)

Direction: _____
_____

_____ _____
Signature of Finance Committee Chairperson Date

Board of Education's Direction:

_____ **Approved As Submitted**
_____ **Hold** (pending future action
_____ **Rejected** _____ all _____ part (adjust as directed below)

Direction: _____

_____ _____
Signature of Board of Education Chairperson Date

SOUTHINGTON PUBLIC SCHOOLS
RFP 2026-002 AGRICULTURAL SCIENCE GENERAL CONTRACTOR BARN FACILITY
RFP OPENING WEDNESDAY, DECEMBER 10, 2025 AT 10:30 AM

VENDOR NAME:	J.A. ROSA	ACORN BUILDERS
TOTAL COST	$717,425.00	$812,900.00
ADD/ALTERNATES:		
1. Add for paving and bituminous curbing for the balance of the parking lot and entry	$19,157.00	$18,800.00
2. Add for increasing the shingle warranty from a 30-year shingle to a 40-year shingle	$3,172.00	$0.00
3. Add to furnish and install a complete Silent Knight (or equal) fire alarm system	$23,535.00	$12,000.00
4. Furnish Performance Bond for Project	$10,569.00	$39,000.00
SUBTOTAL of RFP (including required Add Alternates)	**$773,858.00**	**$882,700.00**
ADDITIONAL ADD/ALTERNATES (VENDOR ADDED):		
1. Add to furnish and install concrete slab under the wings of the barn *(A)*	$34,572.00	N/A
SUBTOTAL (with recommended Add Alternates)	**$808,430.00**	
2. Voluntary Add to furnish and install trees not in the base bid; Landscaping and planting removed per addendum *(not reccommended for award)*	*$16,886.00*	N/A
TOTAL COST	$825,316.00	$882,700.00

VENDOR INFORMATION:

J.A. Rosa Construction, LLC
17 Townline Road
Wolcott, CT 06716

Acorn Builders, LLC
243 Lake Street
Vernon, CT 06066

(A) The Administration has considered the vendor's add alternate, however the scope was revised to have concrete on one side with crushed stone on the second side.

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ Board Meeting Date January 2026

Decision Requested X Agenda Code 8 a

AGENDA REPORTING FORM

Agenda Topic: Personnel Report

Summary of Issue: This Personnel Report includes appointments, resignations, retirements, and transfers for certified and classified personnel for the 2025-2026 school year. This report includes activity for the month of December 2025.

Background: The human resource department provides the Board of Education with a monthly update of personnel additions/reductions/changes.

Alternative Strategies:

Cost (if applicable): N/A **Funding Source:** Board of Education

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Recommend that the Board of Education approve the Personnel Report as submitted by the human resource department.

Michele Passamano
Signature of Staff Member Submitting Report

Steven Madansky
Signature of Superintendent

Included:
Personnel Report

Personnel Report
December 2025

APPOINTMENTS

	NAME	POSITION	SCHOOL	FTE	EFFECTIVE	DEGREE	SALARY
CLASS	Anwar, Rabia	Paraeducator, Pre-K	SES	0.88	12-10-2025	N/A	$19.43
CLASS	Chasse, Lexi	ABA Therapist, Pre-K	HES/SES	1.0	1-12-2026	N/A	$19.43
CLASS	Daniels, Christina	Administrative Assistant	SHS	1.0	12-15-2025	N/A	$29.23
CLASS	Joseph, Mekenzie	Paraeducator	DES	0.88	1-5-2026	N/A	$19.43
CLASS	Koza-Koc, Michelle	Administrative Assistant	CO	1.0	12-30-2025	N/A	$26.81
CLASS	McIlveen, Johanna	BCBA	District	1.0	12-8-2025	MA	$87,230
CLASS	Moscibrodzki, Shawna	ABA Therapist, CLC	JFK	1.0	12-15-2025	N/A	$21.13
CLASS	Norcross, Jackson	ABA Therapist, Diagnostic	SEES	1.0	1-5-2026	N/A	$21.13
CLASS	Rusiecki, James	ABA Therapist, Diagnostic	SEES	1.0	1-5-2026	N/A	$21.13
CLASS	Santee, Ashley	ABA Therapist, SLC	HES	1.0	12-11-2025	N/A	$21.13
CLASS	Scalzi, Stephanie	Nurse (RN)	JAD	1.0	1-5-2026	N/A	$62,229
CLASS	Skudzienski, Lydia	ABA Therapist, Pre-K	HES/SES	1.0	1-12-2026	N/A	$19.43
CLASS	Sparago, Jessica	Literacy & Numeracy Tutor	HES	1.0	1-12-2026	N/A	$25.00
CLASS	Toce, Jessica	Paraeducator	SES	1.0	1-5-2026	N/A	$19.43
CLASS	Wagor, Bryanna	ABA Therapist, SLC	HES	1.0	1-5-2026	N/A	$21.13

RESIGNATIONS/RETIREMENTS

	NAME	POSITION	SCHOOL	EFFECTIVE	YRS	RET/RES
CERT	Chapman, Jill	Literacy Specialist	District	6-30-2026	36	RETIRE
CERT	Clynes, Patrice	Math Specialist	SES/TES	6-30-2026	25	RETIRE
CERT	DeBoer, Dirk	Science Teacher	SHS	6-30-2026	27	RETIRE
CLASS	Doonan, Cheryl	Literacy & Numeracy Tutor	SEES	12-24-2025	3	RESIGN
CERT	Gonzalez, Dennis	World Language Teacher (1-yr)	JAD	1-25-2026	3 mo.	RESIGN
CERT	Hermann, Denise	Special Education Teacher	JFK	6-30-2026	39	RETIRE
CERT	Hosmer, Elizabeth	TESOL Teacher	SHS	6-30-2026	28	RETIRE
CLASS	McCarty, Mariah	ABA Therapist, Pre-K	HES/SES	1-7-2026	4	RESIGN
CLASS	McEwen, Samantha	Paraeducator	SES	12-24-2025	3 mo.	RESIGN
CERT	Morach, Mary Beth	Literacy Specialist	SES	6-30-2026	20	RETIRE
CERT	Neagle, Robin	Special Education Teacher	HES	6-30-2026	37	RETIRE
CERT	Parent, Mary Beth	Language Arts Teacher	JAD	6-30-2026	32	RETIRE
CLASS	Richardson, Mary	Registered Nurse (RN)	JAD	12-31-2025	2	RESIGN
CERT	Solury, Bethany	Grade 3 Teacher	DES	6-30-2026	25	RETIRE
CERT	Zappone, Amy	Director of Teaching & Learning	CO	12-27-2025	8	RETIRE

ASSIGNMENT CHANGE

	FROM (PREVIOUS ASSIGN)		TO (NEW ASSIGN)		
NAME	POSITION/SCHOOL	FTE	POSITION/SCHOOL	FTE	EFFECTIVE
Borchard, Robin	Paraeducator/DES	1.0	Paraeducator/DES, TLC	1.0	1-5-2026
Green, Rebecca	Paraeducator/DES, TLC	0.88	Paraeducator/DES, TLC	1.0	1-5-2026
Krueger, Jaime	Paraeducator/SHS	1.0	Paraeducator/DES	1.0	12-16-2025
Parisi, Michael	Custodian/CO	0.49	Custodian/HES	1.0	1-5-2026

TRANSFERS

	FROM (PREVIOUS ASSIGN)		TO (NEW ASSIGN)		
CERT NAME	POSITION/SCHOOL	FTE	POSITION/SCHOOL	FTE	EFFECTIVE

None to report

Personnel Report
December 2025

STIPENDS

COACHING

Resignations/Non-Renewals

None to report

Appointments

Aiello, Michael	Boys Swimming & Diving Assistant Coach	SHS	STIPEND

OTHER

Resignations/Non-Renewals

None to report

Appointments

Garry, Michael	Middle School Science Curriculum Specialist	District	STIPEND
Miceli, Marc	Newspaper Advisor	JFK	STIPEND

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 9 b.

AGENDA REPORTING FORM

Agenda Topic: Policy 5131.7 – Restorative Practices Response - NEW – Second Reading.

Summary of Issue: The Policy & Personnel Committee has reviewed Policy 5131.7 – Restorative Practices Response.

Background: The Policy and Personnel Committee reviews policies with the administration to ensure they are current and appropriate.

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve Policy 5131.7 as presented by the Policy & Personnel Committee.

Titles of Attachments:

1. DRAFT Policy 5131.7

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Policy 5131.7
Restorative Practices Response – New Policy
Draft

Series 5000: Students

RESTORATIVE PRACTICES RESPONSE

The Southington Board of Education (the "Board") is committed to identifying strategies to improve school climate, including, but not limited to, by responding to challenging behavior and implementing evidence and research-based interventions, including restorative practices. Restorative practices may be implemented by school employees for incidents of challenging behavior, bullying, and/or harassment in the school environment, or other forms of student conflict that is nonviolent and does not constitute a crime. Restorative practices shall not include the involvement of a school resource officer or other law enforcement official unless such challenging behavior or other conflict escalates to violence and/or constitutes a crime. In addition, the Southington Public Schools (the "District") shall address challenging behavior, bullying, and harassment in accordance with the Board's Student Discipline policy and any other applicable Board policy, administrative regulations, and/or school rules.

For purposes of this policy:

- "Restorative practices" means evidence and research-based system-level practices that focus on (A) building high-quality, constructive relationships among the school community, (B) holding each student accountable for any challenging behavior, and (C) ensuring each such student has a role in repairing relationships and reintegrating into the school community.

- "Challenging behavior" means behavior that negatively impacts school climate or interferes, or is at risk of interfering, with the learning or safety of a student or the safety of a school employee.

- "Bullying" means unwanted and aggressive behavior among children in grades kindergarten to twelve, inclusive, that involves a real or perceived power imbalance. "Bullying" includes "cyberbullying", which means any act of bullying through the use of the Internet, interactive and digital technologies, cellular mobile telephone or other mobile electronic devices or any other electronic communication.

- "School climate" means the quality and character of the school life, with a particular focus on the quality of the relationships within the school community, and which is based on patterns of people's experiences of school life and that reflects the norms, goals, values, interpersonal relationships, teaching, learning, leadership practices and organizational structures within the school community.

- "School climate improvement plan" means a building-specific plan developed by the school climate committee, in collaboration with the school climate specialist, using school climate survey data and any other relevant information, through a process that engages all members of the school community and involves such members in a series of overlapping systemic improvements, school-wide instructional practices and relational practices that prevent, identify and respond to challenging behavior, including, but not limited to, alleged bullying and harassment in the school environment.

- "School environment" means a school-sponsored or school-related activity, function or program, whether on or off school grounds, including at a school bus stop or on a school bus or other vehicle owned, leased or used by the Board, and may include other activities, functions or programs that occur outside of a school-sponsored or school-related activity, function or program if bullying at or during such other activities, functions or programs negatively impacts the school environment.

The Board directs the administration of the District to develop a continuum of strategies to prevent, identify, and respond to challenging behavior, bullying, and harassment. Such strategies shall include research-based interventions, including restorative practices, and may be included in each school's school climate improvement plan. Such strategies shall be shared with the school community, including, but not limited to, through publication in the relevant student handbook.

The Board further directs the Superintendent or designee to collect and maintain data regarding types of challenging behavior addressed using the Restorative Practices Response Policy and data concerning the implementation of restorative practices.

Legal References:

Conn. Gen. Stat. § 10-222aa

Conn. Gen. Stat. § 10-222dd

Conn. Gen. Stat. § 10-222jj

ADOPTED: December 2025

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 9 d.

AGENDA REPORTING FORM

Agenda Topic: Policy 6161.2 – Library Collection Development and Maintenance Policy - NEW – Second Reading.

Summary of Issue: The Policy & Personnel Committee has reviewed Policy 6161.2 – Library Collection Development and Maintenance.

Background: The Policy and Personnel Committee reviews policies with the administration to ensure they are current and appropriate.

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve Policy 6161.2 as presented by the Policy & Personnel Committee.

Titles of Attachments:

1. DRAFT Policy 6161.2

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Policy 6161.2
Library Collection Development and Maintenance –
NEW Policy
Draft

SERIES: 6000 INSTRUCTION

LIBRARY COLLECTION DEVELOPMENT AND MAINTENANCE POLICY

The Southington Board of Education recognizes that library and other education materials should be provided for the interest, information and enlightenment of all students, and represent a wide range of varied and diverging viewpoints in the collection as a whole.

Students shall have access to the library and other educational material that is relevant to the research, independent reading interests and educational needs of students based on a student's age, development or grade level.

The library media center is an important place for voluntary inquiry, the dissemination of information and ideas, and the promotion of free expression and free access to ideas by students.

A school library media specialist is professionally trained to curate and develop a collection that shall provide students with access to the widest array of age-appropriate and grade level-appropriate library and other educational material.

The Southington Board of Education directs the Superintendent to create an administrative regulation that establishes a procedure for a certified school library media specialist to continually review library and other educational material within a school library media center using professionally accepted standards which shall include, but need not be limited to: the material's relevance, physical condition of the material, availability of duplicates or copies of the material, availability of more recent age-appropriate or grade-level appropriate material and continued demand for the material.

Legal Reference: Public Act 25-168 An Act Concerning the State Budget for the Biennium Ending June 30, 2027, and Making Appropriations Therefor, and Provisions Related to Revenue and Other Items Implementing the State Budget.

Legal Reference: PA 25-168, Section 321

Policy adopted: December 2025

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only_____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 9 e.

AGENDA REPORTING FORM

Agenda Topic: Policy 6161.3 – Library Display and Program Policy - NEW – Second Reading.

Summary of Issue: The Policy & Personnel Committee has reviewed Policy 6161.3 – Library Display and Program Policy.

Background: The Policy and Personnel Committee reviews policies with the administration to ensure they are current and appropriate.

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve Policy 6161.3 as presented by the Policy & Personnel Committee.

Titles of Attachments:

1. DRAFT Policy 6161.3

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Policy 6161.3
Library Display and Program – NEW Policy
Draft

Series 6000: Instruction

Library Display and Program Policy

Library displays and student programs are critical in serving as resources for voluntary inquiry and the dissemination of information and ideas, as well as promoting free expression and free access to ideas by students.

The Southington Board of Education recognizes that library displays are provided for the interest, information and enlightenment of all students, represent a wide range of varied and diverging viewpoints, and provide access to content that is relevant to the research, independent interests and educational needs of students.

The Southington Board of Education acknowledges that a school library media specialist is professionally trained to curate and develop displays and programs that shall provide students with access to the widest array of age-appropriate and grade-level-appropriate library and other educational materials.

Legal Reference: Public Act 25-168 An Act Concerning the State Budget for the Biennium Ending June 30, 2027, and Making Appropriations Therefor, and Provisions Related to Revenue and Other Items Implementing the State Budget.

Policy adopted: **December 2025**

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 9 f.

AGENDA REPORTING FORM

Agenda Topic: Policy 6161.4 – Library Material Review and Reconsideration Policy - NEW – Second Reading.

Summary of Issue: The Policy & Personnel Committee has reviewed Policy 6161.4 – Library Material Review and Reconsideration Policy.

Background: The Policy and Personnel Committee reviews policies with the administration to ensure they are current and appropriate.

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve Policy 6161.4 as presented by the Policy & Personnel Committee.

Titles of Attachments:

1. DRAFT Policy 6161.4

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Policy 6161.4

Library Material Review and Reconsideration - New Policy

Draft

Series 6000: Instruction

Library Material Review and Reconsideration Policy

The Southington Board of Education understands that, on occasion, a member of the public will wish to lodge a complaint against instructional material used in the classroom or available in the school library/media center. Consideration of requests to reconsider and remove material, displays, or student programs, is limited to individuals with a vested interest. An individual with vested interest may challenge any library and other educational materials, display or student program by initiating a review of such material via the submission of a request for reconsideration form.

It shall be the policy of the Southington Board of Education that the removal, exclusion or censoring of any book shall not occur on the sole basis that a person with a vested interest finds such book offensive. No library and other educational material, display or program shall be removed from library media centers, or programs be canceled, because of the origin, background or viewpoints expressed in such material, display or program or because of the origin, background or viewpoints of the creator of such material, display or program. Library and other educational materials, displays and student programs shall only be excluded for legitimate pedagogical purposes or for professionally accepted standards of collection maintenance practices as adopted in the collection development and maintenance policy or the display and program policy.

Until a final decision is made by the review committee any library and other educational material being challenged shall remain available in the school library media center according to such material's catalog record and be available for a student to reserve, check out or access.

A school district may consolidate any requests for review and reconsideration of the same challenged library and other educational material. Once a decision has been made by the review committee on any library and other educational material, such material cannot be subject to a new request for review and reconsideration for a period of three years.

The Southington Board of Education will review and update this policy as necessary every five years.

Definitions

"Library and other educational material" means any material belonging to, on loan to or otherwise in the custody of a school library media center, including, but not limited to, nonfiction and fiction books, magazines, reference books, supplementary titles, multimedia and digital material, software and other material not required as part of classroom instruction.

"School library staff member" means a school library media specialist, school librarian, any certified or non-certificated staff member whose assignment is in the school library or any individual carrying out or assisting with the functions of a school library media specialist or school librarian.

Series 6000: Instruction

Library Material Review and Reconsideration Policy

"Individual with a vested interest" means any school staff member employed by a local or regional board of education, parent or guardian of a student currently enrolled in a school at the time a reconsideration form is filed and any student currently enrolled in a school at the time a reconsideration form is filed.

"Remove" means deliberately taking library material out of a library's collection. **"Remove"** does not include the process of clearing such collection of any materials that are no longer useful.

Material Review and Reconsideration Procedure

The Board of Education has established the following procedure for addressing complaints regarding the utilization of library and other educational materials:

1. Individuals with a vested interest may initiate the review or reconsideration of any library and other educational materials, display or student program by submitting a request for recommendation form to the principal of the school in which the library and other education material is being challenged.

2. The Principal, or the Principal's designee, shall promptly forward the request for reconsideration to the Superintendent of Schools for the school district.

3. The Superintendent, or the Superintendent's designee, shall appoint a review committee consisting of:

a. The Superintendent, or the Superintendent's designee

b. the Principal of the school in which the library and other educational material is being challenged, or the Principal's designee

c. the Director of Curriculum, or a person in an equivalent

d. a representative from the local or regional board of education

e. at least one grade-level-appropriate teacher familiar with the library material, provided the teacher selected is not the individual who submitted the form

f. a parent or guardian of a student age thirteen years or younger enrolled in the school district, provided the parent or guardian selected is not the individual who submitted the form

g. a parent or guardian of a student age fourteen years or older enrolled in the school district, provided the parent or guardian selected is not the individual who submitted the form

h. a certified school librarian employed by such board or employed by another board of education in the state.

In cases where such form is submitted by a student enrolled in grades nine to twelve, inclusive, and when appropriate and at the discretion of the superintendent, a student enrolled in grades nine to twelve, inclusive, may serve on the review committee if such student did not submit the reconsideration form, provided the superintendent consults with the principal of the school involved in such reconsideration request prior to making this determination whether to include such student on the review committee.

4. The review committee shall evaluate the request for reconsideration form by reading the challenged material in its entirety and evaluating the challenged material against the school district's Collection Development and Maintenance Policy.

5. The review committee shall make a written decision on whether to remove the challenged material within sixty school days from the date of receiving such request and provide a copy of the committee's decision and report to the individual with a vested interest who submitted the form and to the principal of the school.

6. The individual with a vested interest who submitted the request for reconsideration form may appeal to the review committee's decision to the local or regional board of education for the school district. The Board shall determine whether the reconsideration process was followed and publish the decision on the Internet website of the school district.

General Provisions

Any school library media specialist or school library staff member who, in good faith, implements the policies described in this section shall be immune from any liability, civil or criminal, that might otherwise be incurred or imposed and shall have the same immunity with respect to any judicial proceeding that results from such implementation.

Legal Reference: Public Act 25-168 An Act Concerning the State Budget for the Biennium Ending June 30, 2027, and Making Appropriations Therefor, and Provisions Related to Revenue and Other Items Implementing the State Budget.

Policy adopted: December 2025

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 g.**

AGENDA REPORTING FORM

Agenda Topic: K-5 Health – New Course Curriculum – Second Reading.

Summary of Issue: K-5 Health – New Course Curriculum - Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the K-5 Health – New Course Curriculum – as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Frank Ryan

Signature of Staff Member Submitting Report

Peter Madaras

Signature of Superintendent of Schools

SOUTHINGTON Public Schools

Kindergarten Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1 & 2	Ready, Set GO! A Journey to Health	Describe habits that improve individual health such as getting enough sleep, eating nutritious foods, and exercising; learn the importance of respectful communication and forming positive friendships.	1.2.2 Recognize that there are multiple dimensions of health.
3 & 4	Every Journey Needs a Guide	Name people who can provide health care guidance such as parents, family members, other trusted adults, teachers, and health care professionals. Learn the importance of respectful communication and forming positive friendships.	5.2.2 Differentiate between situations when a health-related decision can be made individually or when assistance is needed. 6.2.2 Identify who can help when assistance is needed to achieve a personal health goal.
5	The Five Senses	Identify and demonstrate use of the five senses.	4.2.2 Demonstrate listening skills to enhance health.
6 & 7	Brushing and Flossing	Learn proper techniques for good oral health.	7.2.1 Demonstrate healthy practices and behaviors to maintain or improve personal health.

8	The Dentist	Understand the importance of regular oral health checkups.	1.2.5 Describe why it is important to seek health care.
9	Tooth-Friendly Food & Drink	Identify the effect of various types of food on oral health.	8.2.1 Make requests to promote personal health.
10	What is Mental Health?	Develop and use appropriate skills to identify and manage conditions related to mental health and wellness; Discuss and explain how thoughts and emotions are related.	4.2.1 Demonstrate healthy ways to express needs, wants, and feelings.
11	My Space	Identify appropriate personal boundaries, privacy, and space; Identify roles and characteristics of a trusted adult; Identify and role play refusal skills such as saying "no" to protect personal space and to avoid unsafe situations.	4.4.2 Demonstrate ways to tell a trusted adult if threatened or harmed.

SOUTHINGTON Public Schools

First Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1	CATCH MVP Healthy Habits	Describe personal hygiene and health habits that enhance individual health such as hand washing, oral hygiene, and getting enough sleep.	1.2.1 Identify that healthy behaviors impact personal health.
2	Health Check-ups	Identify types of healthcare professionals and describe the services they provide such as medical checkups, dental exams, and vision and hearing screenings.	1.2.5 Describe why it is important to seek health care. 3.2.2 Identify ways to locate school and community health helpers. 5.2.1 Identify situations when a health-related decision is needed.
3	Fun Ways to Exercise	Describe what physical activity is and why it's important. Identify and participate in various forms of physical activity that can be applied at home.	1.2.2 Explain the importance of choosing healthy foods and daily physical activity.
4	Gobble, Gobble, GO!	Identify food groups and the types of foods that help the body grow, including fruits and vegetables, dairy, and protein.	7.2.1 Demonstrate healthy practices and behaviors to maintain or improve personal health.
5 & 6	Oral Health Care	Practice proper techniques for good oral health. Explain that you have to floss once a day to clean between teeth.	7.2.1 Identify practices and behaviors that support the health and well-being of self and others.
7	The Dentist	Describe the dentist as a doctor who cares for your teeth.	3.2.1 Identify characteristics of trusted adults and other individuals who support health and well-being.
8	Germs	Learning about germs and how they spread.	1.2.1 Identify that healthy behaviors impact personal health. 7.2.1 Identify practices and behaviors that support the health and well-being of self and others.

9 & 10	Avoiding Danger	Identify the purpose and demonstrate the proper use of protective equipment such as seat belts, booster seats, and bicycle helmets; Describe the difference between safe and unsafe environments; Describe unsafe situations.	1.2.4 List ways to prevent common childhood injuries.
11	The Power of the Sun & Safe Summer	Describe habits that improve individual health; identify the purpose and use of protective safety equipment; review the difference between safe and unsafe environments.	7.2.2 Demonstrate behaviors that avoid or reduce health risks. 6.2.1 Identify a short-term personal health goal and take action toward achieving the goal. 8.2.1 Make a request to promote personal health.

SOUTHINGTON Public Schools

Second Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1	Germ Busters	Discuss ways in which germs are transmitted, methods of preventing the spread of germs, and the importance of immunization; Identify common illnesses and diseases, including asthma, diabetes, and epilepsy, and their symptoms.	1.2.3 Describe ways to prevent communicable diseases.
2	Bitty Bugs	Describe where head lice and biting insects that may cause illness, including ticks and mosquitos, are commonly encountered and the signs and symptoms of illness that may occur from contact with them.	7.2.2 Demonstrate behaviors that avoid or reduce health risks.
3	Eat The Rainbow	Explain that fruits, protein, vegetables and dairy provide essential vitamins and minerals.	8.2.2 Encourage peers to make positive health choices.
4	Water-Go! Sugar-Woah!	Identify ingredients that make foods and drinks unhealthy such as added sugar and other sweeteners; Demonstrate an understanding that the human body is composed mostly of water and explain the importance of drinking water daily; Identify the benefits of making healthy beverage choices, including water and milk, and limiting sweetened beverages such as soda and sports drinks.	7.2.1 Demonstrate healthy practices and behaviors to maintain or improve personal health.
5	Let's Go Exercising & Energy Balance	Describe habits that improve individual health such as getting enough sleep, eating nutritious foods, and exercising	6.2.1 Identify a short-term personal health goal and take action toward achieving the goal.
6	Beware of Portion Size	Identify healthy portion sizes for common food items; Explain how media can influence an individual's health choices such as television advertisements for fast foods and breakfast cereals	2.2.3 Describe how the media can influence health behaviors. 7.2.2 Demonstrate behaviors that avoid or reduce health risks.

7	Food Sensitivity	Describe basic facts of food allergy safety such as not sharing food; Explain the importance of respecting others who have allergies and know when and how to seek help in a food-related emergency	5.2.1 Identify situations when a health-related decision is needed.
8	Body Systems	Examine the structure, function, and relationships of body systems and their relevance to personal health.	1.2.2 Recognize that there are multiple dimensions of health. 4.2.2 Demonstrate listening skills to enhance health.
9	Taking Care of Myself	Discuss the signs and symptoms associated with negative stress such as loss or grief; Identify positive and negative stressors and how they impact emotions and learning; Describe and practice calming and self-management strategies	4.2.1 Demonstrate healthy ways to express needs, wants, and feelings. 5.2.2 Differentiate between situations when a health-related decision can be made individually or when assistance is needed.
10	Caring for Others	Identify and practice ways to solve conflicts with friends and peers; Discuss how to treat peers with different learning needs with dignity and respect; Explain the effect of peer influence on an individual's social and emotional health	2.2.1 Identify how the family influences personal health practices and behaviors.
11	Personal Safety Plan	Recall parents'/caregivers' phone numbers and home address as part of a personal safety plan	4.2.4 Demonstrate ways to tell a trusted adult if threatened or harmed.

SOUTHINGTON Public Schools

Third Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1	Why I'm a CATCH MVP	Explain the physical, mental, and social benefits of fitness. Describe the importance of goal setting and set goals for making healthy food choices and achieving appropriate levels of physical activity.	1.5.2 Identify examples of emotional, intellectual, physical, and social health.
2 & 3	What's Contagious?	Explain ways in which germs are transmitted, methods of preventing the spread of germs, and the importance of immunization. Identify common vectors, including ticks and mosquitos, and explain how and when to perform a self-check for vectors.	1.5.4 Describe ways to prevent common childhood injuries and health problems. 7.1.5 Demonstrate practices and behaviors that reduce or prevent health risks.
4	Physical Activity Means Go!	Explain the physical, mental, and social benefits of fitness.	1.5.2 Identify examples of emotional, intellectual, physical, and social health.
5	Brain Development	Discuss and explain how the brain develops during childhood and the role the brain plays in behavior. Define sources of stress, including trauma, loss, and grief.	2.5.2 Identify the influence of culture on health practices and behaviors.
6 & 7	Taking Care of Your Brain & Body	Identify ways to express and manage overwhelming emotions without harming oneself, others, or property such as calming strategies or talking to a parent or another trusted adult. Describe and practice healthy behaviors that reduce stress. Describe situations that call for professional mental health services. Discuss healthy alternatives to harming oneself , others, or property and the importance of telling a parent or another trusted adult when someone is struggling to manage overwhelming emotions or lacks support	1.5.2 Identify examples of emotional, intellectual, physical, and social health.

8 & 9	Substance Misuse	Identify the difference between safe and unsafe substances. Define what medicine is and explain that medicine should only be used with adult permission and supervision.	8.1.5 Give factual information to improve the health of self and others.
10	Caring Communities	Demonstrate strategies for resolving conflict. Describe strategies to support others in managing different learning needs. Identify factors such as school climate and safety measures that affect an individual's physical, emotional, and social health.	1.5.3 Describe ways in which safe and healthy school and community environments can promote personal health. 2.5.1 Describe how family influences personal health practices and behaviors.
11	My Space	Differentiate between healthy and unhealthy relationships. Demonstrate effective strategies to address conflict. Identify refusal skills such as saying "no" when privacy, personal boundaries, or personal space are not respected.	4.5.3 Demonstrate nonviolent strategies to manage or resolve conflict.

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Fourth Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1 & 2	Fire Prevention	Understand and explain the key fire prevention messages. Identify and demonstrate safe behaviors that prevent injury and promote personal health.	1.5.1: Describe the relationship between healthy behaviors and personal health. 7.5.2: Demonstrate behaviors that avoid or reduce health risks.
3	You to the Rescue	Demonstrate safety and first aid knowledge to prevent and treat injuries. Identify and demonstrate strategies for preventing and responding to injuries. Develop a home-safety and emergency response plan such as a fire safety plan.	5.5.1 Identify health-related situations that might require a thoughtful decision.
4 & 5	Healthy Me	Understand strategies for maintaining personal hygiene and health habits. Identify decision-making skills that promote individual, family, and community health. Identify examples of emotional, intellectual, physical, and social health. Describe the relationship between healthy behaviors and personal health. Identify the influence of culture on health practices and behaviors.	1.5.1 Describe the relationship between healthy behaviors and personal health. 2.5.4 Describe how the school and community can support personal health practices and behaviors.
6	Body Systems	Identify and describe the primary functions and major components of body systems and understand their relevance to personal health.	7.5.3 Demonstrate a variety of behaviors to avoid or reduce health risks.
7	Clean Body, Healthy Smile	Identify the importance of taking personal responsibility for developing and maintaining personal hygiene and health habits.	7.5.2 Demonstrate a variety of healthy practices and behaviors to maintain or improve personal health.
8 & 9	Injury Prevention	Demonstrate safety knowledge and responsible decision-making skills to prevent injuries and accidents.	7.5.3 Demonstrate a variety of behaviors to avoid or reduce health risks. 1.5.4 Describe ways to prevent common childhood injuries and health problems.

10	Say No to Bullying	Describe how to effectively respond to bullying of oneself or others. Explain consequences that result from bullying as well as identify methods available to report bullying. Describe the negative impact bullying has on both the victim and the bully.	2.5.3 Identify how peers can influence healthy and unhealthy behaviors.
11	Bullying Scenarios	Describe how to effectively respond to bullying of oneself or others. Explain consequences that result from bullying. Identify methods available to report bullying; Describe the negative impact bullying has on both the victim and the bully.	2.5.3 Identify how peers can influence healthy and unhealthy behaviors.

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Fifth Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1	Nutrients Get Us GO-ing!	Explain why the body needs each of the six major nutrients contained in foods.	4.5.1 Demonstrate effective verbal and nonverbal communication skills to enhance health.
2	The Whole Truth about Foods	Explain why the body needs each of the six major nutrients contained in foods. Identify and categorize foods based on saturated and unsaturated fat content.	8.5.1 Express opinions and give accurate information about health issues. 5.5.3 List healthy options to health-related issues or problems.
3	Take Out the Sugar and Caffeine	Identify the recommended guidelines for added sugar consumption and explain how excess sugar consumption can impact health, including causing dental cavities and obesity. Identify caffeine content of common beverages and health concerns associated with excess caffeine consumption.	3.5.2 Locate resources from home, school, and community that provide valid health information.
4	Knowing What You Eat	Identify nutritional information on menus and food labels. Describe the importance of accessing health information through a variety of credible health resources. Describe how healthy and unhealthy behaviors affect body systems and demonstrate refusal skills in dealing with unhealthy eating situations.	3.5.1 Identify characteristics of valid health information, products, and services. 4.5.2 Demonstrate refusal skills that avoid or reduce health risks. 2.5.5 Explain how media influences thoughts, feelings, and health behaviors. 5.5.5 Choose a healthy option when making a decision.
5	Health Options	Explain the importance of health information and how to seek assistance in making decisions about health. Describe how health care decision making is influenced by external factors such as cost and access. Identify how to distinguish between myth and fact when accessing information about health.	2.5.2 Identify the influence of culture on health practices and behaviors. 4.5.4 Demonstrate how to ask for assistance to enhance personal health.

6	Dealing with Illness	Explain how to manage common minor illnesses such as colds and skin infections. Distinguish between communicable and noncommunicable illnesses. Explain actions to take when illness occurs, including asthma, diabetes, and epilepsy.	1.5.5 Describe when it is important to seek health care.
7	Disease and Allergy Awareness	Describe the connection between physical activity & dietary choices with the prevention of obesity, heart disease, and diabetes. Identify the common food allergens listed on food packaging.	7.5.1 Identify responsible personal health behaviors. 5.5.4 Predict the potential outcomes of each option when making a health-related decision.
8	Goal Setting for a Lifetime of Health	Describe the importance of goal setting and set goals for making healthy food choices and achieving appropriate levels of physical activity.	6.5.1 Set a personal health goal and track progress toward its achievement. 6.5.2 Identify resources to assist in achieving a personal health goal.
9 & 10	Substance Misuse	Describe the physiological effects of alcohol, vaping products, tobacco, and dangerous substances.	5.5.3 List healthy options to health-related issues or problems.
11	Online Safety	Identify appropriate ways to communicate in digital and online environments & discuss who is appropriate to communicate with and what is appropriate information to share in digital and online environments. Explain the benefits of identity protection in digital and online environments. Analyze distinguishing characteristics of cyberbullying.	2.5.6 Describe ways that technology can influence personal health.
12	Decision Making	Understand what decision making is and identify the steps in making a smart decision. Practice making thoughtful choices through role-play and discussion.	5.4.5 Identify options and their potential outcomes when making a health-related decision.
13	Growth and Development	I can identify the basic parts of the human reproductive system and describe their functions, and I can explain how hormones play a role in the changes that happen during puberty.	1.1.5 Describe basic reproductive parts and their functions. 1.2.5 Explain common human sexual development and the role of hormones.

Elementary Health Education

SPS Curriculum and Instruction- Fall 2025

SOUTHINGTON
Public Schools

CATCH

Coordinated Approach To Child Health

Built-In Educator Support

- ✓ Lessons are accessible through a user-friendly online platform designed for educators
- ✓ Each lesson includes presentation slides with a slide-by-slide script
- ✓ Tools and strategies to support both formal and informal assessment of student development
- ✓ Year-round opportunities for professional development and continous virtual support

- **Health Ed Journeys is a comprehensive K-8 Health curriculum that aligns with national SHAPE standards, as well as Connecticut's Healthy and Balanced Living Framework.**
- **Curriculum is backed by 120 peer reviewed scientific articles.**

Curriculum Components

- Age-appropriate lessons that emphasize skill building, real world application, and integrate movement and physical activity
- Organized into grade bands and delivered through instructional units focused on a key health topic
- Student Activity Sheets that encourage self-reflection and setting personal health goals
- Each lesson can be taught in a single class session or broken into "bite-size pieces" of approximately 10 minutes each

Key Health Topics

- Foundational Health
- Nutrition & Physical Activity
- Physical Health & Hygiene
- Mental Health & Wellness
- Substance Misuse Prevention
- Injury Prevention & Safety

Health Education Standards

- A quality health curriculum begins with the standards
- The National Health Ed. Standards were recently updated (Jan. 2024)
    - CT State Health Ed. Standards are aligned with the National Standards (May 2022)

The Standards Driving Our Curriculum:

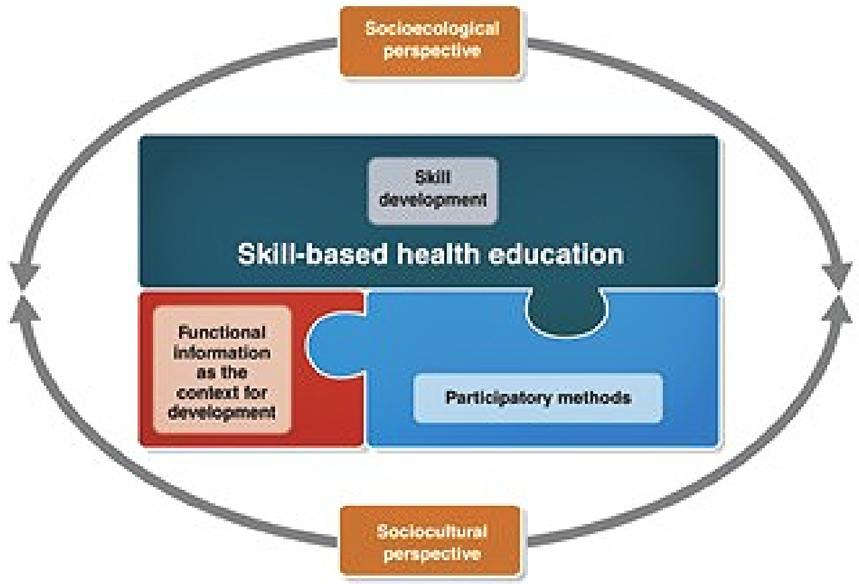
- Standard 1: Concepts/Functional Health Info.
- Standard 2: Analyzing Influences
- Standard 3: Accessing Valid Health Info.
- Standard 4: Interpersonal Communication
- Standard 5: Decision Making
- Standard 6: Goal Setting
- Standard 7: Self-Management
- Standard 8: Advocacy

WHAT IS SKILLS-BASED HEALTH EDUCATION?

- Skills-based, not content based

- Skill development is the **FOUNDATION** of instruction
    - Students have multiple opportunities to practice the skill(s) throughout each lesson

- Content is the **CONTEXT** for teaching skills
    - The skill is taught through the topic/content



Kindergarten

Each lesson includes:

- Two skills-based learning activities
- End of Lesson Quiz

OVERVIEW: Throughout the marking period, kindergarten students will develop foundational health and wellness skills by learning about sleep, exercise, nutrition, oral hygiene, and respectful communication. Instruction will also emphasize identifying trusted health helpers, understanding personal space, and fostering emotional regulation to support positive mental health.

Lessons:

Lessons 1 & 2: A Journey to Health: Sleeping, exercise, nutrition, etc.
Lessons 3 & 4: Every Journey Needs a Guide
Lesson 5: The Five Senses
Lessons 6 & 7: Brushing & Flossing
Lesson 8: The Dentist
Lesson 9: Tooth Friendly Food & Drink
Lesson 10: What is Mental Health?
Lesson 11: My Space

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Kindergarten Health Scope and Sequence

	Lesson	Objectives	National Hea Standards
1 & 2	Ready, Set GO! A Journey to Health	Describe habits that improve individual health such as getting enough sleep, eating nutritious foods, and exercising; learn the importance of respectful communication and forming positive friendships.	1.2.2 Recognize tha there are multiple dimensions of healt
3 & 4	Every Journey Needs a Guide	Name people who can provide health care guidance such as parents, family members, other trusted adults, teachers, and health care professionals. Learn the importance of respectful communication and forming positive friendships.	5.2.2 Differentiate between situations when a health-relate decision can be mad individually or when assistance is needed 6.2.2 Identify who c help when assistanc needed to achieve a personal health goal
5	The Five Senses	Identify and demonstrate use of the five senses.	4.2.2 Demonstrate

Grade One

OVERVIEW: The first-grade health curriculum focuses on developing foundational health and wellness habits through lessons on personal hygiene, regular health check-ups, physical activity, nutrition, and oral care. Students learn to identify healthy behaviors, recognize the role of healthcare professionals, and practice daily routines that promote lifelong well-being and self-care.

Lessons:

Lesson 1 : Healthy Habits
Lesson 2: Health Check-ups
Lesson 3: Fun Ways to Exercise
Lesson 4: Gobble, Gobble, Go!-Identifying food groups
Lessons 5 & 6: Oral Health Care
Lesson 7: The Dentist
Lesson 8: Germs
Lesson 9 & 10: Avoiding Danger
Lesson 11: The Power of the Sun

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First Grade Health Scope and Sequence

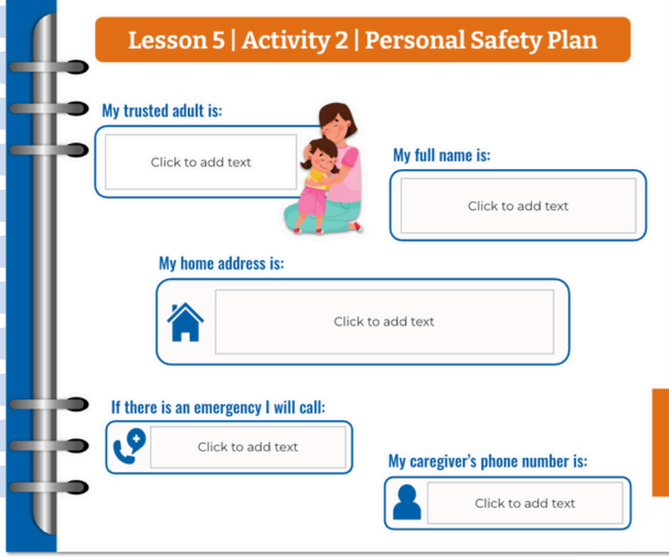
	Lesson	Objectives	National Health Standards
1	CATCH MVP Healthy Habits	Describe personal hygiene and health habits that enhance individual health such as hand washing, oral hygiene, and getting enough sleep.	1.2.1 Identify that healthy behaviors impac personal health.
2	Health Check-ups	Identify types of healthcare professionals and describe the services they provide such as medical checkups, dental exams, and vision and hearing screenings.	1.2.5 Describe why it is important to seek health care. 3.2.2 Identify ways to locate school and community health helpers. 5.2.1 Identify situations when a health-rela decision is needed.
3	Fun Ways to Exercise	Describe what physical activity is and why it's important. Identify and participate in various forms of physical activity that can be applied at home.	1.2.2 Explain the importance of choosing healthy foods and daily physical activity.

Grade Two

OVERVIEW: The second-grade health curriculum emphasizes disease prevention, nutrition awareness, and the development of healthy lifestyle habits. Students explore how germs spread, practice personal hygiene, make informed food and beverage choices, and understand the benefits of physical activity and rest. The lessons promote responsibility for personal health and encourage positive decision-making for overall well-being.

Lessons:

Lesson 1 : Germ Busters
Lesson 2: Bitty Bugs
Lesson 3: Eat The Rainbow (Nutrition)
Lesson 4: Water-Go! Sugar-Woah!
Lesson 5: Let's Go Exercising
Lesson 6: Beware of Portion Sizes
Lesson 7: Food Sensitivity
Lesson 8: Body Systems
Lesson 9: Taking Care of Myself
Lesson 10: Caring for Others
Lesson 11: Personal Safety Plan



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Second Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1	Germ Busters	Discuss ways in which germs are transmitted, methods of preventing the spread of germs, and the importance of immunization; Identify common illnesses and diseases, including asthma, diabetes, and epilepsy, and their symptoms.	1.2.3 Describe ways to prevent communicable diseases.
2	Bitty Bugs	Describe where head lice and biting insects that may cause illness, including ticks and mosquitos, are commonly encountered and the signs and symptoms of illness that may occur from contact with them.	7.2.2 Demonstrate behaviors that avoid or reduce health risks.
3	Eat The Rainbow	Explain that fruits, protein, vegetables and dairy provide essential vitamins and minerals.	8.2.2 Encourage peers to make positive health choices.

Grade Three

OVERVIEW: The third-grade health curriculum emphasizes physical fitness, emotional regulation, and responsible decision-making to support overall wellness. Students learn about the benefits of exercise, goal setting, and hygiene practices that prevent illness. Lessons also address mental health awareness, conflict resolution, healthy relationships, and the safe use of substances, empowering students to make informed, respectful, and health-conscious choices.

Lessons:

Lesson 1 : Why I'm a CATCH MVP (Benefits of fitness, goal setting)
Lessons 2 & 3: What's Contagious
Lesson 4: Physical Activity Means Go!
Lesson 5: Brain Development
Lessons 6 & 7: Taking Care of Your Brain & Body
Lessons 8 & 9: Substance Misuse
Lesson 10: Caring Communities
Lesson 11: My Space

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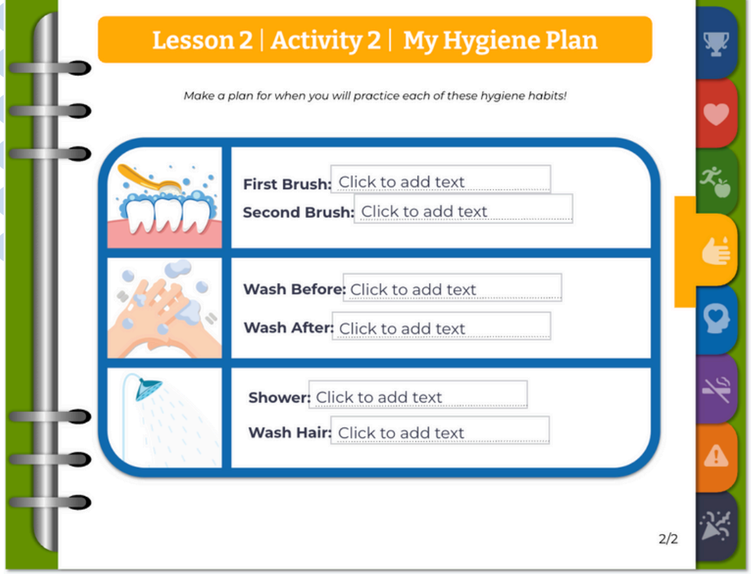
Third Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1	Why I'm a CATCH MVP	Explain the physical, mental, and social benefits of fitness. Describe the importance of goal setting and set goals for making healthy food choices and achieving appropriate levels of physical activity.	1.5.2 Identify examples of emotional, intellectual, physical, and social health.
2 & 3	What's Contagious?	Explain ways in which germs are transmitted, methods of preventing the spread of germs, and the importance of immunization. Identify common vectors, including ticks and mosquitos, and explain how and when to perform a self-check for vectors.	1.5.4 Describe ways to prevent common childhood injuries and health problems. 7.1.5 Demonstrate practices and behaviors that reduce or prevent health risks.
4	Physical Activity	Explain the physical, mental, and social benefits of fitness.	1.5.2 Identify examples of emotional, intellectual, physical, and social health.

Grade Four

OVERVIEW: This fourth grade curriculum empowers students to develop essential health and safety skills by exploring personal hygiene, injury prevention, and home emergency planning. Students will also examine the role of healthy decision-making, understand body systems, and learn strategies to recognize and respond to bullying, fostering overall physical, emotional, and social well-being.



Lessons:

Lessons 1 & 2: Fire Prevention
Lesson 3: You to the Rescue
Lessons 4 & 5: Healthy Me
Lesson 6: Body Systems
Lesson 7: Clean Body, Healthy Smile
Lessons 8 & 9 : Injury Prevention
Lesson 10: Say No to Bullying
Lesson 11: Bullying Scenarios

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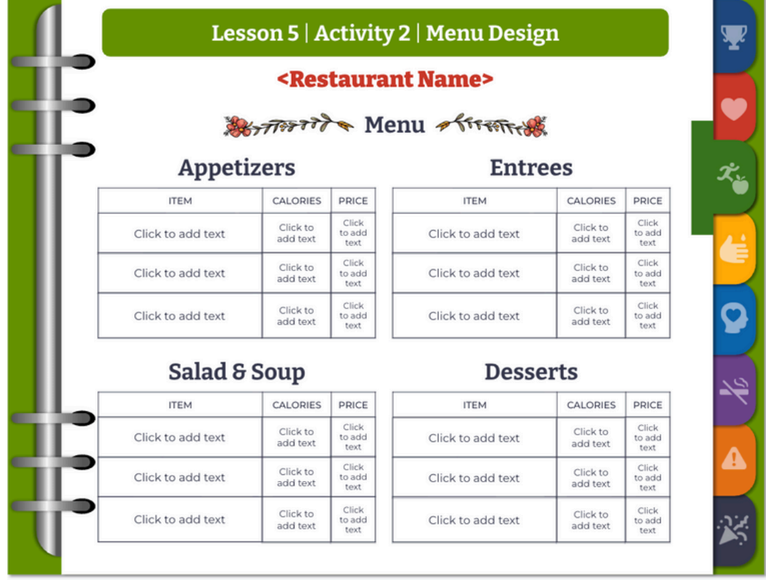
Fourth Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1 & 2	Fire Prevention	Understand and explain the key fire prevention messages. Identify and demonstrate safe behaviors that prevent injury and promote personal health.	1.5.1: Describe the relationship between healthy behaviors and personal health. 7.5.2: Demonstrate behaviors that avoid or reduce health risks.
3	You to the Rescue	Demonstrate safety and first aid knowledge to prevent and treat injuries. Identify and demonstrate strategies for preventing and responding to injuries. Develop a home-safety and emergency response plan such as a fire safety plan.	5.5.1 Identify health-related situations that might require a thoughtful decision.
4 & 5	Healthy Me	Understand strategies for maintaining personal hygiene and health habits. Identify decision-making skills that promote individual, family, and community health.	1.5.1 Describe the relationship between healthy behaviors and personal health. 2.5.4 Describe how the school and

Grade Five



OVERVIEW: This fifth grade curriculum equips students with the knowledge and skills to make informed health decisions, emphasizing nutrition, physical activity, and the management of common illnesses. Students explore the effects of substances, understand reproductive health and puberty, and develop digital safety and cyberbullying awareness. The curriculum also fosters goal setting, critical thinking, and responsible decision-making to promote overall physical, emotional, and social well-being.

Lessons:

Lesson 1 : Health Options
Lesson 2: Dealing with Illness
Lesson 3: Nutrients Get Us Going
Lesson 4: The Whole Truth about Foods
Lesson 5: Take Out the Sugar and Caffeine
Lesson 6: Knowing What You Eat
Lesson 7: Disease and Allergy Awareness
Lesson 8: Goal Setting for a Lifetime of Health
Lessons 9 & 10: Substance Misuse
Lesson 11: Online Safety
Lesson 12: Decision Making
Lesson 13: Growth and Development

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Fifth Grade Health Scope and Sequence

	Lesson	Objectives	National Health Standards
1	Health Options	Explain the importance of health information and how to seek assistance in making decisions about health. Describe how health care decision making is influenced by external factors such as cost and access. Identify how to distinguish between myth and fact when accessing information about health.	2.5.2 Identify the influence of culture on health practices and behaviors. 4.5.4 Demonstrate how to ask for assistance to enhance personal health.
2	Dealing with Illness	Explain how to manage common minor illnesses such as colds and skin infections. Distinguish between communicable and noncommunicable illnesses. Explain actions to take when illness occurs, including asthma, diabetes, and epilepsy.	1.5.5 Describe when it is important to seek health care.

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 h.**

AGENDA REPORTING FORM

Agenda Topic: Grade 6 Science – New Course Curriculum – Second Reading.

Summary of Issue: Grade 6 Science – New Course Curriculum – Second Reading.

Background: _____

_____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the Grade 6 Science – New Course Curriculum – as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Unit Overview	
Unit Title:	Light and Matter (OpenSciEd Unit 6.1)
Author(s):	Lindsay Davenport
Grade Level/Course:	Grade 6/Science
Length/Dates:	7 weeks (approximate timeline is September - Mid-October)
Unit Summary: 2-4 sentences describing the main ideas, content and skills of the unit.	This unit on light and matter begins with a perplexing phenomenon of one-way mirrors and how this material can act as both a mirror and a window at the same time. Through various investigations, students explain how light on either side of a material changes the light input entering the eyes, which affects what we see. By the end of the unit, students apply these science ideas to explain why window glass can act like a one-way mirror in certain light conditions.

Performance Expectations *(This unit builds toward these performance expectations)*
MS-PS4-2: Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials. MS-LS1-8: Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

SEP Implications (Science and Engineering Practices)	DCI Implications (Disciplinary Core Ideas)	CCC Implications (Cross Cutting Concepts)
Asking Questions and Defining Problems: This unit **intentionally develops** this practice. Students ask "what happens if" questions to guide initial investigations with the box models in Lesson 2. They co-construct an experimental, testable question to guide a controlled investigation in Lesson 3. They ask "how" and "why" questions to motivate investigations and to explain the phenomenon (Lessons 4-7). Three Asking Questions Tools are provided to scaffold asking different kinds of questions.	**PS4.B. When light shines on an object, it is reflected, ~~absorbed,~~ or transmitted through the object, depending on the object's material ~~and the frequency (color) of the light.~~** Students investigate using the box model, readings, videos, and data collected with light sensors to develop a robust model and explanation for how light interacts with an object's material. This unit does not address absorption of light, which is taken up in the *Cup Design Unit*. Should you teach *Cup*	**Systems and Systems Models:** This unit **intentionally develops** this crosscutting concept. In this unit, students analyze the phenomenon to consider the components, interactions, and processes of the system, and how changes to light and changes to the material affect what is seen. Students zoom into different parts of the whole system to

- *Open and Closed Questions (Asking Questions Tool)*: Use this tool to support students in revising close-ended questions into open-ended ones. Avoid using it when students first offer questions for the DQB. Rather, use it later in a unit to transform close-ended questions into open-ended ones to investigate together.
- *Testable Questions (Asking Questions Tool)*: Use this tool to support students in asking testable questions that include enough specific information that one could gather evidence (e.g., measurements, observations) to answer the question. Note that this tool includes testable questions that are not specifically experimental ones, but ones that can be answered by gathering empirical evidence.
- *Experimental Questions (Asking Questions Tool)* Use this tool to support students in asking experimental questions in which they will need to manipulate a variable in the system to observe its relationship to other variables.

Developing and Using Models: This unit **intentionally develops** this practice. In the first lesson, students discuss how to use physical models to test ideas about a phenomenon (i.e., the box model) and how to use diagrammatic models to represent and explain the phenomenon. They contrast the real-world system they are trying to understand (i.e., two rooms in the video) with their box models to consider limitations of physical models. In subsequent lessons, students discuss representation choices for diagrammatic models, such as using symbols and colors, and what these representations communicate about the phenomenon. New elements of modeling that emerge in 6-8th grades that are developed in this unit include modeling parts of the system at unobservable scales, including unobservable mechanisms that explain observable phenomena (e.g., light reflecting off microscopic, half-silvered, one-way mirror film) in Lesson 4, and modifying a model to match if a variable is changed (e.g., changing the light conditions or swapping the one-way mirror for glass) (Lesson 8).

Constructing Explanations and Designing Solutions. This unit **intentionally develops** constructing written explanations. In Lesson 7 students develop a written explanation for the phenomenon. First, they collaboratively write an explanation to one of their questions, with the teacher modeling how to write an explanation supported by a how and why account and evidence. Then students independently write an

Design Unit next, Lesson 8 in this unit offers a bridge in the form of a related phenomenon. The phenomena in this unit can be explained using a ray model for light, thus a wave model and different frequencies of light are not developed until 8th grade in the OpenSciEd Scope and Sequence. This is a notable omission given the overarching Performance Expectation for the unit. Until students develop a deep understanding of waves, including frequency and amplitude, they are at a disadvantage for developing a wave model for light. Students will engage deeply with wave models in the *Sound Unit* unit. Thus, expanding the wave model from sound to light in the *Space Unit* makes sense. The *Space Unit* is also an ideal placement for these DCI elements as students to develop a wave model of light which has more explanatory power in the study of space-related phenomena.

PS4.B. The path that light travels can be traced as straight lines, except at surfaces between different transparent materials (e.g., air and water, air and glass) where the light path bends. This unit engages students using the idea that light travels in straight lines to model the one-way mirror phenomenon. There are Building Prerequisite Understandings offered in Lesson 2 to support students further with this concept. Students develop an understanding of refraction of light in Lesson 6 as they notice the bending of light through the lens of the eye to focus light on the retina. Students model how light bends at the surface of the lenses. Extension Opportunities are provided to enhance your students' experiences with refraction at surfaces between air, water, and glass.

LS1.D. Each sense receptor responds to different inputs (electromagnetic, ~~mechanical, chemical~~), transmitting them as signals that travel along nerve ~~cells~~ to the brain. The signals are then processed in the brain~~, resulting in immediate behaviors or memories~~. In lesson 6 students develop an understanding of how eyes sense light inputs and transmit them as signals to the brain. Due to the different amounts of light entering the eye, some signals register as stronger or weaker ones. The unit does not address nerve cells because cells will be investigated later in the 6th grade sequence. Instead, students learn about the "optic nerve" connecting eyes

investigate subsystems (e.g., the one-way mirror material; the eye and brain system). By the conclusion of the unit, students will have a better understanding of what constitutes a *system* and will have iteratively developed a *systems model* that describes how light interacts with objects and how reflected light is an input into the eye.

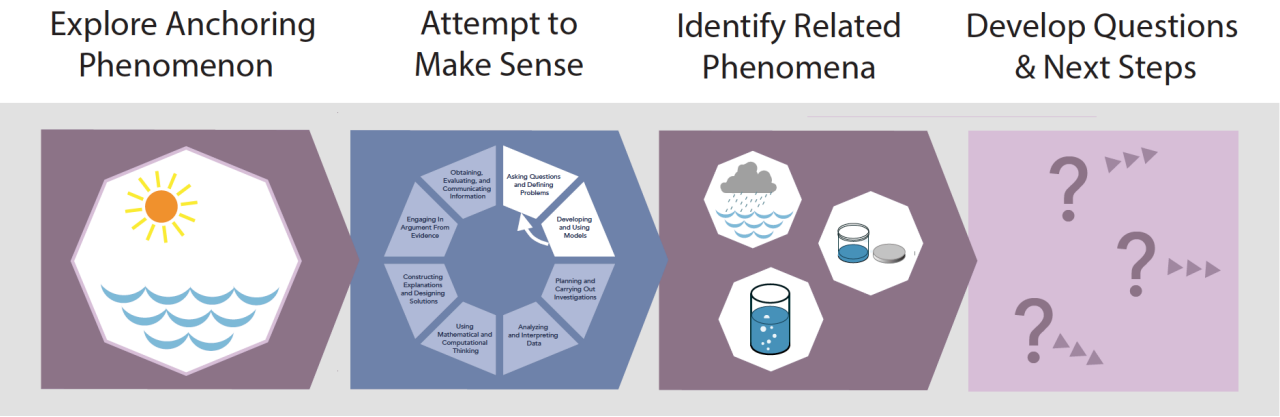
Structure and Function: This unit **intentionally develops** this crosscutting concept. Students consider how the shape and composition of key components in the system (e.g., one-way mirror material, eye lens) help determine the function of those components. Students investigate the microscale composition (structure) of the one-way mirror, and figure out that the one-way mirror is designed with half-silvering, which affects the amount of light transmitted and reflected. Students explore the shapes and components of the human eye to understand how light inputs are processed into what we see. Students learn that the lens of the eye, because of its structure (shape and composition), refracts light to a point on the retina, where light signals are changed into electrical signals that are sent to the brain along the optic nerve.

This crosscutting concept is also **key to the sensemaking** in this unit.

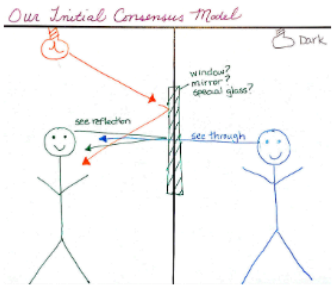
- Cause and Effect

explanation for a second question about the phenomena, receive feedback from the teacher and peers, and revise their explanations.	to the brain. Students will not figure out how the brain responds in terms of reflex or memories.	

Phenomenon



Unit Question: Why do we sometimes see different things when looking at the same object?

Driving Questions	Lesson Level Phenomena	Activity	Learning Targets
Learning Set 1 (Lessons 1-8):			
LESSON 1 4 days **How can something act like a mirror and a window at the same time?** Anchoring Phenomenon	 *A piece of material looks like a mirror from one side and a window from the other side.*	We watch a puzzling video of a music student who can see his reflection in what seems to be a mirror. The student doesn't see the teacher on the other side of the mirror, but the teacher can see through it like a window. We wonder how something can act like a mirror and window at the same time. We investigate the system using a box model that represents it. We develop an Initial Class Consensus Model, brainstorm related phenomena, and develop a Driving Question Board and an Ideas for Investigation chart. We figure out these things: • Some materials can be reflective and see-through at the same time. • Whether the material is reflective or see-through may be related to where there is a light. 	**1.A** Develop a model to identify the important parts of the system and how those parts interact that could cause an object to look different in different light conditions. **1.B** Ask questions that arise from observations of a phenomenon in which an object appears different depending on the light conditions within the defined system.

LESSON 2

3 days

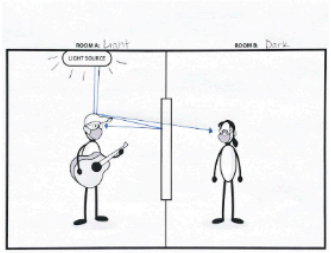
What happens if we change the light?

Investigation

The one-way mirror phenomenon happens when there is a difference in light between the two sides of the material.

In this lesson, we observe the one-way mirror in and out of the box model. We move the flashlight to Room B, make both rooms light, and make both rooms dark. We figure out these things:

- When we change the location of light in the box system, the phenomenon reverses.
- Reflection happens on the side that is lit, while the side that is dark is see-through.
- The one-way mirror phenomenon is strongest when there is a difference in light between the rooms.
- Light travels in straight lines.
- For us to see an object, light must leave a light source, bounce off the object, and travel in a direct path to enter our eyes.



2.A Ask questions that can be investigated in the classroom and frame a hypothesis about what we will see from both sides of the box model if we change the amount of light on either side (structure).

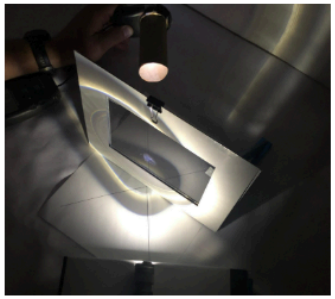
2.B Modify a model based on evidence to match changes in what we see when we change the light in the box model (structure).

LESSON 3

3 days

What happens when light shines on the one-way mirror?

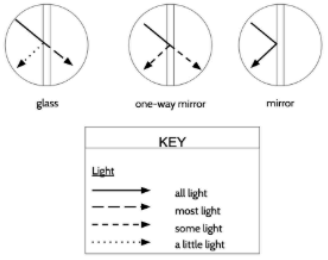
Investigation



Different materials reflect and transmit different amounts of light, as measured quantitatively by a light meter.

We know that the one-way mirror acts like a mirror in a brightly lit room and acts like a window in a dark room. To figure out why it behaves this way, we compare what happens when light shines on the one-way mirror, a pane of glass, and a regular mirror. We record initial observations and then use a light meter to measure the amount of light transmitted through and reflected off each of those materials. We use a tool to develop an experimental question and then plan the investigation. We document our observations and analyze data to figure out what happens when light shines on the one-way mirror. We figure out these things:

- Light travels in straight lines. (reinforcing 4th grade)
- When light shines on an object, it is reflected (bounces off), transmitted (passes through), or some combination of these, depending on the object's material.



3.A Ask a testable question to determine how an object's material (structure; independent variable) influences the amount of light transmitted and reflected (function; dependent variable).

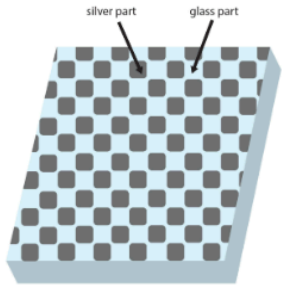
3.B Use evidence to modify a model to explain how an object's material (structure) influences the path of light as it transmits through or reflects off the material (function).

LESSON 4

1 day

How do similar amounts of light transmit through and reflect off the one-way mirror?

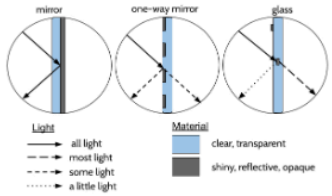
Investigation



A one-way mirror has a thin silver layer compared to a regular mirror that is fully silvered and glass that is not silvered.

We wonder how similar amounts of light transmit through and reflect off the one-way mirror. We think it has something to do with how the one-way mirror is made. We read more about regular mirrors and one-way mirrors and find out that regular mirrors have a thick layer of silver on the glass, and one-way mirrors have a thin layer of silver embedded in a plastic film on the glass. We modify a model to explain what happens when light shines on the different structures in each material. We figure out these things:

- A material can have different structures, even at a microscale, that cause different amounts of light to transmit through or reflect off of it.



4.A Develop a model to describe the unobservable mechanisms that affect how a material's microscale structures change how light reflects off and transmits through the material (function).

LESSON 5

1 day

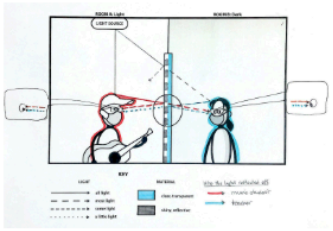
How do light and the one-way mirror interact to cause the one-way mirror phenomenon?

Putting Pieces Together, Problematizing

The one-way mirror acts as a mirror on the lit side and as a window on the dark side.

In this lesson, we revisit the anchoring phenomenon and model interactions between light, the people, and the one-way mirror to explain why the music student and the teacher all see the music student. We realize that a little light reflects off the teacher and enters the student's eyes, which makes us wonder why the student doesn't see the teacher. We figure out these things:

- When light reflects off the music student and travels to the one-way mirror, about half of the light reflects off the silver structures back to the student's eyes and the other half transmits through the transparent parts to the teacher's eyes.
- The light that transmits through the one-way mirror reflects off the teacher and travels to the one-way mirror. About half of that light reflects off the silver structures back to the teacher's eyes and the other



5.A Revise a model to explain the observable one-way mirror phenomenon caused by unobservable interactions between light, the people, and the one-way mirror, which reflects and transmits about the same amount of light.

LESSON 6

2 days

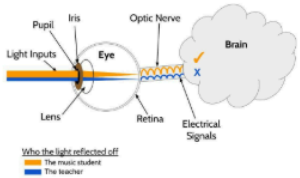
Why does the music student not see the teacher?

Investigation

What we see is determined by the interactions between the light that enters the eye, the structures that make up the eye, and the brain, which processes the signals it receives from the eye through the optic nerve.

In this lesson, we know that light has reflected off the teacher and enters the student's eyes. We wonder why the student can't see her. To figure this out, we obtain more information about what happens when light enters the eye. We model how light inputs transform into signals that the brain processes to tell us what we see. We think about experiences from our everyday lives to help us explain why we only see some inputs of light better than other inputs. We figure out:

- Light changes direction (refracts) when it travels between different transparent materials.
- When a light input is detected by sense receptors in our eye, it is turned into a signal that travels along the optic nerve to the brain, which processes it into what we see.
- When there are multiple inputs, the brain responds to the strongest signal.



6.A Ask questions to model the path of light as it travels through the lens of the eye, and to explain how the shape and composition of the lens causes the path of light to change directions (refract) before reaching the retina at the back of the eye.

6.B Develop a model that describes how the eye responds to (interacts with) different inputs of light and transforms those inputs to signals that travel along the optic nerve to the brain, which processes the signals into what we "see."

LESSON 7

1 day

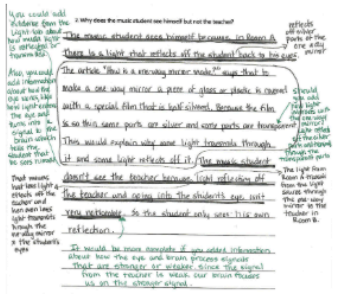
Why do the music student and the teacher see the music student but the music student can't see the teacher?

Putting Pieces Together

The music student can see his reflection in the mirror on the lit side but cannot see the teacher. The teacher on the dark side can see the music student through the glass.

We review the class models from Lessons 5 and 6, the class science ideas list, and our individual Progress Trackers. We develop a written explanation to answer the question: Why does the teacher see the music student? We individually draft an explanation to answer the question: Why does the music student see himself but not the teacher? We self-assess our explanations and give and receive peer feedback on them. We then revise a final explanation. We figure out:

- The music student sees himself because light reflects off the music student to the one-way mirror and reflects back to his eyes. This light input is the strongest signal that is processed by his brain.
- The teacher sees the music student because light reflects off the music student to the one-way mirror and transmits through the one-way mirror to her eyes. This light input is the strongest signal that is processed by her brain.
- The music student can't see the teacher and the teacher can't see her reflection because the light inputs from those objects are weaker and the brain doesn't respond to them.



7.A Construct and revise an explanation using a model to explain why an object appears different (effect) depending on the interaction between light and an object's material and how the brain processes signals (causes).

Assessment: Lesson 7 Written Assessment Final explanation

LESSON 8

3 days

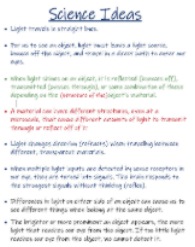
Why do we sometimes see different things when looking at the same object?

Investigation, Putting Pieces Together

Materials like glass can act like one-way mirrors when there is a differential in light on

We investigate the best light conditions for the one-way mirror phenomenon to occur and decide the effect is greatest when there is a large difference in light on both sides of the material. We use this idea to investigate related phenomena. We conclude that other materials, like glass, can act like one-way mirrors in situations in which there is a similar light differential on either side of the material. We use our model and science ideas to demonstrate what we have learned on an assessment. We revisit the DQB to document the questions we have answered in the unit and to reflect on our learning. We figure out these ideas:

- Differences in light on either side of an object or



8.A Use a model to describe how differences in light on both sides of a one-way mirror strengthens or weakens the one-way mirror phenomenon due to changing the components and interactions within and between systems.

8.B Apply science ideas and evidence from classroom investigations to explain a common, real-world phenomena in which a material designed for light transmission and to look transparent to the eye and brain functions as a one-way mirror due to the relationship the material has to other parts in the system.

Final Assessment: Lesson 8 Model Assessment Portraits Through Glass

Additional Resources:

- Driving Question Board
- Question Formulation Technique (QFT)
- KQL
- Talk Activities

September, 2025

- Summary Table
- Final Scientific Modeling
- Final Scientific Modeling
- CCC Discussion Cards
- 321 Strategy active viewing
- 60 Formative Assessment Ideas
- CER

Unit Overview	
Unit Title:	Thermal Energy (OpenSciEd Unit 6.2)
Author(s):	Lindsay Davenport
Grade Level/Course:	Grade 6/Science
Length/Dates:	12 weeks (approximate timeline is Mid-October- Mid-December)
Unit Summary: 2-4 sentences describing the main ideas, content and skills of the unit.	The unit begins with students comparing how well a store-bought insulated cup and a regular plastic cup keep drinks cold. Observing that the regular cup warms faster, they investigate differences in cup design, starting with the lid, and model evaporation. Discovering that temperature still changes in a closed system, students explore energy transfer from light absorption and warmer surrounding air. The unit culminates with students designing their own drink container that meets specific performance criteria.

Performance Expectations *(This unit builds toward these performance expectations)*

MS-PS1-4:
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.

MS-PS3-3:
Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.

MS-PS3-4:
Plan an investigation to determine the relationships among the energy transferred, the type of matter, the mass and the change in the average kinetic energy of the particles as measured by the temperature of the sample.

MS-PS3-5:
Construct, use, and present arguments to support the claim that when the motion energy of an object changes, energy is transferred to or from the object.

MS-PS4-2:
Develop and use a model to describe that waves are reflected, absorbed, or transmitted through various materials.

MS-ETS1-4:
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.

SEP Implications (Science and Engineering Practices)	DCI Implications (Disciplinary Core Ideas)	CCC Implications (Cross Cutting Concepts)
Developing and Using Models: This unit **intentionally develops** this practice by providing explicit instruction and scaffolds to support students in modeling particle scale mechanisms that result in observable heating and cooling phenomena. These include modeling templates, physical manipulatives (e.g., chips, marbles), and computer simulations. Students develop models for explaining how unobservable mechanisms result in observable phenomena which is a new context compared to the micro scale that was modeled in the *One-way Mirror Unit*. Because of particle-scale mechanisms, simulations are necessary to support students in modeling relationships among variables. Students also develop models to plan for the cup design challenge, and to explain how their cup designs work to minimize energy transfer. **Planning and Carrying Out Investigation.** This unit **intentionally develops** the practice. Students are given the opportunity to explore initial questions they have about cups through uncontrolled investigation, and then through a series of highly controlled investigations, to come to the conclusion that matter is not moving between systems, but rather energy is transferring between systems. Students articulate independent, dependent, and control variables; they co-construct collaborative investigation procedures to follow; reflect on ways to minimize error in their procedures; and fine tune procedures. In the design challenge, they define procedures to conduct fair tests under a range of conditions, and revisit those procedures to fine tune them before they conduct tests on their optimized designs. Students are assessed on this practice in a mid-point assessment.	**PS1.A. Structures and Properties of Matter** • **Gases and liquids are made of molecules or inert atoms that are moving about relative to each other.** • **In a liquid, the molecules are constantly in contact with others; in a gas, they are widely spaced except when they happen to collide. In a solid, atoms are closely spaced and may vibrate in position but do not change relative locations.** • **The changes of state that occur with variations in temperature ~~or pressure~~ can be described and predicted using these models of matter.** Students develop particle models to explain what happens to the water inside the cup to warm up, and how particles might escape the system. They model how particles evaporate or condense depending on the energy of the particles (which is revisited in the *Storms Unit*). In later lessons, students develop particle models to show how gases, liquids, and solids at high temperature move in comparison to low temperature. Students develop and modify particle models that include the spacing and movement of particles in three states of matter in the context of the cup system: (1) the air outside it, (2) the liquid inside it, and (3) the metal or plastic material of the cup itself. Conversations about modeling representations, such as particle spacing and movement, also occur throughout. **PS3.A. Definitions of Energy** • **The term "heat" as used in everyday language refers both to thermal energy (the motion of atoms or molecules within a substance) and the transfer of that thermal energy from one object to another. In science, heat is used only for this second meaning; it refers to the energy transferred due to the temperature difference between two objects.** • **Temperature is not a measure of energy; the relationship between the temperature and the total energy of a system depends on the types, states, and amounts of matter present.** • **Temperature is a measure of the average kinetic energy of particles of matter. The relationship between the temperature and the total energy of a system depends on the types, states, and amounts of matter present.** Students develop an understanding that kinetic energy is used to describe the motion of particles, which they define explicitly. They deepen their understanding of temperature as the average kinetic energy of particles and they compare temperature to total energy of the system. They also define thermal energy as a term describing the motion of particles or kinetic energy of particles within a substance. Heat is a term used frequently throughout the unit often conflating it with thermal energy in several lessons. This is intentional in order to work from	**Patterns:** This unit **intentionally develops** this crosscutting concept.. Students engage in all elements of this crosscutting concept across the unit. Students use patterns as a helpful lens during data analysis as students interpret temperature data from various investigations. Students use macroscopic patterns to figure out the nature of interactions at the microscopic scale and to identify case and effect relationships. **System and System Models:** This unit **intentionally develops** this crosscutting concept. While students began to work with models representing systems in the *One-Way Mirror Unit*, in this unit they learn to construct particle-level models that represent energy flow in a system. Students initially set up these cup models as a system model, and begin to identify important components and interactions that should be tested to explain why the water warms up. The cup system model targets, specifically, tracing matter and energy inputs and outputs from the system to explain why water inside the system warms up.

Analyzing and Interpreting Data: This unit **intentionally develops** this practice. Students work with data throughout the unit as they run investigations and use data as evidence for their claims about phenomena to design their own devices. Students calculate means from pooled data across the class. They consider limitations of data analysis when the teacher explains the accuracy of the digital scale (+/- 0.1 g). Students discuss how averaging multiple measurements from many trials can help counterbalance this source of error. They also use their data to modify their data collection methods to work toward more precise data collection.

Constructing Explanations and Designing Solutions: This unit **intentionally develops** this practice. Students use scientific ideas to construct and test an object that is designed to slow energy transfer. Students articulate precise criteria and constraints for the design challenge, and identify how to test the devices against those criteria and constraints. They undertake this design project with multiple design cycles in which students tweak design features to optimize their device's performance. Students explain how features of their device worked and why and which features did not work and why, connecting these back to the criteria and constraints agreed upon for the design challenge.

The following practices are also **key to the sensemaking** in the unit:

- Asking Questions and Defining Problems
- Engaging in Argument from Evidence

students' initial ideas. Heat is not explicitly defined until Lesson 14, after students have developed ideas about energy transfer between objects/substances.

PS3.B. Conservation of Energy and Energy Transfer

- **When the kinetic energy of an object changes, there is inevitably some other change in energy at the same time.**
- **The amount of energy transfer needed to change the temperature of a matter sample by a given amount depends on the nature of the matter, the size of the sample, and the environment.**
- **Energy is spontaneously transferred out of hotter regions or objects and into colder ones.**

In the second lesson set, students collect evidence to support the idea that energy transfers from warmer substances and objects to cooler ones (and not vice versa). The Water Bath Lab in Lesson 9 targets the idea that as energy decreases in one system, the energy increases in another system. This idea is further developed on the particle scale in Lesson 13. Students further investigate the amount of matter and nature of the matter in the sample in Lesson 13, too. This culminates in a final test of energy transfer in Lesson 14 followed by students developing an argument to support their conclusions.

PS4.B. When light shines on an object, it is reflected, absorbed, or transmitted through the object, depending on the object's material ~~and the frequency (color) of the light~~. In Lesson 8 students investigate and collect evidence that light can be absorbed by and transfer energy to an object. This DCI continues to be developed in the *Storms Unit*.

ETS1.A. The more precisely a design task's criteria and constraints can be defined, the more likely it is that the designed solution will be successful. Specification of constraints includes consideration of scientific principles and other relevant knowledge that is likely to limit possible solutions. Students make sense of a set of criteria and constraints provided to them in the Cold Cup Challenge. They can add to or refine this list. Some of the criteria and constraints are based on scientific principles, while others focus on consumer needs that may limit designs (such as environmental friendliness of materials and the diameter of the cup to fit in a typical cup holder).

ETS1.B. A solution needs to be tested and then modified on the basis of the test results in order to improve it. There are systematic processes for evaluating solutions with respect to how well they meet the criteria and constraints of a problem. At the outset of the design challenge, students talk through the various tests they will conduct on their designs and whether the tests will provide the necessary information to decide if the design meets the criteria and constraints (Lesson 16). In Lesson 17, students reflect on the design process and the criteria and constraints before engaging in optimizing their designs.

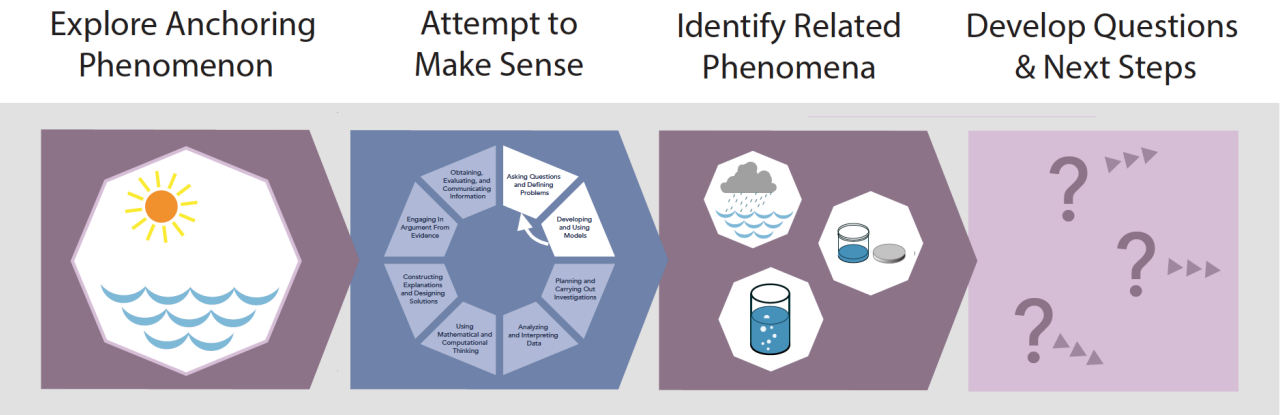
Energy and Matter: This unit **intentionally develops** this crosscutting concept. In the first lesson set students focus on tracing matter through physical changes, drawing on the idea that matter is conserved. The remainder of the unit focuses on tracing energy, accounting for energy transferring within and between systems.

Structure and Function: This unit **intentionally develops** this crosscutting concept. Students began their work with structure and function in the *One-Way Mirror Unit.* In this unit, they build on ideas about how properties of materials affect function by considering interactions at the particle level to inform their designs. Structure and function becomes a focal crosscutting concept when students enter the design portion of the unit in lesson set 3. They are cued to think about design features, or structures, and how they function to minimize energy transfer.

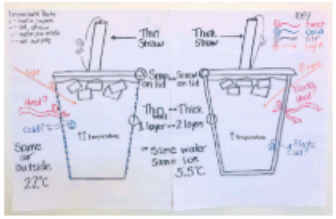
The following crosscutting concepts are also **key to the sensemaking** in this unit.

- Cause and Effect
- Scale, Proportion, & Quantity

Phenomenon



Unit Question: How can containers keep stuff from warming up or cooling down?

Driving Questions	Lesson Level Phenomena	Activity	Learning Targets
Learning Set 1 (Lessons 1-6):			
LESSON 1 3 days **Why does the temperature of the liquid in some cup systems change more than in others?** Anchoring Phenomenon	 *Makers of a fancy plastic cup claim it keeps a drink cold for longer than a regular plastic cup.*	We observe an iced drink in a regular cup warming up more quickly compared with an iced drink in a fancy cup. We develop systems models to explain what is happening in the two cups that one can better maintain the temperature of the drink. We brainstorm related phenomena and ask questions about design features that influence how well an object can keep something hot or cold. We figure out: • The cup system includes the different parts of the cup and the water and air inside the cup. All of these parts work together (interact) to form the system. • Some systems have structural features that help maintain the temperature of a substance inside the system, keeping the substance hot or cold longer compared with other systems. • Heat can enter the cup system and/or cold can leave the cup system, and maybe gases can escape the system too.		**1.A** Develop an initial model to describe a phenomenon in which a substance changes temperature and identify structural parts of the system that slow down or speed up the temperature change (function). **1.B** Ask questions that arise from careful observation and can be investigated in the classroom to test how parts of the cup systems contribute to warming up or maintaining the temperature of the substance inside.
			2.A Plan and carry out an investigation to gather evidence to answer scientific questions

LESSON 2

2 days

What cup features seem most important for keeping a drink cold?

Investigation

There are features of a cup that are important for keeping a drink cold.

We plan and carry out an investigation to figure out 2 things. First, what cup features are important for keeping a drink cold? Second, how would changing the cup features cause the drink to warm up faster? We collect, organize, and publicly analyze data from our investigation to identify patterns to determine which cup features help maintain a drink's temperature. We figure out:

- Some systems have structural features that are designed to help maintain the temperature of a substance inside the system.
- The cup features that seem to play a significant role in keeping a drink cold are a lid, double walls, and maybe the type of cup material.

about how parts of the cup system relate to the temperature change of the liquid inside.

2.B Analyze and interpret data to find patterns indicating which parts of the cup system (features) influence the temperature change of the substance inside the system.

LESSON 3

2 days

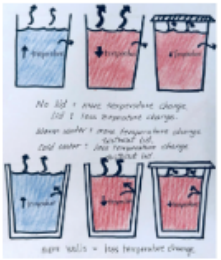
How are the cup features that keep things cold the same or different for keeping things hot?

Investigation

Students test whether cups that can keep liquids cold can also keep liquids hot.

We look at the order of cups based on their ability to keep liquids cold. We investigate whether these same features are able to keep liquids hot. Based on our findings, we revise our explanation from Lesson 1 to explain how particular cup features help to keep liquids hot and/or cold. We ask additional questions about the cup features now that we know more. We then design an experiment to investigate our questions and ideas about how the lid works. We figure out:

- Cups that can keep liquids cold are also able to keep liquids hot.
- Cups with lids are able to keep liquids hot and cold better than cups without lids.
- Cups with more walls or layers will be able to keep liquids hot and cold better than cups without lids.



3.A Develop and use a model to explain how the best-performing and worst-performing cup systems affect the temperature change of a substance inside a system.

3.B. Plan an investigation to investigate how the lid (a structural feature of the cup system) works to slow the temperature change (function) of a substance inside the system.

LESSON 4

3 days

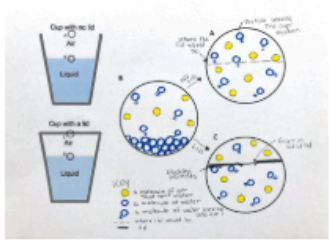
How does a lid affect what happens to the liquid in the cup?

Investigation

Hot liquid in a cup with a lid changes temperature less than in a cup without a lid. The amount of matter lost to the surroundings due to evaporation is less too. A completely closed system loses no matter to the surroundings, even though the liquid in it still changes temperature.

We plan and carry out investigations to determine the effect of a lid on temperature change and mass change of a hot liquid in a cup. We calculate the mean for two cup systems to compare the temperature drop and mass change in each condition. We develop and use a particulate model of liquids and gases to explain the mass loss in an open system. We figure out:

- The lid helps to maintain the temperature of a hot liquid inside the cup and it slows down matter loss from the system.
- Liquids and gases are made of particles. Particles in gas have a lot of space between them but those in liquids do not.
- The smallest particle of water is a molecule. Molecules of water in liquid go into gas over time (evaporation).
- An open system has space for matter to enter or exit. A closed system is one in which no matter can enter or exit.
- The hot liquid cools down even when we prevent most matter from leaving the cup system by using a lid.



4.A Plan and carry out investigations to determine the effect of a lid on temperature change and mass change in systems that are more open and less open.

4.B Analyze and interpret data by applying concepts of probability to calculate the mathematical mean to compare the temperature change and mass change across conditions (patterns) and use these measures to make claims about the effect of the lid.

4.C Develop a model to describe why mass is lost in some conditions but not others (open systems versus less-open systems), using a particle model of matter for liquids and gases.

LESSON 5

1 day

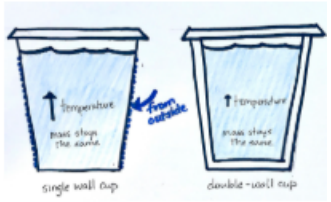
Where does the water on the outside of the cold cup system come from?

Investigation

Observe and measure closed cup systems containing cold liquids before and after water droplets form on the outside surface of the cup system.

We construct an investigation to support or refute the claim that the formation of water droplets (condensation) on the outside of a cup of cold water comes from water leaking through the cup walls. We measure the mass of a cup of cold water before and after condensation forms on the outside. We also observe condensation on the outside of a cup of cold water that has been dyed using food coloring. We use our observations and data to construct an argument to refute the claim that water droplets on the outside of the cup come from inside the cup system.

- The water droplets that form on the outside of a cup of cold water come from the air outside the cup, not from the inside of the cup.
- Water droplets often condense on a cold surface when humid air comes in contact with the surface.
- Liquids do not move through solids.
- Matter does not enter or leave a closed system; therefore, the mass of a closed system does not change.



5.A Collect and analyze different forms of data to identify patterns across our data sources that serve as evidence that condensation that forms on the outside surface of a cold cup system comes from the air outside the system.

5.B Construct an argument to support the claim that water forming on the outside surface of a cold cup system comes from the air outside the system and is not leaving the system through the walls.

LESSON 6

2 days

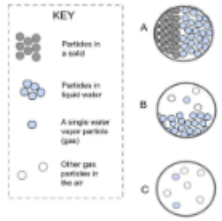
How can we explain the effect of a lid on what happens to the liquid in the cup over time?

Putting Pieces Together

A completely closed system loses no matter to the surroundings, even though the liquid in it changes temperature over time.

We use a model to show why water molecules cannot leave the cup at some points in the cup system but can at other points. We complete an individual assessment that includes making predictions about whether a cup with a new lid design will keep a drink cooler than a cup with an old lid design, developing a plan for collecting data to see if the amount of liquid changed in either cup over time and developing a model to explain why one cup system would lose more mass than another. We figure out these things:

- Liquids, gases, and solids are made of particles of matter.
- Particles in a gas have a lot of space between them, but particles in liquids and solids do not.
- Liquids and gases are made of particles that can move around freely, but solids are made of particles that cannot.



6.A Develop and use a particle model of matter for solids, liquids, and gases to show how structural differences in a cup system allow water molecules to leave the system at some points in the system but not at others.

6.B Plan an investigation and in the design, identify the controls, the tools needed to gather the data, and how much data are needed to support a claim about how much liquid (matter) leaves two different cup systems over 30 days.

Mid-Unit Assessment: Lesson 6 Explaining the Effect of Different Lid Designs

Learning Set 2 (Lessons 7-14):

LESSON 7

1 day

If matter cannot enter or exit a closed system, how does a liquid in the system change temperature?

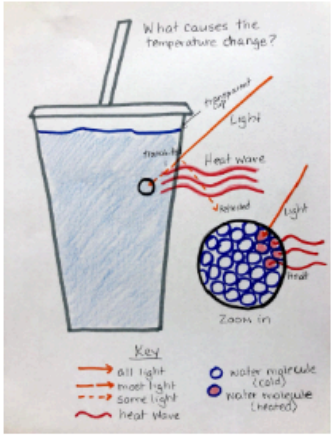
Problematizing

Other possible interactions could cause a temperature change in the liquid inside the closed cup system.

We consider what we know about the components (or structures) of the closed cup system, how they function, and how they interact with one another and with other objects and substances outside of the cup system to determine what else might a temperature change in the liquid inside. We develop models to represent our ideas about interactions between energy (light, heat, or cold) and the closed cup system. We use these models to explain the temperature change, and we determine ways to test our ideas to figure out how energy interacts with the closed cup system. We figure out:

- Since most of the matter does not enter or leave the cup system with a lid, light and heat or cold may interact with the system to cause a temperature change in the liquid inside.

*note: students will likely use "heat waves" as an initial representation for heat, and this is OK at this point in the unit. From lessons 8-14, students develop their understanding of heat, and the way they represent it in their models.



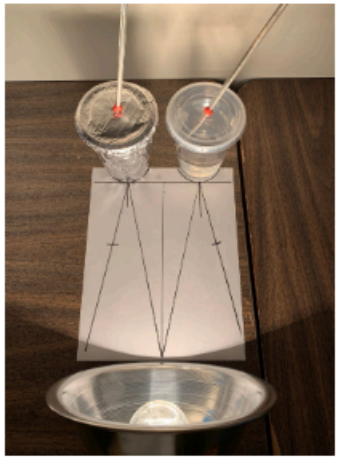
7.A Develop two models to show relationships among the parts of the mostly closed cup system and how light and heat or cold (i.e., mechanisms) cause the liquid inside to warm up or cool down (effect).

LESSON 8

2 days

How does a cup's surface affect how light warms up a liquid inside the cup?

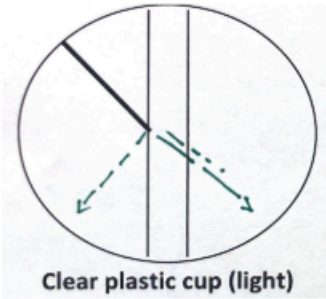
Investigation



Water warms up differently in cups with various surfaces when light shines on the cups, and it warms up in a completely dark condition too.

We carry out an investigation to test the interaction between light and the cup surface in warming up the cold water inside the cups. We shine light on cups with walls of different materials and colors and measure the amount of incoming, reflected, and transmitted light, and we also place some cups in a completely dark condition. We figure out that the water in all the cups warms up, even cups in the dark condition, but it warms up more in the cups in the light conditions. We wonder about additional mechanisms by which the water inside the cups warms up.. We figure out:

- Light can transfer energy into a system.
- When light that shines on a surface is not reflected or transmitted, it is absorbed, which warms the matter it shines on.
- Temperature changes in the water can still occur even if light does not transmit through the cup wall and even if there's no light.



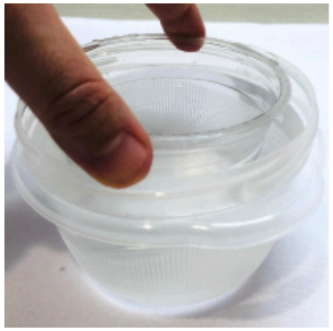
8.A Develop and use models to describe how light transmission through, reflection off, and absorption by cup walls causes changes in the temperature (effect) of water inside the cup.

LESSON 9

1 day

How does the temperature of a liquid on one side of a cup wall affect the temperature of a liquid on the other side of the wall?

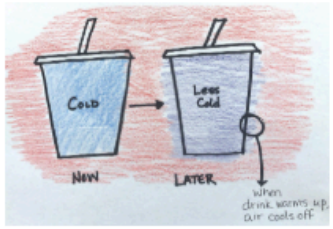
Investigation



The temperature increases and decreases inside a cup system are correlated with temperature decreases and increases outside the cup system.

We brainstorm how to test whether heat or cold is entering or leaving a cup system. We plan and carry out an investigation to place the cup in a water bath and measure the temperature inside and outside the cup to see if heat or cold is moving between the two systems. We figure out that when there is a temperature change inside the cup system, there is also a temperature change outside the system. We conclude that heat or cold moves through the cup wall and that the greater the temperature difference between the cup and water bath systems, the more energy is transferred between the two. We figure out:

- When the temperature of a sample of matter in one system decreases, the temperature of the matter in the neighboring system increases.
- When the temperature difference between two neighboring systems is great, more energy transfers between them.
- Heat or cold can move through the wall of the cup system.



9.A Carry out an investigation to measure temperature inside and outside a cup system to test whether heat or cold moves through the wall of the system.

LESSON 10

2 days

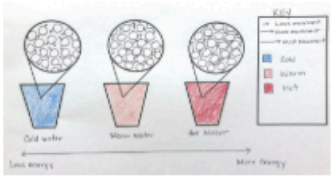
What is the difference between a hot and a cold liquid?

Investigation

Candy breaks into pieces and dissolves more quickly in hot water than cold water. Food coloring moves around and spreads out more in hot water than cold water. When water is shaken vigorously, the water warms up.

We investigate the differences between hot and cold liquids at the particle scale. A video showing candy dissolving in hot, warm, and cold water motivates us to investigate how water behaves differently at varying temperatures by adding food coloring to hot, room-temperature, and cold water. After collecting qualitative evidence that correlates movement in water to temperature, we read about a historical study supporting the idea that movement of water particles and temperature are closely connected. All three sources of information reinforce the ideas that (1) liquids are made of particles and (2) particles move more when a liquid is hotter and less when it is colder. We figure out that:

- The movement of particles is related to the temperature of the water, with particles in colder water moving less than particles in hotter water.



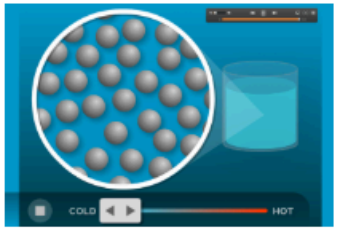
10.A Develop models based on evidence to explain that matter is made of particles that are in motion, and though the individual particles are not visible to the eye, their collective behavior can be observed as more or less movement depending on the matter's temperature.

LESSON 11

1 day

Why do particles move more in hot liquids?

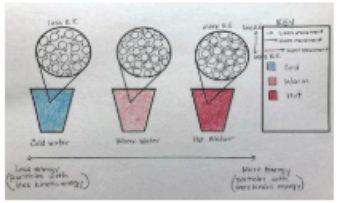
Investigation



A simulation shows that particles move slower when a liquid is cold and faster when a liquid is hot.

We wonder what happened in the *Food Coloring Lab* at the particle scale and how this relates to energy. We make observations from a simulation and obtain evidence that hot liquids have particles that move faster and cold liquids have particles that move slower. We call this energy of movement *kinetic energy*. We spray perfume on one side of the classroom and smell it on the other side, evidence that particles in gas move freely like particles in liquids. We use new ideas about kinetic energy to explain our previous lab observations. We revisit our original iced drink warming up in the regular plastic cup and wonder where the kinetic energy came from. We figure out:

- A particle's speed is related to how much kinetic energy it has.
- The particles in hot liquids and gases have more kinetic energy than the particles in cold liquids and gases.
- Liquids and gases are made of particles that can move around freely.



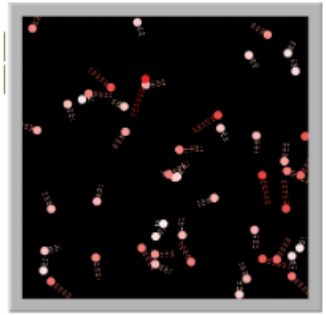
11.A Construct an explanation about why food coloring moves more in hot water than in cold water using the idea that at the particle scale, particles in liquids at warmer temperatures have more kinetic energy than particles in liquids at cooler temperatures.

LESSON 12

2 days

How does the motion of particles compare in a sample of matter at a given temperature?

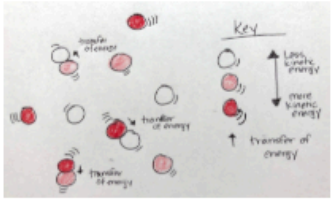
Investigation



When particles collide, they transfer their kinetic energy to each other, and in a sample of matter at the same temperature, the particles have different speeds.

We use a simulation to investigate how individual particles in a sample of gas do not have the same kinetic energy, and how the kinetic energy of each particle is constantly changing as they collide with one another. We argue that temperature is a measure of the average speed of the particles in a sample of matter, and that the total energy of that sample is the sum of the kinetic energy of all the particles in the sample combined. We figure out:

- Not all particles in a sample of matter have the same kinetic energy.
- Kinetic energy is transferred from one particle to another in a particle collision.
- Temperature is a measure of the average kinetic energy of the particles in a sample of matter.
- The total kinetic energy of a sample of matter is the sum of the kinetic energy of all the particles in that sample. If you add more particles, the total kinetic energy increases but the temperature (the average kinetic energy) might stay the same.



12.A Analyze and interpret data to mathematically represent the cause-and-effect relationships between the average kinetic energy of the particles of a gas, the temperature of the gas, and the total kinetic energy of all the particles in the gas.

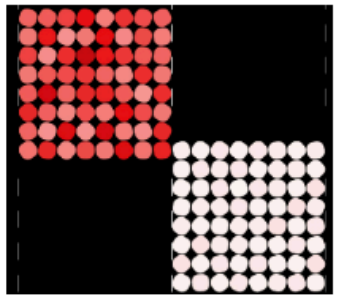
12.B Carry out an investigation to look for patterns in data generated by using an interactive simulation of the particles in a gas (which are too small to be observed) to observe the kinetic energy of individual particles and the transfer of energy when they collide.

LESSON 13

2 days

How could the motion of particles on one side of a solid wall affect the motion of the particles on the other side of that wall?

Investigation



When a fast-moving glass marble hits a slow-moving glass marble moving in the same direction, the fast-moving marble slows down and the slow-moving marble speeds up. When a moving glass marble hits a line of magnet marbles held in place, the glass marbles on the other side of the magnetic marbles start moving.

We use a simulation to analyze particle speeds before and after a collision. We use marbles to investigate the effects of collisions on particle speeds in different situations to simulate interactions between particles in a gas, a liquid, and a solid. We use a simulation to analyze particle interactions in different solids in contact with each other at different temperatures. We figure out these things:

- Particles in a solid vibrate back and forth in place.
- Collisions between particles in a solid, liquid, and/or gas can transfer kinetic energy (KE or motion energy) from one particle to another.
- The more particles in a sample of matter that are in contact with another sample of matter, the greater the amount of particle KE is transferred from the warmer piece of matter to the cooler pieces of matter over time.
- The more particles an object is made of, the more energy must leave or enter the system in order to change the temperature of that object.

13.A Carry out investigations using a particle model of matter (with marble manipulatives and computer simulations) to generate evidence that one way the temperature of matter changes over time is that kinetic energy is transferred in collisions between the particles (matter) within and between solids, liquids, and gases.

LESSON 14

3 days

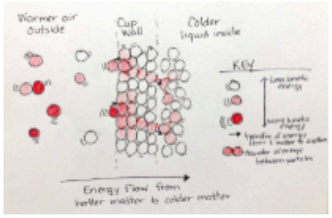
Does our evidence support that cold is leaving the system or that heat is entering the system?

Investigation, Putting Pieces Together

Butter melts when a candle is lit on one side of a strip of aluminum foil.

We sort evidence collected during previous lessons to support or refute claims that temperature changes are due to heat or cold moving into or out of the cup system. We conduct an investigation to collect additional evidence, helping us figure out that heat moves into the cup system, causing a temperature change. We revise our cup system models and apply our new understanding to answer questions from the DQB and explain related phenomena.We figure out:

- Temperatures change when energy moves from warmer to cooler matter.
- Energy is transferred when higher-energy particles come into contact with lower-energy particles.



14.A Develop and use models to track how energy spontaneously transfers out of hotter regions and into colder ones and causes changes in the water's temperature within the cup system.

14.B Construct written arguments supported by empirical evidence and scientific reasoning to support claims describing how energy spontaneously transfers out of hotter regions or objects and into colder ones.

Learning Set 3 (Lessons 15-18):

LESSON 15

3 days

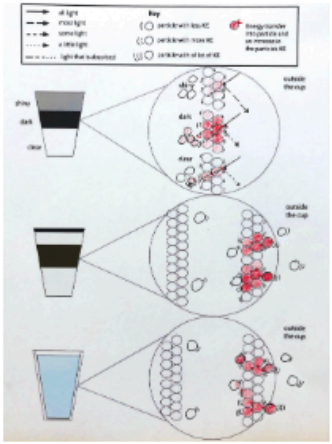
How do certain design features slow down the transfer of energy into a cup?

Investigation

Certain design features, such as double walls, foam, and reflective materials, slow down or minimize the temperature increase of a liquid inside a cup system.

We learn about the *Cold Cup Challenge* and look at examples of effective cup designs. We still need to explain how certain features work (i.e., double walls, porous materials, color). We jigsaw the gaps in our knowledge and conduct a gallery walk to share our findings. We reach consensus about mechanisms for energy transfer, which will help us in the design challenge. We figure out:

- Shiny/ light-colored materials (feature) prevent light from being absorbed. Absorption of light by particles (mechanism) transfers energy to the cup.
- Porous materials with air pockets (feature) slow down the conduction of energy because there are fewer particles to collide across the air pockets. Conduction of energy from particle collisions (mechanism) transfers energy.
- A double-walled cup with a vacuum or air between the walls (feature) slows down the conduction of energy because there are fewer or no particles to collide between the walls. This is a similar mechanism as in porous materials.



15.A Obtain and use information from scientific texts to evaluate the function of certain design features in minimizing energy transfer into a system.

15.B Develop a consensus model for explaining two mechanisms for energy transfer into a system, and design features that minimize energy transfer into a system.

LESSON 16

2 days

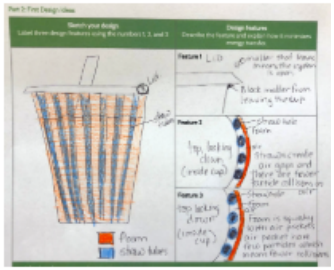
How can we design a cup system to slow energy transfer into the liquid inside it?

Investigation

Certain design features slow energy transfer reflecting light or using air pockets or layers.

We review the Cold Cup Challenge and design our cups, pointing out features we have evidence will slow energy transfer. We build our first cup designs, test them, and evaluate our results compared to the criteria and constraints. We provide feedback to each other to improve our cup designs. We figure out:

- The more clearly a design task is defined, the more likely the solution (cup system) will meet the criteria and constraints.
- A designed cup needs to be tested and then modified on the basis of the test results that will help evaluate the solution to how well it meets the criteria and constraints of a problem.



16. A Design a solution for a cup system with features (structures) to slow energy transfer into the liquid inside the cup (function).

16.B Carry out investigations to collect data to evaluate the performance of cup systems that slow energy transfer given the criteria and constraints of the problem, and to modify design features (structures) based on test results (functions).

LESSON 17

2 days

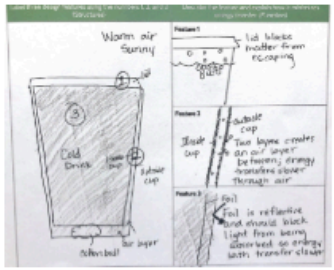
How can we improve our first design to slow energy transfer into the cup system even more?

Investigation

Cup designs that use fewer materials and reduce absorption of light and contact between materials are more effective.

We review our test results and feedback from our first design. We clarify the criteria and constraints and then redesign, build, test, and evaluate a new cup. We make observations from the new data to identify the features of the best performing cups. We figure out:

- Surface materials that reflect more light help cups perform better on the bright light and temperature test.
- Materials used on the cup walls that reduce the amount of contact between layers help cups perform better on the regular light and temperature test.
- The use of fewer materials can still be effective on the two temperature tests, while also reducing costs, diameter, and environmental impact.



17.A Design a solution that is modified based on test results to improve the features (structures) to better slow energy transfer (effect) by reducing the absorption of light or opportunity for particle collisions (function/cause).

17.B Carry out investigations to collect data to evaluate the performance of cup systems that slow energy transfer given the criteria and constraints of the problem, and to propose ways to optimize design features (structures) based on the test results (functions).

LESSON 18

3 days

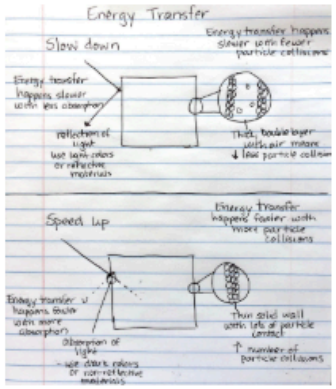
How can containers keep stuff from warming up or cooling down?

Putting Pieces Together

Objects designed to keep things cold or hot share similar design features, like materials that create air insulation and have transparent or reflective surfaces.

We review and interpret test results across our best cup designs. We use evidence to offer suggestions as our class works together to design the Ultimate Cold Cup. We generalize our model to explain patterns to minimize or maximize energy transfer, and use our model to predict how energy transfer could be maximized or minimized in everyday examples. Finally, we revisit the Driving Question Board and discuss all of the questions we can now answer. We figure out:

- The rate of energy transfer between systems speeds up or slows down depending on the number of particle collisions.
- The rate of energy transfer between matter and light speeds up or slows down depending on how much light is absorbed.
- The amount of matter in a substance affects the rate of energy transfer and how much energy is needed to increase the substance's temperature.



18.A Develop a model based on patterns in performance that can be used to predict ways to minimize or maximize energy transfer into or out of a variety of systems.

18.B Evaluate a design solution for a disaster blanket that includes several design features (structure) to minimize energy transfer (function) that could result in body heat loss.

Final Assessment: Lesson 18 Disaster Blanket Design

Additional Resources:

- Driving Question Board
- Question Formulation Technique (QFT)
- KQL
- Talk Activities
- Summary Table
- Final Scientific Modeling
- Final Scientific Modeling
- CCC Discussion Cards
- 321 Strategy active viewing
- 60 Formative Assessment Ideas
- CER

Unit Overview	
Unit Title:	Weather, Climate, & Water Cycling (OpenSciEd Unit 6.3)
Author(s):	Lindsay Davenport
Grade Level/Course:	Grade 6/Science
Length/Dates:	12-14 weeks (approximate timeline is January- Mid-April)
Unit Summary: 2-4 sentences describing the main ideas, content and skills of the unit.	The unit begins with students examining videos of hailstorms occurring in different places and seasons, showing large ice chunks falling on warm days. These observations spark questions about how hail forms, how clouds develop, why some storms produce heavy precipitation, and how water enters the atmosphere. In the second half, students analyze weather reports of a winter storm in the Midwest forecasted to bring snow and ice to the Northeast the next day. This prompts investigations into the causes of large-scale storms and how they travel across regions.

Performance Expectations *(This unit builds toward these performance expectations)*

MS-PS1-4:
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.

MS-ESS2-4:
Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

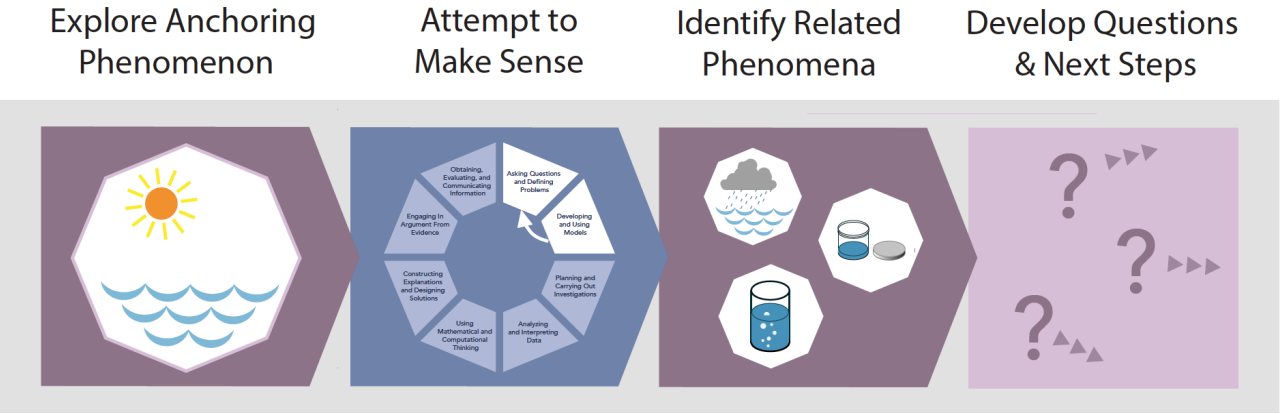
MS-ESS2-5:
Collect data to provide evidence for how the motions and complex interactions of air masses results in changes in weather conditions.

MS-ESS2-6:
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.

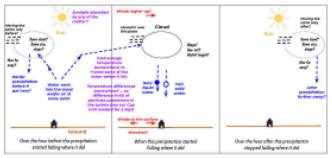
SEP Implications (Science and Engineering Practices)	DCI Implications (Disciplinary Core Ideas)	CCC Implications (Cross Cutting Concepts)
Developing and Using Models: This unit **intentionally develops** this practice. Students focus on a new element of modeling in identifying the limitations of a model in Lessons 10 and 14. They also develop and use models to explain phenomena that build on but are much more complex than, their prior work in the *Cup Design Unit*. In this unit, students develop models to explain multiple energy transfer processes (radiation, conduction, convection) and multiple matter transformation processes (evaporation, condensation, and crystallization). Furthermore, these processes occur across different spatial scales and students have to connect them together to make sense of many weather- and climate-related phenomena. The models used in this unit include particle-level models, models of air parcels in the air above us (over a few miles), models of air masses over hundreds of miles, and models of prevailing systems over hemispheres. **Planning and Carrying Out Investigations:** This unit **intentionally develops** this practice. In the first half of the unit, students conduct investigations in five different lessons that help them develop a model of cause and effect relationships involved in the energy transfer processes (radiation, conduction, convection) and matter transformation processes (evaporation, condensation, and crystallization) that cause weather phenomena. Students also engage in a new element of this practice as they evaluate and revise various aspects of their investigation designs, including data collection protocols in Lesson 4, a simulation interface in Lesson 10 and the experimental design for Lesson 12. **Analyzing and Interpreting Data:** This unit **intentionally develops** this practice. It is the focus of the lesson-level performance expectations in nearly half of the lessons of the unit. This unit will be students' first exposure to working with large data sets and they will work with new types of data representations that they did not work with in the *One-way Mirror Unit* and the *Unknown material with identifier: te.n*, including maps at multiple temporal and spatial scale scales and with multiple types of	**PS1.A. Structures and Properties of Matter** ● **In a liquid, the molecules are constantly in contact with others; in a gas, they are widely spaced except when they happen to collide. In a solid, atoms are closely spaced and may vibrate in position but do not change relative locations.** ● **The changes of state that occur with variations in temperature or pressure can be described and predicted using these models of matter.** Students extend their models for particle spacing in gas and liquid, which they developed in the *Cup Design Unit*, to now show how the spacing of the particles in any fluid (gas or liquid) changes with temperature, which subsequently affects the density of that part of the fluid and helps explain why it convects. They use this model to explain (1) what is causing the vertical growth of some clouds, (2) what causes faster/stronger updrafts in some clouds compared to others and what holds droplets and ice crystals aloft, and (3) how this can help explain why some storms produce really big hail and others don't. Additionally, students extend their models for how particle motion is related to the state of matter to develop the idea that water molecules are attracted to each other and that when water molecules are moving fast enough, they can break away from and bounce off each other, but when they are moving slow enough, they clump and stick together. This helps students develop a mechanism to explain why an increase or decrease in the temperature of a substance would cause it to change in its state of matter. **PS3.A. The temperature of a system is proportional to the average internal kinetic energy and potential energy per molecule (whichever is the appropriate building block for the system's material). When the kinetic energy of an object changes, there is inevitably some other change in energy at the same time.** The idea that temperature is a measure of the average kinetic energy of the particles in a sample of matter was developed in the *Cup Design Unit* and is reused in Lesson 3. It is then combined with another idea also developed in that prior unit, that energy transfer can occur through conduction. These sets of ideas are reused throughout this unit. **PS4.B. When light shines on an object, it is reflected, absorbed, or transmitted through the object, depending on the object's material ~~and the frequency (color) of the light.~~** The idea that light can be absorbed and converted to thermal energy is an idea that was developed in the *Cup Design Unit* and is reused throughout this unit. Color based dependencies are not discussed in this unit. **ESS2.C. The Role of Water in Earth's Processes** ● **Water continually cycles among land, ocean, and atmosphere via ~~transpiration,~~ evaporation, condensation and crystallization, and precipitation, ~~as well as downhill flows on land.~~** ● **Global movements of water and its changes in form are propelled by sunlight and gravity.** ● **The complex patterns of the changes and the movement of water in the atmosphere, determined by winds, landforms, and ocean temperatures and currents, are major determinants of local weather patterns.** ● **Variations in density due to variations in temperature ~~and salinity~~ drive a global pattern**	**Cause and Effect:** This unit **intentionally develops** this crosscutting concept. Students figure out cause-and-effect relationships throughout this unit, and they apply cause and effect to predict and explain phenomena with increasing independence and to increasingly more complex phenomena as the unit goes on. Students connect together relationships that have more than one cause and also connect together longer causal chain processes that occur in more steps than they encountered in prior units. **Systems and Systems Models:** This unit **intentionally develops** this crosscutting concept. Students define system boundaries in a system where such boundaries do not have visible physical structures, something they have not done before. In addition, they represent the interactions, inputs and outputs for both matter and energy within and across these systems for multiple processes (radiation, conduction evaporation, condensation, crystallization, convection, and uplift) **Energy and Matter:** This unit **intentionally develops** this crosscutting concept. Students focus on a new element of this practice, figuring out the transfer of energy can drive the motion of matter in a system, as they develop a model for temperature differences in matter causing convection currents that move air.

data overlays. The structure of these data grows in complexity from Lesson 2 onward. For example, in Lesson 2, students analyze hail accumulation maps from multiple cities and in Lesson 6 they analyze two parallel sets of global maps (net radiation and land surface temperature) from two different times of year. In Lesson 14, analyze a time series set of national weather maps with multiple layers of overlaid data, including precipitation amounts and types, cloud cover, low-pressure air mass centers, and fronts. Students also work with more complex numerical data analysis than in prior units. **Constructing Explanations and Designing Solutions:** This unit **intentionally develops** this practice. Students use a new element of this practice, constructing explanations that include qualitative and quantitative relationships between variables to predict and describe phenomena. This unit also focuses on applying scientific ideas and principles to explain a very wide array of phenomena, including the formation of hail, the growth of clouds, some of the causes of precipitation and surface winds, the formation and strengthening of hurricanes, why fronts form and move the way they do, and why rainforests are sometimes located in some parts of the world but not in other areas nearby. This is a shift in complexity and both temporal and spatial scale of phenomena students tackle to explain than in prior units. The following practices are also **key to the sensemaking** in the unit: ● Asking Questions and Identifying Problems ● Using Mathematics and Computational Thinking ● Obtaining, Evaluating, and Communicating information	**of interconnected ocean currents.** In the unit, students determine where all the water in the air comes from by measuring the humidity in the air over samples of different Earth surfaces to help them figure out that individual water can evaporate from many different types of surfaces with water in or on them when they gain enough motion energy (kinetic energy). Students figure out that molecules of water vapor will start to condense or crystallize on cloud condensation nuclei (small, solid particles) when the air at 100% relative humidity is cooled and they develop a model to explain why don't water droplets or ice crystals fall from the clouds (precipitation) all the time. Students also develop ideas that rising air pushes up water droplets and crystals until they grow heavy enough to fall. The rising air in many cases can be traced back to density differences in that air that were the result of prior energy transfer from sunlight to the surface and from the surface to some of the air (via conduction). This idea is reused to explain large-scale air masses and storm systems in the unit. Students figure out that there are patterns in the direction that air and precipitation move over a region, which are caused by prevailing winds and the prevailing winds and these can help us predict where that air has come from. By the end of the unit, students figured out that the ocean is warmer near the equator and cooler near the poles, ocean currents can bring warmer waters toward the poles and cooler waters toward the equator, and since more evaporation occurs over warmer ocean waters, the temperature of the ocean affects the humidity of the air moving over it. They figure out how changes in elevation affect the flow of air over the land and that air that is forced upward due to elevation increases in the land cools as it rises which causes it to lose water vapor in it through condensation and precipitation. **ESS2.D. Weather and Climate** ● **Weather and climate are influenced by interactions involving sunlight, the ocean, the atmosphere, ~~ice,~~ landforms, ~~and living things~~. These interactions vary with latitude, altitude, and local and regional geography, all of which can affect oceanic and atmospheric flow patterns.** ● **Because these patterns are so complex, weather can only be predicted ~~probabilistically~~.** ● **The ocean exerts a major influence on weather and climate by absorbing energy from the sun, releasing it over time, and globally redistributing it through ocean currents.** Students develop ideas across lessons 2-18 are used to explain weather-related phenomena and additional ideas developed in lessons 19-22 are used to explain climate-related patterns. In lesson 14-18, students develop the idea that what was happening in the air in or around one part of the country at one point in time can be used to make predictions about what is likely going to happen in another part of the country at a later point in time. Students do not develop ideas about the probabilistic nature or certainty of such predictions in this unit, as many probability-based ideas aren't targeted in the common core math standards until 7th grade. In lesson 4, students figure out that sunlight warms the earth's surface, and that this also includes the oceans in lesson 20. They also figure out that the ocean is warmer near the equator and cooler near the poles, and that ocean currents can bring warmer waters toward the poles and cooler waters toward the equator, and since more evaporation occurs over warmer ocean waters.	They also develop the idea that state changes are also caused by the transfer of energy, which in turn also drives the cycling of matter in and out of the atmosphere. **Stability and Change:** This unit **intentionally develops** this crosscutting concept. Students figure out a new element of this crosscutting concept, figuring out how to explain stability and change in systems by tracking particle interactions over time and at different scales. Students extend their particle level model developed in prior units to explain how a parcel of fluid such as air will rise, fall, or remain in a stable position based on particle interactions. They also extend this particle level model to explain why the state of water is relatively stable above or below a certain temperature, but a state change occurs when that temperature threshold is crossed. The following crosscutting concept is also **key to the sensemaking** in the unit: ● Pattern

Phenomenon



Unit Question: Why does a lot of hail, rain, or snow fall at some times and not others?

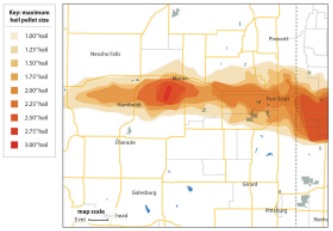
Driving Questions	Lesson Level Phenomena	Activity	Learning Targets
Learning Set 1 (Lessons 1-6):			
LESSON 1 3 days **What causes this kind of precipitation event to occur?** Anchoring Phenomenon	 *Large, frozen pieces of water fall from the sky during storms at different locations on what appear to be relatively warm days.*	We observe three video clips of hail falling in different areas of the United States on different days. We develop a model to try to explain what causes this to occur. We develop questions for our Driving Question Board (DQB) about the mechanisms that cause different kinds of precipitation events. We brainstorm investigations we could do and sources of data that could help us figure out answers to our questions. We figure out these things: • Rain and wind accompany some hail events. • Some of the water that reaches the ground reached a low enough temperature to freeze, at some point, before it fell. • Clouds can be seen moving into and out of the area where it hailed. • Cloud movement in the sky, moving air (wind) at Earth's surface, and temperature may be related to why, where, and when different forms of precipitation fall.		**1.A** Develop an initial model to describe changes and mechanisms at both the observable and the particle level that cause hail to fall during a brief time period. **1.B** Ask questions that arise from careful observation of phenomena and gaps in our current models to clarify and seek additional information about how changes to the flow of matter and energy in the air above and around a location on Earth's surface could cause short-duration precipitation events and longer-duration precipitation events (scale).

LESSON 2

1.5 days

What are the conditions like on days when it hails?

Investigation



Images of hailstones show that they come in different shapes and sizes. Maps and weather condition data show that hailstorms occur in many places and on relatively warm days.

We examine photos of hailstones and analyze and interpret data from cases of hail events at different locations and times of year to notice patterns and identify relevant factors that might explain the formation of hail. We figure out these things:

- Hailstones are made of ice, often in layers.
- Hailstorms are more common in the central United States, with fewer events in the west.
- The days that have hail also have relatively warm air temperatures (mostly in the 50–90°F range, which is above the melting/freezing point of water) and relative humidity in the range of 37–96 percent.
- Hailstorms happens later in the day in the spring, summer, and fall. They impact a small area (20-60 square miles).

2.A Analyze and interpret data using graphical displays (e.g., maps, charts, graphs, tables) of large data sets to identify temporal and spatial patterns in the range of weather conditions that lead to the formation of precipitation (hail).

LESSON 3

1.5 days

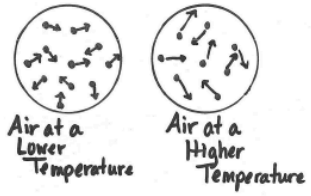
How does the air higher up compare to the air near the ground?

Investigation

Weather balloon data from four sites at four different times during the year show that the temperature of the air closer to the ground is warmer than the temperature of the air higher up in the atmosphere.

We analyze and interpret temperature profiles of the atmosphere collected from weather balloons at various altitudes at different locations during different times of the year. We develop a consensus model for representing the motion of the molecules that make up air at different temperatures. We figure out these things:

- Regardless of the season, the temperature of the air always decreases as you move away from Earth's surface and higher into the atmosphere.
- The air temperature at very high altitudes (approx. 40,000 ft) is coldest in winter.
- When the temperature of the air increases, the speed of the molecules that make up air increases, and when the temperature of the air decreases, the speed of the molecules that make up air decreases.



3.A Analyze and interpret sets of data to identify patterns (similarities across data sets) that provide evidence that air temperature changes based on altitude above Earth's surface independently of geographical location or time of year.

3.B Develop a model to show the relationship between the motion of the molecules that make up air and the energy of those molecules to explain the patterns of change in air temperature at variou

LESSON 4

2.5 days

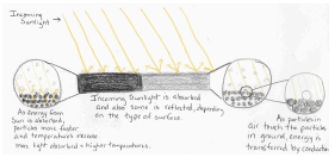
Why is the air near the ground warmer than the air higher up?

Investigation

Surfaces on Earth absorb and reflect light differently.

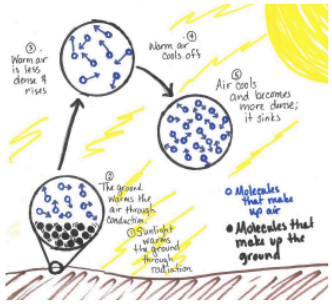
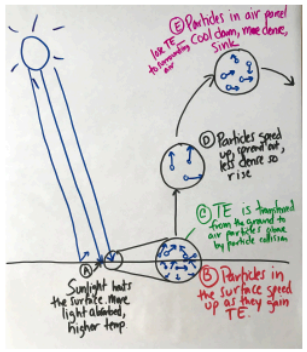
We plan and carry out an investigation to figure out what causes the air above different ground surfaces to be warmer than the air higher in the atmosphere. We measure the temperature of the air at different ground surfaces, the air temperature above those surfaces, and the amount of sunlight reaching and reflecting off those surfaces. We figure out these things:

- Energy from the Sun is absorbed by the ground, which then increases the kinetic energy (and therefore temperature) of the particles in the ground.
- Different surfaces heat up differently depending on how much energy from the Sun is absorbed.
- As particles in the air come into contact with the ground, energy is transferred to those particles through conduction.
- On a sunny day, air temperatures above the ground are cooler than the ground itself.



4.A Plan an investigation collaboratively by identifying variables of interest, tools to gather data, methods for obtaining measurements, and how many sites are necessary to determine if a pattern exists between the temperature of the ground and the temperature of the air right above it.

4.B Collect, analyze, and interpret data using graphical displays (tables of data we obtain from our own investigations) to identify ground and surface air temperature patterns as they relate to incoming and reflected solar radiation.

		4.C Develop and use a model to describe phenomena and unobservable mechanisms that track the transfer of energy from the Sun to the ground and then to the air at the surface.
LESSON 5 2.5 days **What happens to the air near the ground when it is warmed up?** Investigation	 *Warming and cooling air in a bottle with a soap bubble film over the opening causes the bubble to inflate and deflate. Warming a helium-filled Mylar balloon causes it to increase in volume and rise upward; it decreases in volume and sinks as it cools.*	We conduct an investigation to figure out how transferring thermal energy into and out of a parcel of air in a closed system (a bottle of air with a soap bubble film over the top) affects that air's volume and behavior. We conduct a second investigation to observe how density changes in a parcel of air (in a balloon) cause it to float or sink in the surrounding air. For each investigation, we develop a model to represent how the speed, spacing, and density of the molecules that make up air are affected by temperature changes. We figure out these things: • Changing the temperature of a parcel of air causes changes in the air's density due to changes in the kinetic energy (speed) and spacing of the molecules that make up the air. • Parcels of air that are less dense than the surrounding air rise. Parcels of air that are more dense than the surrounding air sink. • As they rise, parcels of warm, less dense air eventually cool off, transferring thermal energy to the surrounding air.		**5.A** Conduct investigations to collect and use observations and data as evidence to determine the effects of thermal energy transfer to the air in contact with Earth's surface. **5.B** Develop and use a model to track and describe how transferring thermal energy to and from a fixed amount of air (matter) in a closed system affects its volume and density due to unobservable mechanisms (causes), including changes in the speed and spacing of the molecules that make up that air.
LESSON 6 2 days **How can we explain the movement of air in a hail cloud?** Putting Pieces Together	 *A time-lapse video shows vertical cloud growth on a sunny day in the type of cloud that tends to form hail.*	We examine photos and a video of clouds that produce hail to look for patterns in the motion of air. We construct an explanation using evidence for the path of air movement below, within, and at the top of a cloud that tends to form hail. We figure out: • Air near the surface of the ground is warmed from thermal energy transfer from the ground through conduction. • The warm air near the ground becomes less dense than the surrounding air and rises. • Eventually, the warm air transfers its energy to the surrounding air, becoming just as cold and dense as the air around it, and it stops rising. • If that air becomes even cooler than the surrounding air, it sinks. • This type of air movement happens more on sunny days because the air right above the ground gets warmed up more by light from the Sun on those days. • Air is a mixture of different types of substances) in the gas state including water vapor which is measured as humidity.		**6.A** Analyze and interpret data including graphical displays of large data sets to identify cause-and-effect relationships to construct an explanation of how the movement of parcels of air via conduction and convection causes the upward and downward movement of air in clouds. **6.B** Develop and use a model to describe how thermal energy from the Sun causes movement of parcels of air via conduction to cause the formation of clouds. **6.C** Obtain information by reading scientific texts adapted for classroom use and summarize key ideas to determine that the air is a mixture of different types of gases (matter), including water vapor, and that relative humidity is a measure of a small proportion of molecules of water vapor in the air.

Mid-Unit Assessment: [Lesson 6 Explaining the Movement of Air in a Hailstorm Cloud]

Learning Set 2 (Lessons 7-13):

LESSON 7

2 days

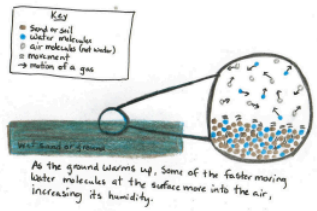
Where did all that water in the air come from, and how did it get into the air?

Investigation

Models of different Earth environments show an increase in relative humidity when thermal energy (heat) is added to the system.

We plan and carry out an investigation to determine where the water in the air comes from by measuring the humidity in the air over samples of different Earth surfaces. We figure out these things:

- Water can go into the air (increasing its humidity) from many different types of surfaces with water in or on them.
- When individual water molecules on the surface of a liquid gain enough motion energy (kinetic energy), they leave the liquid to become a gas; this process is called evaporation.



7.A Plan and conduct an investigation using a model to gather data to serve as evidence to support a claim about where water in the air originates (inputs).

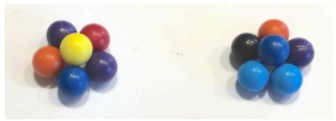
7.B Develop and use a model to predict and describe changes in particle motion and the movement of water molecules from a liquid into the air (via evaporation) when the thermal energy of the water increases (cause).

LESSON 8

2 days

What happens to water vapor in the air if we cool the air down, and why?

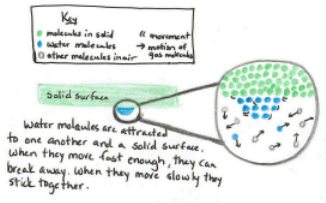
Investigation



Water droplets appear and grow on cool surfaces when humid air comes in contact with them. When two water droplets touch, they move toward each other to become one. The motion and interactions between magnetic marbles in a collision change depending on how fast they are moving.

We carry out investigations to explore what happens when air containing water vapor is cooled and what happens when water droplets make contact with each other. We use magnetic marbles to develop a model for how mutual attraction between water molecules and changes in their speed cause water to change from gas to liquid when it cools below a certain temperature.

- Water molecules are attracted to each other. When they are moving fast enough, they can break away from each other and bounce off each other. When they are moving slow enough, they clump and stick together.
- Water droplets can grow over time as they run into other water droplets or as more molecules of water vapor condense and stick to them.
- When water is below a certain temperature (its condensation/boiling point), the molecules are moving slow enough to remain in liquid form; when water is above that temperature, the molecules are moving fast enough to remain in gas form; they change state when cooled below or heated above that temperature.



8.A Carry out an investigation to collect data about the patterns in the appearance and growth of water droplets in humid air that is cooled down and how water droplets interact to serve as evidence to explain the causes of condensation (effect).

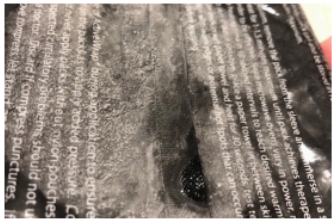
8.B Develop and use a model to describe unobservable mechanisms that explain why the mutual attraction between water molecules and a decrease in their speed causes them to condense (effect) when water reaches a low enough temperature (condensation/boiling point).

LESSON 9

1 day

Why don't we see clouds everywhere in the air, and what is a cloud made of?

Investigation



Informational text describes what clouds are made of, why we can see them, the role of cloud condensation nuclei, and methods of cloud seeding. Ice crystals appear and then grow larger on the surface of a cold gel pack over a container with humid air in it.

We read about what clouds are made of, why we can see them, the role of cloud condensation nuclei, and methods of cloud seeding. We argue that what happens in clouds is similar to what we see happen on the surface of a cold gel pack over humid air in our 2-L bottles. We figure out these things:

- Clouds are made of water droplets and/or ice crystals and molecules of gas (including water vapor).
- We see clouds because the water droplets or crystals in them reflect and scatter or absorb a noticeable amount of light.
- For molecules of water vapor in the air to start the condensation or deposition process, the air has to reach 100% humidity and then be cooled. The water vapor also needs a solid surface to stick to. In the air, these surfaces are cloud condensation nuclei (small, solid particles).

9.A Obtain and communicate information by reading scientific texts adapted for classroom use to determine key ideas and cause-and-effect relationships related to what clouds are made of, why we can see them, the role of cloud condensation nuclei, and methods of cloud seeding.

9.B Apply scientific ideas and principles to **construct an explanation** and represent interactions between energy and matter that lead to the condensation and crystallization of water in the atmosphere and the formation of clouds.

LESSON 10

2 days

Why do clouds or storms form at some times but not others?

Investigation

Changing temperature and humidity inputs changes the size of the thunderstorm developed in a computer simulation.

We use our *Gotta-Have-It Checklist* to test and revise a thunderstorm simulation to produce larger and smaller storms. We focus on temperature and humidity conditions that are likely to produce storms. We think about what additional features we would like to include in the simulation and we design interfaces for those features. We figure out these things:

- A greater difference between near-ground and atmospheric temperatures is correlated with larger storm development.
- Higher humidity is correlated with stronger storms.
- Simulations are models that can represent only parts of a system, which limits their use.

10.A Modify a model—based on evidence—to build a storm system by changing the input variables, such as temperature and humidity, and measuring changes in the output, the size of storm formation.

10.B Evaluate the limitations of the thunderstorm simulation, identifying which aspects of the system are represented in the model and which additional aspects could be added to account for thunderstorm development.

10.C Construct an explanation that includes correlational relationships between temperature and humidity that can be used to predict storm development.

LESSON 11

2 days

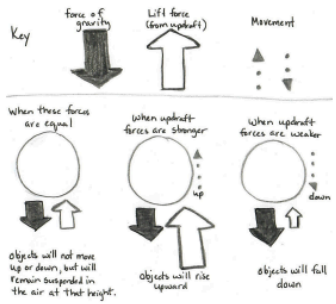
Why don't water droplets or ice crystals fall from the clouds all the time?

Investigation

Tissue paper and a Ping-Pong ball can be suspended in the air by blowing air on them from below. Air blown downward onto a scale or away from it affects the amount of force registered on the scale. A pointer taped to a balloon stretched over the mouth of a jar moves upward when additional force is applied downward on the balloon.

We try to lift or suspend different objects with air blown upward, and we record the weight of different objects and the amount of force registered when air is blown toward or away from a digital scale. We develop a model to show how objects might be lifted, fall, or remain suspended in the air depending on the relative strength of two different forces acting on them. We record the air pressure using a homemade barometer and record the cloud cover and precipitation outside. We figure out these things:

- The more mass something has, the greater the force of gravity pulling down on it (which can be measured as its weight on a scale).
- Moving air (wind) pushes (exerts a force on) matter in its path.
- Air moving upward (updrafts) can keep an object suspended or floating in the air when the force from the molecules in that air colliding with that object counterbalances the downward force from gravity. When those forces are no longer balanced, the object that was suspended will start moving upward or downward.
- A barometer can detect changes in the density of the air outside of it.



11.A Use mathematical thinking and construct an explanation to predict patterns in the relationship between the relative strength of two opposing forces on different objects and the resulting change in motion of those objects.

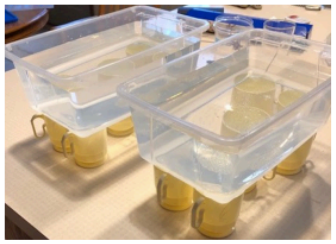
11.B Develop a model to represent balanced and unbalanced forces on an object suspended by an upward current of air, and use the model to predict and explain whether the object would remain suspended (stability) or start moving downward or upward (change) due to the relative strength of the opposing forces.

LESSON 12

2 days

What causes more lift in one cloud versus another?

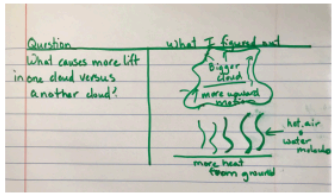
Investigation



Dye added to water in a tub rises and moves differently when different amounts of thermal energy are added to the system.

We plan and carry out an investigation to determine what variables affect the amount of lift produced in a fluid. We explain how the results of our investigation help us understand how differences between air and ground temperatures can cause different amounts of lift and movement of air. We figure out these things:

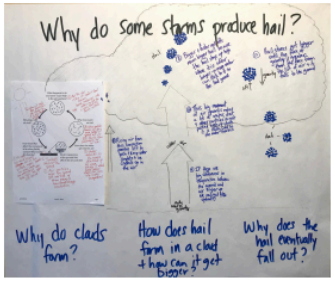
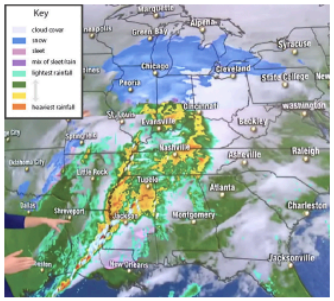
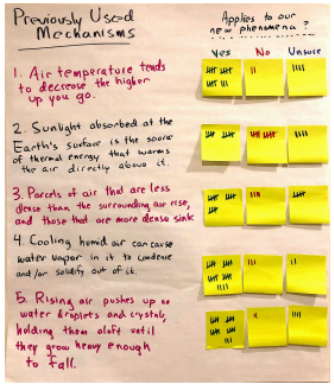
- When one spot in a fluid heats up, it becomes less dense, which causes it to rise. When it cools down, it becomes more dense and sinks. This leads to circular motion in fluids, called convection.
- The greater the thermal energy input into the fluid, the stronger the lift or convection currents. The more of Earth's surface that is in contact with the air above it, the more thermal energy it can transfer to that air.
- Some winds are the result of this convection. Air at the surface moves toward an area where warmed air rose, filling in the space left behind.



12.A Collaboratively plan an investigation to collect data, identifying independent and dependent variables and controls and how the data are recorded, to serve as the basis for evidence that greater temperature differences between the ground and the air higher in the atmosphere cause greater lift (effect) of air.

12.B Develop a model to represent how varying inputs of thermal energy affect the resulting movement of air (output) to show the relationships among variables that can predict greater lift and movement of air.

12.C Construct an explanation that includes qualitative relationships between variables that predict the movement of a fluid (air), based on the transfer of energy that drives the motion.

LESSON 13 3 days **Why do some storms produce (really big) hail and others don't?** Putting Pieces Together	 *Different storms produce different types of precipitation (snow, rain, hail). Storms that produce larger hail also produce stronger updrafts.*	We add to our Gotta-Have-It checklist and develop a final model to explain why some storms produce hail. We revisit the DQB and discuss the questions that we have now answered. We apply our understanding to a new phenomenon (hurricanes) and individually take an assessment.		**13.A** Develop and use a model to describe and explain unobservable mechanisms that drive the cycling of matter and the flow of energy into and through the air to cause some storms to produce large hail while others do not. **13.B** Construct an explanation, using a model and previously developed science ideas, to explain what causes hurricanes to form, grow, and produce (effect) strong winds and large amounts of rain (cycling of matter and flow of energy).
Mid-Unit Assessment: Lesson 13 Hurricane Model Assessment				
Learning Set 3 (Lessons 14-18):				
LESSON 14 2 days **What causes a large-scale precipitation event like this to occur?** Anchoring Phenomenon	 *Different forms of precipitation were falling over the midwestern United States on the morning of Saturday, Jan. 19, 2019. A forecast predicts that this storm will produce heavy snowfall and ice accumulation in the northeastern United States by the end of the weekend.*	We explore video and maps from three parts of a weather report and forecast from Jan. 19, 2019. We develop a model to explain how what was happening in one part of the country at one point in time can be connected to what is predicted to happen in another part of the country over a day later. We develop questions for our Driving Question Board (DQB). We brainstorm ways we could investigate these questions. We will figure out these ideas: • Some storms are very large (hundreds of miles across) and can last for many days. • These large-scale storms can produce different types and amounts of precipitation over different areas. • Many of the mechanisms we used to explain small-scale precipitation events seem like they could be relevant to explaining large-scale storms too. • Large-scale storms also may have something to do with large areas of cold air and warm air moving over great distances.		**14.A** Analyze data using maps of national weather conditions and forecasts to identify temporal and spatial relationships (patterns) between precipitation, cloud cover, temperature, and air pressure. **14.B** Develop an initial model to explain how precipitation that is happening in one part of the country at one point in time could be connected (cause/effect) to what is predicted to happen in another part of the country at a later time. Use a previous model to identify mechanisms at the observable and the particle levels to explain the causes of this large-scale weather phenomenon. **14.C** Ask questions about possible patterns in and causes for a storm affecting large parts of the country over multiple days or causes shared between this precipitation event and a smaller-scale, shorter-duration precipitation event (a hailstorm).

LESSON 15

2 days

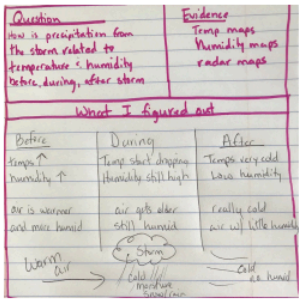
What happens with temperature and humidity of air in large storms?

Investigation

Students analyze temperature, humidity, and radar data to track the progression of the storm and precipitation along the front line.

In this lesson we use temperature, humidity, and radar data across eight-hour increments during the timeline of the storm to track the movement of air and precipitation. We consider how air moves horizontally in large parcels, called air masses, and we also notice that precipitation and storms develop where air masses of different characteristics meet. As a class, we develop different ways of representing what is happening with warm air and cold air across the land. We figure out these ideas:

- Air masses are large parcels of air (hundreds of miles wide) with similar characteristics (e.g., temperature, humidity).
- Air masses move horizontally, such as from west to east across the United States.
- Storms and precipitation can develop where two air masses with different characteristics meet; this boundary is called a *front*.



15.A Use graphical displays of temperature, humidity, and radar data to identify temporal and spatial patterns as air masses interact in a large storm system.

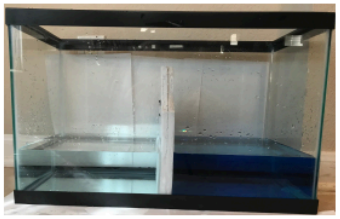
15.B Use an argument supported by empirical evidence and scientific reasoning based on patterns from data and maps to support an explanation that precipitation forms along the boundary of two air masses with different temperature and humidity characteristics.

LESSON 16

2 days

How do warm air masses and cold air masses interact along the boundaries between them?

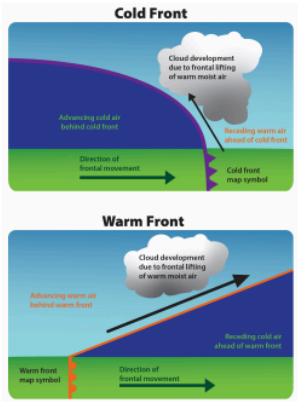
Investigation



When warm water and cold water interact, cold water sinks, pushing warm water upward. This serves as a model for the interactions that occur between warm and cold air masses in the atmosphere.

We carry out an investigation to explore what happens along a frontal boundary where warm air and cold air meet. We develop models to describe interactions between warm and cold air masses and use patterns in data to explain changes in precipitation that can occur when air masses collide. We figure out:

- When a warm air mass moves toward a cold air mass, the warm air slides over the cold air. When a cold air mass moves toward a warm air mass, the cold air pushes into and below the warm air, pushing it up and over. Both interactions cause predictable changes in weather.
- The maximum amount of water vapor that air at a given temperature can hold is referred to as 100% relative humidity.
- The maximum amount of water vapor that can be in the air changes based on the temperature of the air; warmer air can hold more water vapor than colder air.
- Cooling air at 100% relative humidity will cause water vapor to condense out of the air; the greater the decrease in air temperature, the greater the amount of water vapor that will condense out of it.



16.A Develop and use models to observe and describe the complex patterns of change that occur when warm and cold air masses interact in the atmosphere.

16.B Use computational thinking to describe how patterns in data support explanations of the changes in weather that occur where warm and cold air masses interact.

LESSON 17

1 day

Is there a relationship between where the air is rising and where precipitation falls?

Investigation

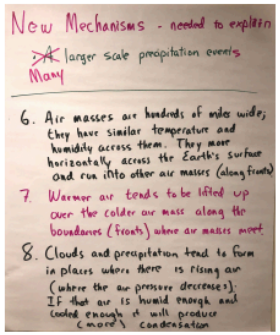
Pressure maps for the United States show different amounts of air pressure in different places at different times. A homemade barometer detects changes in the density of the air outside of it.

We analyze national pressure maps from around the time of the original forecast. We construct an explanation of the patterns we notice among (1) the area of lowest air pressure, (2) the locations of the fronts, and (3) where precipitation would fall. We apply scientific ideas to explain what is causing these three things to be connected to one another. We will figure out these ideas:

- When the air pressure outside decreases, it tends to correspond with the appearance of cloudier skies and in some cases precipitation.
- Large-scale, low-pressure air masses can move and their movement can be predicted.
- The movement and location of warm and cold fronts appear to be connected to this low-pressure center.
- Precipitation tends to fall along the line of the cold front and warm front and behind the low-pressure center.

17.A Analyze data using maps of air pressure recorded over the country at different points in time and forecasts (temporal and spatial relationships) to identify patterns (the movement of low-pressure systems) and the relationship between this (patterns) and the location of fronts and precipitation.

17.B Construct an explanation that includes the qualitative relationships presented in a weather forecast among (1) the area of lowest air pressure and where it will move to, (2) the locations of the fronts, and (3) where

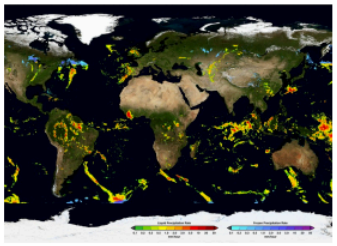
	precipitation will fall, using scientific ideas and principles to explain what would be causing these three things to be connected to one another.
LESSON 18 2 days **How can we explain what is happening across this storm (and other large-scale storms)?** Putting Pieces Together, Problematizing   *A weather forecast shows that three different storm systems were predicted to affect different parts of the United States from the morning of Nov. 22, 2019 into Nov. 27, 2019.* We explore video and maps from three parts of a weather report and forecast from Jan. 19, 2019. We develop a model to explain how what was happening in one part of the country at one point in time can be connected to what is predicted to happen in another part of the country over a day later. We develop new questions for our Driving Question Board (DQB) and brainstorm ways we could investigate these questions. We will figure out these things: • Many storms are due to the path that air masses follow as they are moving, other air masses they interact with along their boundaries (fronts), and how much lift occurs in the air mass or along those fronts. • We have new questions about whether certain weather patterns are typical for different places in our country and what causes any differences in those from one place to another over longer periods of time. 	**18.A** Compare and critique two arguments on the same topic and analyze whether they emphasize similar or different mechanisms (cause) in their explanations of the patterns in how the weather changed (effect) during the Jan. 19, 2019 storm. **18.B** Apply scientific ideas and related evidence to evaluate whether the new mechanisms (air mass movement, interaction of fronts, and low pressure areas [cause]) that were used in an explanation of one large-scale storm are also needed to explain the patterns in the how the weather will change [effect] in the predictions made for three other storms occurring at a different time of year. **18.C** Ask questions about typical patterns and causes related to these in how air masses move across the country and how where a place is located (near the coast or inland, high elevation or low, in the northeast vs. southwest) affects the amount and type of precipitation that the place receives over more than a few years.
Learning Set 4 (Lessons 19-22):	

LESSON 19

1 day

Are there patterns to how air masses move that can help predict where large storms will form?

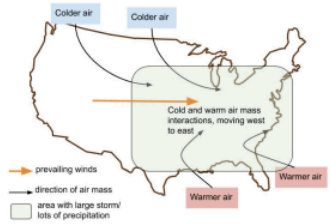
Investigation



Visualized precipitation data reveal predictable patterns in the movement and direction of air masses.

In this lesson, we observe a visualization showing precipitation movement across the United States in a predictable pattern from west to east in most locations. These predictable air movements seem to bring colder air from the north and warmer air from the south. We zoom out to a global view and notice the U.S. pattern is the same as other places in the northern hemisphere and a mirror image of the southern hemisphere. We figure out these things:

- There are patterns in the direction that air and precipitation move over a region.
- Patterns in air movement are caused by prevailing winds and the prevailing winds in the northern hemisphere mirror the southern hemisphere.
- These patterns help us predict where air and precipitation come from (colder from the north and warmer from the south).
- Climate is the long-term average of weather in an area, typically averaged over 30 years.



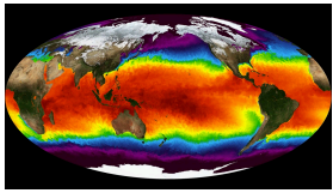
19.A Use visualized precipitation data from a large data set to identify spatial patterns in the direction of air masses movement that influences long-term weather patterns in predictable ways.

LESSON 20

2 days

How do oceans affect whether a place gets a lot or a little precipitation?

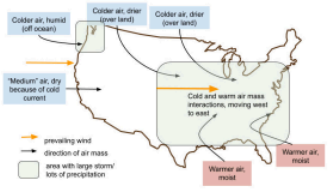
Investigation



Ocean temperatures and currents affect evaporation rates and therefore the temperature and humidity of different air masses.

In this lesson, we come to agreement about the temperature of air masses and the direction of their movement. We gather additional information about the role of the ocean by observing a visualization of ocean temperatures, reading about ocean currents, and interpreting precipitation data for coastal cities. We revise a model for air mass interactions that explain (1) the places where certain kinds of air masses form, and (2) their predictable movements over time. We figure out:

- The ocean is warmer near the equator and cooler near the poles.
- Ocean currents can bring warmers waters toward the poles and cooler waters toward the equator.
- More evaporation occurs over warmer ocean waters.
- The temperature of the ocean affects the humidity of the air moving over it.



20.A Integrate text and media to gather additional information to clarify how ocean currents that circulate cooler and warmer waters to different latitudes affect air mass temperature and humidity.

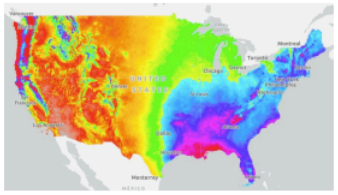
20.B Use sea surface temperature maps and tabular precipitation data to articulate a spatial pattern connecting offshore ocean temperatures to precipitation on land.

LESSON 21

2 days

Why is there less precipitation further inland in the Pacific Northwest than further inland from the Gulf Coast?

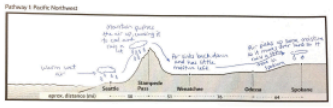
Investigation



Data from five locations along prevailing wind pathways in the Pacific Northwest and Gulf Coast show that changes in elevation are associated with changes in air temperature and precipitation.

We analyze precipitation, temperature, and elevation data at five locations along two different prevailing wind pathways to explore why there is less precipitation further inland in the Pacific Northwest than there is further inland from the Gulf Coast. We model what happens as an air mass moves from above the ocean to locations over mountains and relatively flat landforms. We develop a list of key ideas and data we need to explain climate patterns in places outside of the United States. We figure out:

- Changes in elevation affect the flow of air over the land.
- As elevation increases, the air flowing over the land is forced upward; as elevation decreases the air flowing over the land can fall back downward.
- Air that is forced upward cools as it rises and tends to lose much of the water vapor in it through condensation and precipitation.



21.A Analyze and interpret data to identify patterns in the data to provide evidence of the relationship between elevation (cause), air temperature, and precipitation (effect).

LESSON 22 1 day **How can we explain differences in climate in different parts of the world?** Putting Pieces Together	 *South America has both temperate and tropical rainforests, which have high precipitation rates but different average temperatures.* We use our key ideas list from Lesson 21 to explain why the rainforests are located where they are and why they have different climates. We revisit the Driving Question Board and discuss all of our questions that we have now answered.	**22.A** Use graphical displays of global climate datasets (e.g., sunlight, ocean temperature, water and wind movement) to identify relationships between the transfer of energy and the cycling of matter that explain the location and climate of rainforests around the globe.
Final Assessment: Lesson 22 Rainforest Climate Assessment		

Additional Resources:

- Driving Question Board
- Question Formulation Technique (QFT)
- KQL
- Talk Activities
- Summary Table
- Final Scientific Modeling
- Final Scientific Modeling
- CCC Discussion Cards
- 321 Strategy active viewing
- 60 Formative Assessment Ideas
- CER

Unit Overview	
Unit Title:	Plate Tectonics & RockCycling (OpenSciEd Unit 6.4)
Author(s):	Lindsay Davenport
Grade Level/Course:	Grade 6/Science
Length/Dates:	8 weeks (approximate timeline is Mid-April - June)
Unit Summary: 2-4 sentences describing the main ideas, content and skills of the unit.	In this unit, students investigate the 2015 Himalayan earthquake, discovering that Mt. Everest is growing in elevation and shifting northeast, prompting questions about changes in other mountains. They analyze data from five additional peaks, finding some growing, shrinking, or remaining stable, and develop an initial model for how mountains can change. Students then explore earthquakes, examining how vertical and horizontal shifts relate to mountain movement. Through plate movement data and models, they conclude that moving tectonic plates cause earthquakes, which in turn are correlated with changes in mountain elevation and position.

Performance Expectations *(This unit builds toward these performance expectations)*

MS-ESS1-4:
Construct a scientific explanation based on evidence from rock strata for how the geologic time scale is used to organize Earth's 4.6-billion-year-old history.

MS-ESS2-2:
Construct an explanation based on evidence for how geoscience processes have changed Earth's surface at varying time and spatial scales.

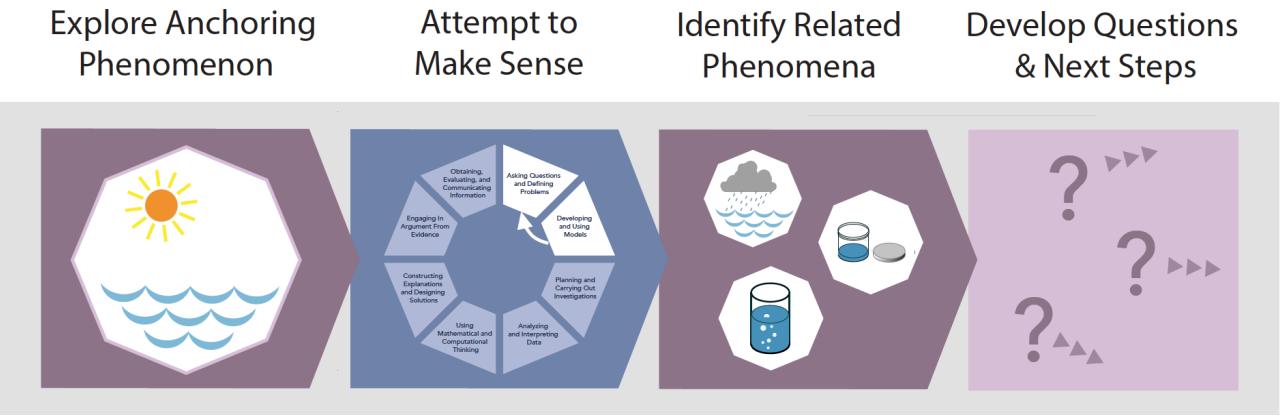
MS-ESS2-3:
Analyze and interpret data on the distribution of fossils and rocks, continental shapes, and seafloor structures to provide evidence of the past plate motions.

MS-ESS2-1:
Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.

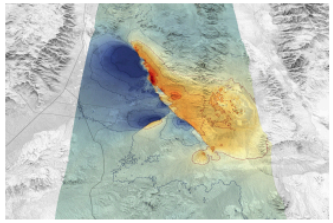
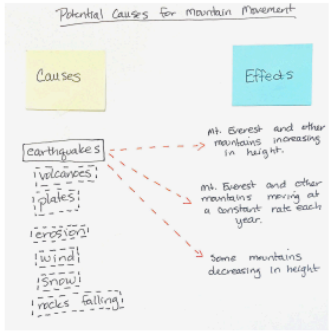
SEP Implications (Science and Engineering Practices)	DCI Implications (Disciplinary Core Ideas)	CCC Implications (Cross Cutting Concepts)
Developing and Using Models: This unit **intentionally develops** this practice. While students have engaged with the elements of this practice in earlier units, they are applying these elements in models at a much larger temporal and spatial scale than before. In *Cup Design Unit*, students develop particle level models of a concrete phenomenon they can manipulate. In *Storms Unit*, students continue to develop this practice to a larger context that is unobservable both at a micro and macro scale when they model a storm system. In this unit, students further develop this practice as they develop, revise, and use models multiple times over the course of the unit to explain the causal relationship between plate movement, erosion forces and changes to the surface of Earth. Student models become more sophisticated over the course of the unit as they continue to collect evidence supporting causal changes to Earth. **Using Mathematics and Computational Thinking:** This unit **intentionally develops** this practice. Students engage with mathematical reasoning as they grapple with what Earth looked like in the past. Using rate of plate movement, students determine where the continents could have been in the past. Students also engage in a new aspect of mathematical and computational thinking as they work with representations of very large data sets through computer interactives. To support this practice, aspects of the simulations are slowly added to allow students to analyze the data that is being represented over the course of the unit. Students engage with these simulations in Lesson 2, 3, 4, 5, 12. **Constructing Explanations and Designing Solutions:** This unit **intentionally develops** this practice. As students carry out investigations and analyze data to collect evidence, they construct explanations at pivotal places in the unit to explain causal relationships between changes to Earth's surface and processes being investigated. These explanations draw on the new idea that is this unit's focus, that theories and laws that describe the natural world operate today as they did in the past.	**ESS1.C. The History of Planet Earth** **The geologic time scale interpreted from rock strata provides a way to organize Earth's history. Analysis of rock strata and the fossil record provide only relative dates, not an absolute scale.** Students will engage in an analysis of layers to determine that older material is below younger material. Students, using mathematical reasoning, determine the time period from which we should gather data, and analyze rock strata and fossil data to determine the location of past continents from the specified time period. **ESS2.A. Earth's Materials and Systems** ● **All Earth processes are the result of energy flowing and matter cycling within and among the planet's systems. This energy is derived from the sun and Earth's hot interior. The energy that flows and matter that cycles produce chemical and physical changes in Earth's materials and living organisms.** Students determine that the energy derived from the sun is the main driver of erosional forces above the surface of Earth, and the magma is moving due to the energy derived from Earth's hot interior. These processes cause changes to Earth's materials (above and below the surface). ● **The planet's systems interact over scales that range from microscopic to global in size, and they operate over fractions of a second to billions of years. These interactions have shaped Earth's history and will determine its future.** Students analyze plate interactions from large spatial and temporal scales and compare them to annual rates of plate movement and erosional forces to determine that the processes of mountain creation and destruction occur over millions of years. Students use the understanding that these interactions have happened in the past and will continue to do so in the future to explain why a marine fossil found on Mt. Everest will not always be there. Students also learn about the causes and why earthquakes are such sudden events, and about how small erosional rates can add up over thousands to millions of years. **ESS2.C. The Roles of Water in Earth's Surface Processes** **Water's movements—both on the land and underground—cause weathering and erosion, which change the land's surface features and create underground formations.** Students learn about erosional rates on mountains and develop an understanding that the movement of water and wind cause weathering and erosion. These forces add up over time to change the land's surface and can decrease the size of mountains that are experiencing uplift at a lower rate than erosion. Erosion can also cause changes like the rounding out or wearing down of surfaces over time. **ESS1.C. The History of Planet Earth** **Tectonic processes continually generate new ocean sea floor at ridges and destroy old seafloor at trenches. (HS.ESS1.C GBE),(secondary)** Students analyze data from the Mid-Atlantic Ridge and plate movement data to determine that the seafloor and Atlantic Ocean is getting wider in that location. Students generalize this out to determine that over time, as plates move away from each other, new seafloor is created at ridges. Students analyze interactions at the Andes and determine that seafloor is also destroyed over time as plates move together. This occurs at all of our trenches.	**Cause and Effect:** This crosscutting concept is **key to the sensemaking** in this unit. This unit follows a thread of causal and correlational relationships in connection with mountain change. Students begin the unit by brainstorming potential causes of mountain movement - such as earthquakes, volcanoes, erosion, etc. Then through the unit they investigate how each of these processes happens and the effect they have on Earth. **Scale, Proportion, and Quantity:** This unit **intentionally develops** this crosscutting concept. Through the unit, students routinely work with scales that are too small or large to be observed in our given space and over our lifetimes. Students consider how plate movement happens very slowly, but over the course of millions of years, large plates can move great distances and at scales that can be seen globally. Students also learn how erosion happens very slowly and at a small scale, but can make larger changes over geologic time. Students also use proportional relationships to guide their mathematical and computational thinking about plate movement processes. **Stability and Change:** This unit **intentionally develops** this crosscutting concept. Throughout the unit, students consider the small changes that occur to Earth's surface yearly (such as the plate movement rate, or rates of erosion versus uplift) to

Initially students construct explanations about relationships between earthquakes and mountains changing. Then they construct an explanation about relationships between ***plates moving***, and earthquakes and mountains moving. Eventually, at the end of the unit students can explain the relationship between processes above and below the surface and how they shape Earth, and show how the evidence is adequate for their explanations. **Analyzing and Interpreting Data**: This unit **intentionally develops** this practice. Students' data analysis focuses on a new aspect of analyzing data to distinguish causal from correlational relationships in data). Throughout the unit students investigate different potential causes for changes to Earth's surface that happen below and above the surface. As students investigate this they differentiate between causation and correlation and draw on these data interpretations in their models and arguments. The following practices are also **key to the sensemaking** in the unit: ● Asking Questions and Defining Problems ● Engaging in Argument from Evidence	**ESS2.B. Plate Tectonics and Large-Scale System Interactions** **Maps of ancient land and water patterns, based on investigations of rocks and fossils, make clear how Earth's plates have moved great distances, collided, and spread apart.** Students speculate that Africa and South America were once touching. They use data from their mathematically derived time period of when they might have been touching to explain that there are patterns across continents based upon rocks, fossil, land, and water patterns from before 146 million years ago. Students then wonder if all plates were once in different places, and use the data listed to determine that Earth's land masses have moved great distances, collided, and spread apart.	determine that while we cannot see these changes from day to day, we can see these changes over larger temporal and spatial scales. Students also focus on a new aspect of stability and change when they investigate earthquakes to determine that they are sudden events that are the result of gradual changes that add up over time. The following crosscutting concept is also **key to the sensemaking** in the unit: ● Patterns

Phenomenon



Unit Question: What causes Earth's surface to change?

Driving Questions	Lesson Level Phenomena	Activity	Learning Targets
Learning Set 1 (Lessons 1-9):			
LESSON 1 4 days **What is causing Mt. Everest and other mountains to move, grow, or shrink?** Anchoring Phenomenon	 *Mount Everest and other mountains change in height and location.*	We read about how Mt. Everest is getting taller and moving yearly to the northeast. We analyze other mountain peaks around the world and find that other mountains are also getting taller, but others are shrinking. We develop an initial model explaining how mountains grow, move, and shrink. We brainstorm related phenomena, ask questions, and generate a list of data and information we need to better understand how mountain peaks can grow, shrink, and move. We figure out: • Some mountains move. • Mountains can get taller. • Mt. Everest is growing over time - new data shows. • Mountains can also shrink.		**1.A** Develop a model showing what is happening at a scale larger than we can see (patterns) to help explain what happened to the different mountains to (cause) them to change (in elevation and/or location). **1.B** Ask questions that arise from our analysis of information showing that Mt. Everest and four other mountain peaks are changing to seek additional information about what caused the changes (effects) we read about.
LESSON 2 2 days **How are earthquakes related to where mountains are located?** Investigation	 *After an earthquake occurred in Ridgecrest, California, a shift in the location and the elevation of the surface was observed.*	We look at data sources from Ridgecrest, CA before and after an earthquake. We use Seismic Explorer to determine that there seems to be a pattern with greater earthquake activity at mountains that are increasing in elevation. We figure out: • The ground moves back and forth in an earthquake. • Some parts of the surface crack open with a noticeable difference in between the ground on either side of the crack after an earthquake. • Earthquakes exist on or near almost all mountain ranges. • There seems to be a correlation between when mountains were highest or growing and where the eqs are the largest or most frequent. • While earthquakes seem to be correlated to changes in elevation, we are uncertain what is occurring under the surface, and what the land is like under the surface.		**2.A** Present an oral and written argument that earthquakes either caused or are correlated to the elevation and location changes of the mountain cases and Ridgecrest, California. **2.B** Use digital tools to examine a large data set at different spatial and temporal scales to compare global earthquake activity to local activity.

LESSON 3

2 days

How does what we find on and below Earth's surface compare in different places?

Investigation

The properties of solid rock, bedrock, change as we move deeper underground due to increasing pressure and heat.

After we figure out that earthquakes are correlated to mountain changes, we wonder what is happening underground where earthquakes occur and what we will find at and below the surface in different places around Earth. We develop models and gather data from various media and investigations about the structure and composition of materials at and below the surface. We share observations and data and update our Progress Trackers. We figure out:

- Sediment and solid rock make up Earth's surface.
- Solid rock, known as bedrock, is found on, near, or below the surface of Earth.
- As we move deeper underground, rocks become increasingly hotter and compressed.
- This can cause rocks to change state, and tend to more readily move and shift.
- The rock deep below the ocean bottom is denser than the rock deep below the continents.

3.A Develop and use models to describe the structure, composition, and temperature of materials below the surface of Earth, and some of the processes (pressure and heat) that cause changes to those earth materials.

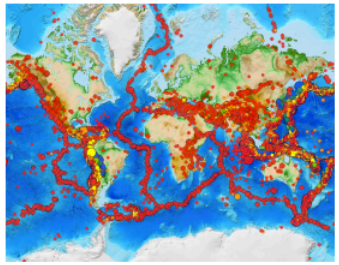
3.B Construct a scientific explanation based on evidence from text, media, and investigations to explain changes that occur to materials below the surface of Earth that are not directly observable.

LESSON 4

2 days

What is happening to Earths' surface and the material below it during an earthquake?

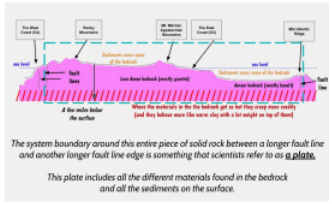
Investigation



Plates on Earth's surface are surrounded by long lines of fault lines. There are many plates that make up the surface of Earth.

We develop a profile view model of Ridgecrest. We use a foam board to model the bedrock and determine the break in the land must go all the way through the bedrock. We analyze the area of the earthquake by making a cross section in Seismic Explorer. We develop a profile model of North America. We determine that the big sections of Earth between long fault lines are plates. We look at a world map for where there could be other plates on the map. We figure out:

- Sections of bedrock in between the fault lines of cracks from earthquakes are called plates.
- These cracks go down through the bedrock to where the rock begins to creep and move.
- There are other plates in the world that can be found in between the lines of other long sections of fault lines.
- Models of the crust and mantle have scale limitations due to the size of the Earth and



The system boundary around this entire piece of solid rock between a longer fault line and another longer fault line edge is something that scientists refer to as a plate.

This plate includes all the different materials found in the bedrock and all the sediments on the surface.

4.A Develop a profile model across the North American plate to explain the changes seen in bedrock after an earthquake by showing what is found at and below the observable surface.

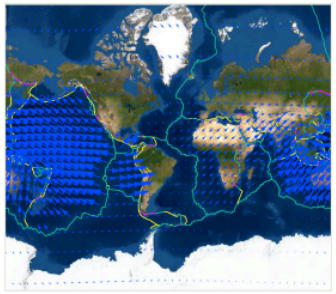
4.B Construct an explanation using qualitative evidence from class investigations to explain what is happening to the bedrock below the observable surface when an earthquake causes a shift or break in the land.

LESSON 5

1 day

How does plate movement affect the land around mountains such as Mt. Everest?

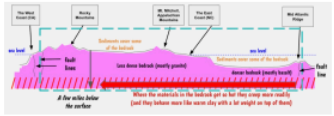
Investigation, Putting Pieces Together



Plates on Earth move at constant speeds and in specific directions.

We look for patterns in GPS data to examine land movement around Mt. Mitchell, and use a physical model to demonstrate that the entire North American plate moves at a constant speed and in a specific direction. We further revise a cross section model of the North American plate from the previous lesson to connect its movement to the behavior of the deeper, hotter bedrock. We use Seismic Explorer to investigate the movement of all plates on Earth's surface. We figure out:

- All plates are constantly moving in different directions and at different speeds.
- Plates move because they sit on top of deeper, warmer rock layers which move, or creep.
- When creep occurs, mountains and all other features on the plate above also move.



5.A Analyze a graphical display of a large data set of plate movement in order to determine whether a causal or correlational relationship exists between plate movement and mountain movement.

LESSON 6

3 days

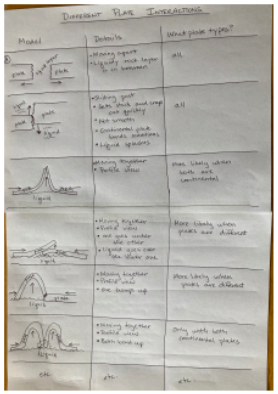
How could plate movement help us explain how Mt. Everest and other locations are changing in elevation?

Investigation, Putting Pieces Together

When plates on Earth move, they can move together, move apart or slide past each other. Sometimes one plate goes under another and/or pushes another plate up.

We use models of plates and plate movement to identify and describe in detail the results of plate interactions between plates of similar or differing densities, and develop drawn models to communicate our findings. We use the models we develop to help explain what might cause the elevation changes and other changes we know about at Mt. Everest. We consider how earthquakes could be a result of uneven plate movement. We celebrate how many questions we can now answer from the DQB. We figure out:

- When plates move towards each other, they collide and mountains can get taller.
- Plates can move next to each other in opposite directions.
- Plate boundaries or edges are rough and so when they interact they can get stuck against each other or slip against each other which we can feel as earthquakes.
- Plate movements cause earthquakes.
- Plate movements can cause mountains to get taller.



6.A. Develop and use models showing what is happening at varying spatial and time scales to describe how plates interact at plate boundaries.

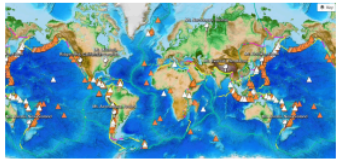
6.B. Construct an argument supporting a model of how plate interactions could cause mountains and earthquakes.

LESSON 7

1 day

What happens at mountains where we see volcanic activity?

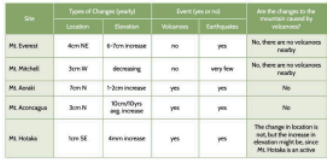
Investigation



Volcanoes occur where oceanic plates collide with continental plates. Volcanoes can either build up or destroy landforms when they erupt.

In this lesson, we use map images to determine that most volcanoes occur along the boundary between oceanic and continental plates. We observe and describe what happens when a denser oceanic plate collides with a less dense continental plate. We revisit our mountain cards from Lesson 1, and read to figure out that volcanic eruptions can either add new earth material to existing landforms or destroy them. We update our Potential Causes for Mountain Movement Chart. We figure out:

- Volcanoes occur in lines where an oceanic plate collides with a continental plate.
- When an oceanic plate collides with a continental plate, the oceanic plate moves under the continental plate.
- The oceanic plate heats up, causing the bedrock and sediments to melt and the water in the sediments to boil.
- The melted earth materials and steam move upward through openings called volcanoes in the continental plate.
- Volcanic eruptions can cause mountains to grow or shrink in height.



Site	Types of Changes (yearly)		Event (yes or no)		Are the changes to the mountain caused by volcanoes?
	Location	Elevation	Volcanoes	Earthquakes	
Mt. Everest	4cm NE	6-7cm increase	no	yes	No, there are no volcanoes nearby
Mt. Mitchell	3cm W	decreasing	no	very few	No, there are no volcanoes nearby
Mt. Aoraki	7cm N	1-2cm increase	yes	yes	No
Mt. Aconcagua	3cm N	10cm/10yrs avg. increase	yes	yes	No
Mt. Hotaka	1cm SE	4mm increase	yes	yes	The change in location is not, but the increase in elevation might be, since Mt. Hotaka is an active

7.A Apply scientific ideas and evidence to construct an explanation for the processes that cause some of the large scale interactions of Earth's plates that result in the effects (volcanoes) of those interactions.

LESSON 8

2 days

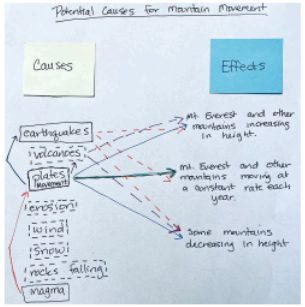
What is occurring at locations where two plates are moving away from each other?

Investigation

Steaming cracks in the ground can be found along the Mid-Atlantic Ridge in Iceland.

We make claims about what could be occurring at the Mid-Atlantic Ridge. We collect evidence to determine if the claims are supported or refuted by evidence. We use our knowledge of the ridge, volcanoes, and the presence of magma to update our Potential Causes for Mountain Movement chart. We figure out:

- Plates are moving apart along the Mid-Atlantic Ridge.
- Scientists call the place where two plates are moving apart a ridge.
- Magma from the mantle is pushing up from under the plate, which can be seen in places like volcanoes and fissures in Iceland and along ridges.
- New oceanic plate material is formed at ridges.
- Magma pushes on plates causing plates to move, which changes mountain elevation and location over time.



8.A.1 Support or refute a claim orally and in writing, based on evidence from multiple locations over a large distance along the ridge to explain what is happening where two plates are moving apart.

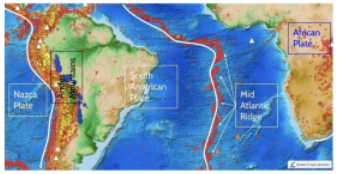
8.B Compare data and evidence from the case cards and the Mid-Atlantic Ridge to determine that volcanoes are correlated with some cases of mountain change, but not the cause of all mountains changing.

LESSON 9

1 day

What causes mountains to change?

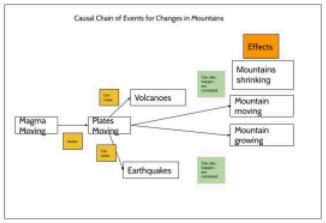
Putting Pieces Together



Mountains change due to plates moving caused by magma moving.

We revisit our Potential Causes for Mountain Movement chart to take stock of what we have figured out. We revise this chart to capture the causal chain of events that need to occur for a mountain to move or grow. We revisit the DQB to see what questions we can answer and we make predictions about what we think the Andes mountains and the Mid-Atlantic Ridge will look like in the future and what it looked like in the past. We figure out:

- Plates move because the magma underneath them is moving.
- Plate movement causes changes to mountains.



9.A Construct an explanation using representations on the Causal Chain of Events poster to explain how the causal (not correlational) events lead to a mountain changing in elevation or location.

Learning Set 2 (Lessons 10-14):

LESSON 10

1 day

Where were Africa and South America in the past?

Investigation

The distance between continents has been increasing over time.

We use math to determine that Africa and South America could have been together 146 million years ago and reason out data from this time period will be found underground. We look for patterns in mapped data across the continents from this period. We then complete an exit ticket to make a claim about the two plates touching. We figure out:

- Oceanic plates that were created over time were not always in existence.
- Average rates of plate movement and plate direction can be used to determine where plates were once located.
- Small changes to the distance between continents can add up to larger visible changes seen from a larger scale.
- Older rock and associated fossils can be found under younger rock and fossils.
- To support that two land masses were once together, patterns in data across the two land masses need to be similar or the same.
- Data from rock strata, fossils, and other changes in land supports that the African and South American continents were once together at the Mid-Atlantic Ridge.

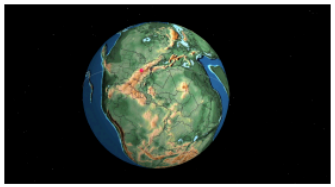
10.A Analyze maps displaying patterns of large sets of data to determine that Africa and South America could have been touching at the Mid-Atlantic Ridge (spatial relationship) between roughly 125 and 146 million years ago.

LESSON 11

2 days

Where were the other plates located in the distant past?

Investigation, Putting Pieces Together

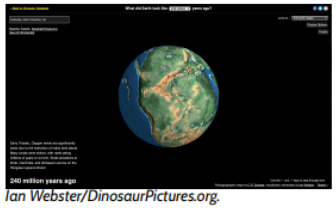
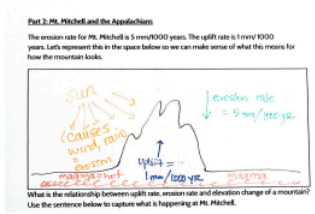


Continental plates have moved over the surface of the spherical Earth over many millions of years, resulting in their current locations on the globe.

We use multiple types of data from models of all the land masses as evidence to develop a flat map model that predicts where the land masses used to be located relative to each other millions of years ago. We identify and discuss the strengths and weaknesses of the evidence supporting our model. We diagram our model and the data that supports it, and articulate our reasoning to explain the positions of the land masses millions of years ago that are predicted by the model. We figure out:

- All major land masses were once touching, forming a part of a large single landmass that existed hundreds of millions of years ago.
- Multiple sources of data are necessary to determine where plates were located in the past.

11.A Construct an explanation of changes in the global position of land masses over time including reasoning that shows how rock strata and fossil evidence adequately supports a map of where Earth's land masses (parts of plates that were not created or destroyed as plates were moving) were located millions of years ago.

LESSON 12 1 day **Where did mountains that aren't at plate boundaries today, like the Appalachians and Urals, come from?** Putting Pieces Together, Problematizing	 *The Appalachian Mountains are decreasing in elevation, and the Ural Mountains are neither increasing nor decreasing in elevation.*	We use map images and data to compare the mountain sites we are studying. We remember that the Appalachians are decreasing in elevation, while the Urals are neither increasing nor decreasing. We know that colliding plates cause mountains to form and increase in elevation, but the Appalachians and the Urals are not located near plate boundaries. We use evidence from an online simulation to construct an explanation for how and when the Applachians and the Urals were formed. We figure out: • The Appalachian Mountains, first formed 470 million years ago, and the Ural Mountains, formed more than 300 million years ago, were both created in the same way that other mountains were formed--through plate collisions. • Plate interactions cannot explain why the Appalachians are decreasing in elevation or why the Ural Mountains are neither increasing or decreasing in elevation.	 *Ian Webster/DinosaurPictures.org.*	**12.A** Construct a scientific explanation based on evidence from a model that colliding tectonic plates caused the formation of the Appalachian Mountains and the Ural Mountains at time and spatial scales that are not observable.
LESSON 13 1 day **What causes mountains to shrink in elevation?** Problematizing	 *Scientists can measure both the rate of uplift and the rate of erosion at different mountain sites.*	After recalling what we already know about erosion and weathering, we read about erosion rates and how scientists use these rates to determine how erosion is changing the surface. Then, using both the erosion rates and uplift rates for Mt. Everest and Mt. Mitchell, we develop a representation of each model and how these two processes are affecting them. We determine that when erosion rates are higher than uplift rates, like at Mt. Mitchell, a mountain will shrink in elevation. We figure out: • The relationship between the erosion rates above the surface and the uplift rates below the surface determine the elevation above sea level. • Erosion rates greater than uplift rates result in decreases in elevation, erosion rates less than uplift rates result in increases in elevation, and erosion rates equal to uplift rates results in no elevation change.		**13.A** Apply mathematical concepts (proportional relationships and unit rates) from the unobservable processes of erosion and plate movement over time to figure out how much Mt. Everest and Mt. Mitchell are changing now and use these to predict how much they would change in the future.
LESSON 14 2 days **How is there an exposed marine fossil on Mt. Everest? And, what other remaining questions from our Driving Question Board can we now answer?** Putting Pieces Together	 *Ancient marine fossils can be found at the top of many mountains.*	We revisit our Driving Question Board and determine what questions we have made progress on. We explain our related phenomena. We revisit our mountain cards to determine that we still need to explain the presence of marine fossils on mountains. We gather evidence to help support what is occuring for marine fossils to end up on mountains and take an assessment. We then revisit our Driving Question Board and answer our unit question. We figure out that: • Plate movement has caused uplift to occur at mountains, pushing up rocks that used to exist on ancient seafloors. • Over time, marine fossils from the ancient seafloor are exposed due to erosional processes. • Erosional processes will always be occurring and will continue into the distant future.		14.A Develop and use a model to show the tectonic process of uplift can create mountains at a time scale too large to see. 14.B Construct an explanation based upon prior investigations and evidence that gradual changes have caused marine fossils to become exposed on mountains due to erosion (accumulating) over time, and those gradual changes will lead to the destruction of the marine fossils due to erosional processes over time.
Final Assessment: Lesson 14 Fossil Assessment				

Additional Resources:

- Driving Question Board
- Question Formulation Technique (QFT)

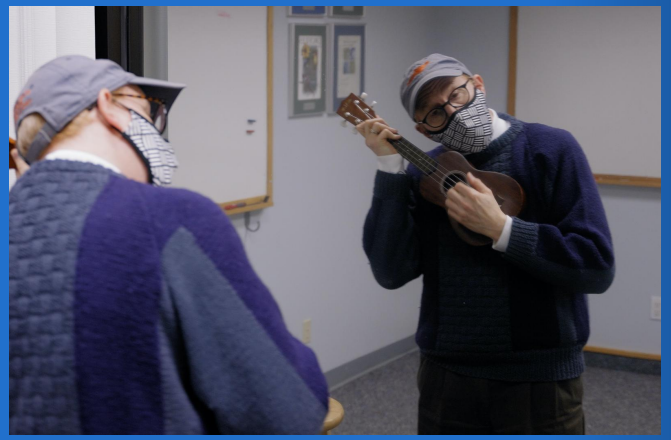
- KQL
- Talk Activities
- Summary Table
- Final Scientific Modeling
- Final Scientific Modeling
- CCC Discussion Cards
- 321 Strategy active viewing
- 60 Formative Assessment Ideas
- CER

Grade 6 Science:

Unit 1: Light and Matter

Anchoring Phenomenon

Students watch a **puzzling video** of a music student who can see his reflection in what seems to be a mirror. The student doesn't see the teacher on the other side of the mirror, but the teacher can see through it like a window.

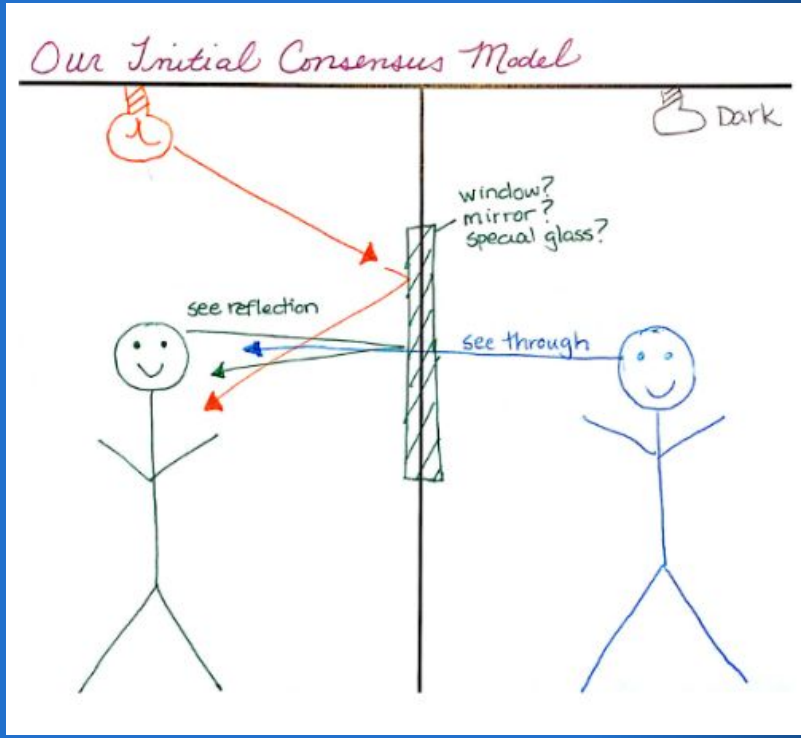


Anchoring Phenomenon

Students wonder how something can act like a mirror and window at the same time. They jump right in and investigate the system using a **box model** that represents it.

Anchoring Phenomenon

They wrap up the lesson by developing an **Initial Class Consensus Model**, brainstorming related phenomena, and developing a Driving Question Board and ideas for future investigations.



Learning Sequence

Driving question: Why do we sometimes see different things when looking at the same object?

Lesson Set 1: *Why do we sometimes see different things when looking at the same object?*

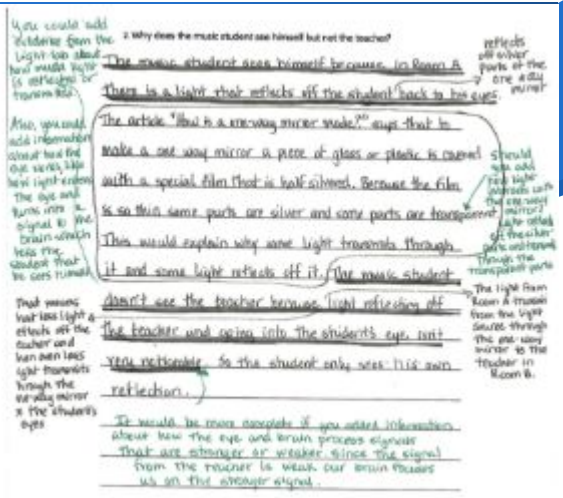
Lesson 1	Lessons 2-4	Lessons 5-6	Lessons 7-8
Students watch a video of an interesting object that acts as a mirror from one side and a window from the other side. They set up a box model to make observations and test ideas about the phenomenon.	Students investigate how changing the light affects the phenomenon, how much light is transmitted through and reflected off the one-way mirror, and how the one-way mirror is structured.	Students develop a model to explain how light interacts with the one-way mirror and then develop a more complete model to explain how the eye-brain system processes light inputs to the eye.	Students construct an explanation for the one-way mirror phenomenon and apply ideas about the one-way mirror phenomenon to explain related phenomena they experience everyday.

Unit Investigations and Tasks

Throughout the unit, students will do the following:

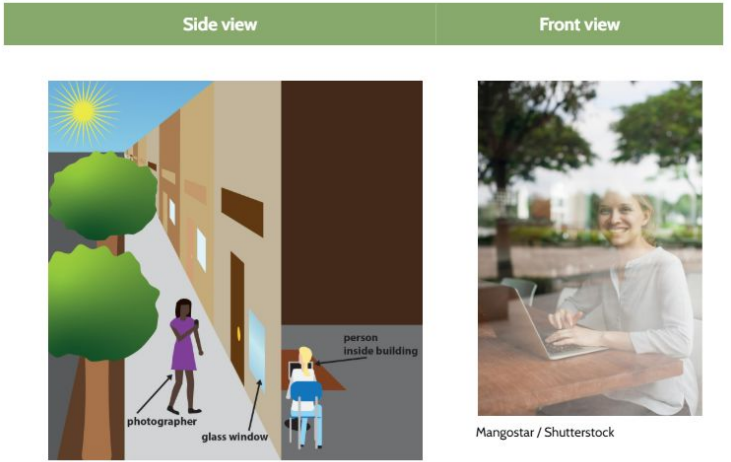
- Develop a shared set of classroom norms to guide their work together.
- Ask questions about the one-way mirror phenomenon that they investigate in the classroom by (1) manipulating light in the scaled box model, (2) measuring transmitted and reflected light off different materials, and (3) obtaining information from readings and videos.
- Agree upon and develop models to explain how light interacts with the one-way mirror, glass, regular mirrors, the eye, and the brain.
- Use a model to explain how the one-way mirror acts like a mirror on the light side of the system and acts like a window on the dark side of the system.
- Apply to an everyday phenomenon the science ideas and models developed for explaining the one-way mirror.

Assessment Highlights



Mid-Unit Assessment:
Lesson 7 Written Assessment
Final explanation

Final Assessment:
Lesson 8 Model Assessment:
Portraits Through Glass



Mangostar / Shutterstock

Grade 6 Science:

Unit 2: Thermal Energy

Anchoring Phenomenon

This unit on thermal energy transfer begins with students testing whether a new plastic cup sold by a store keeps a drink colder for longer compared to the regular plastic cup that comes free with the drink.

Staying Cool

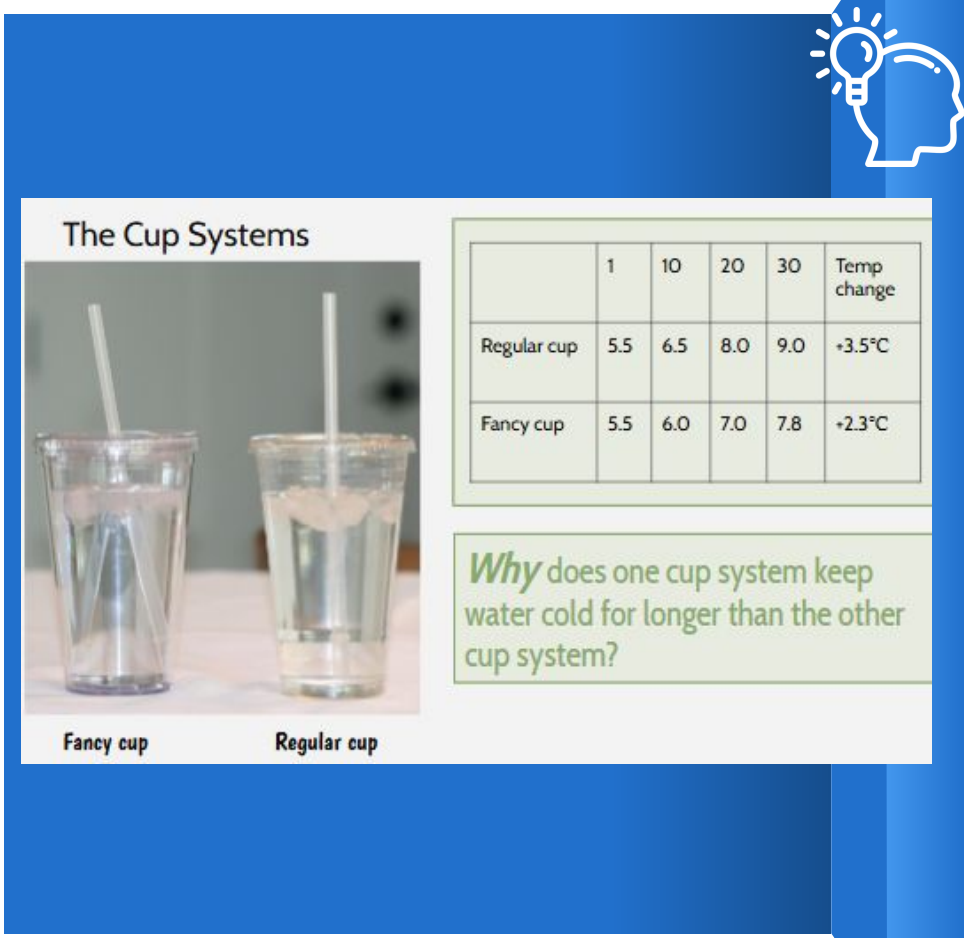
I've been buying iced drinks for years using the regular cup, but my drink always warms up and waters down. The designers of the fancy cup claim the cup can keep a drink colder for longer.

Turn and Talk

- Why does the drink in the regular cup warm up?
- How could the fancy cup keep the drink from warming up?

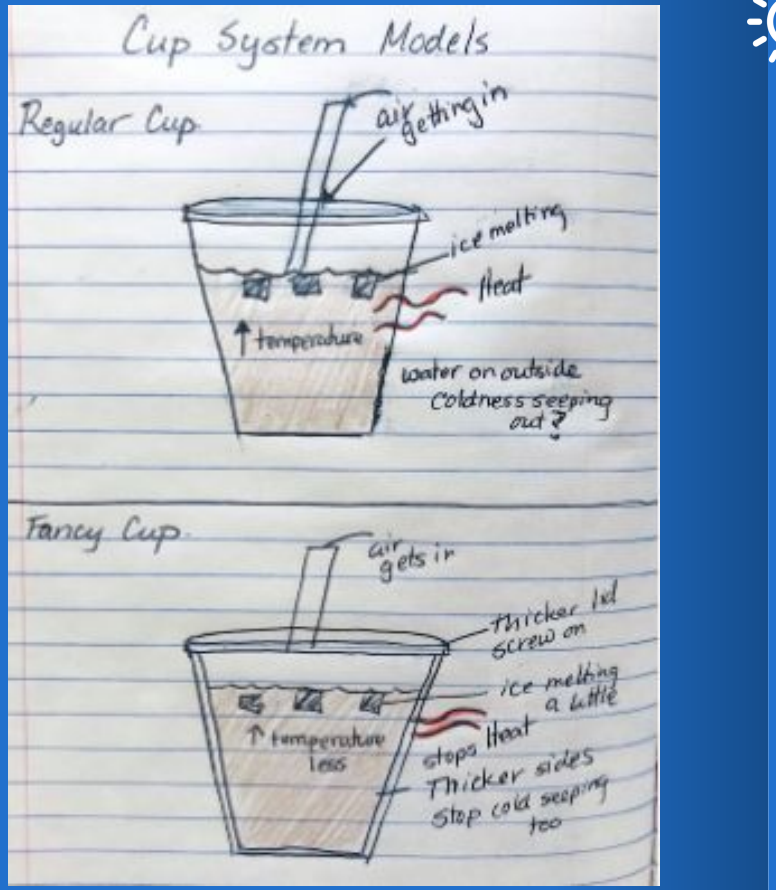
Anchoring Phenomenon

Students find that the drink in the regular cup warms up more than the drink in the special cup. This prompts students to identify features of the cups that are different, such as the lid, walls, and hole for the straw, that might explain why one drink warms up more than the other.

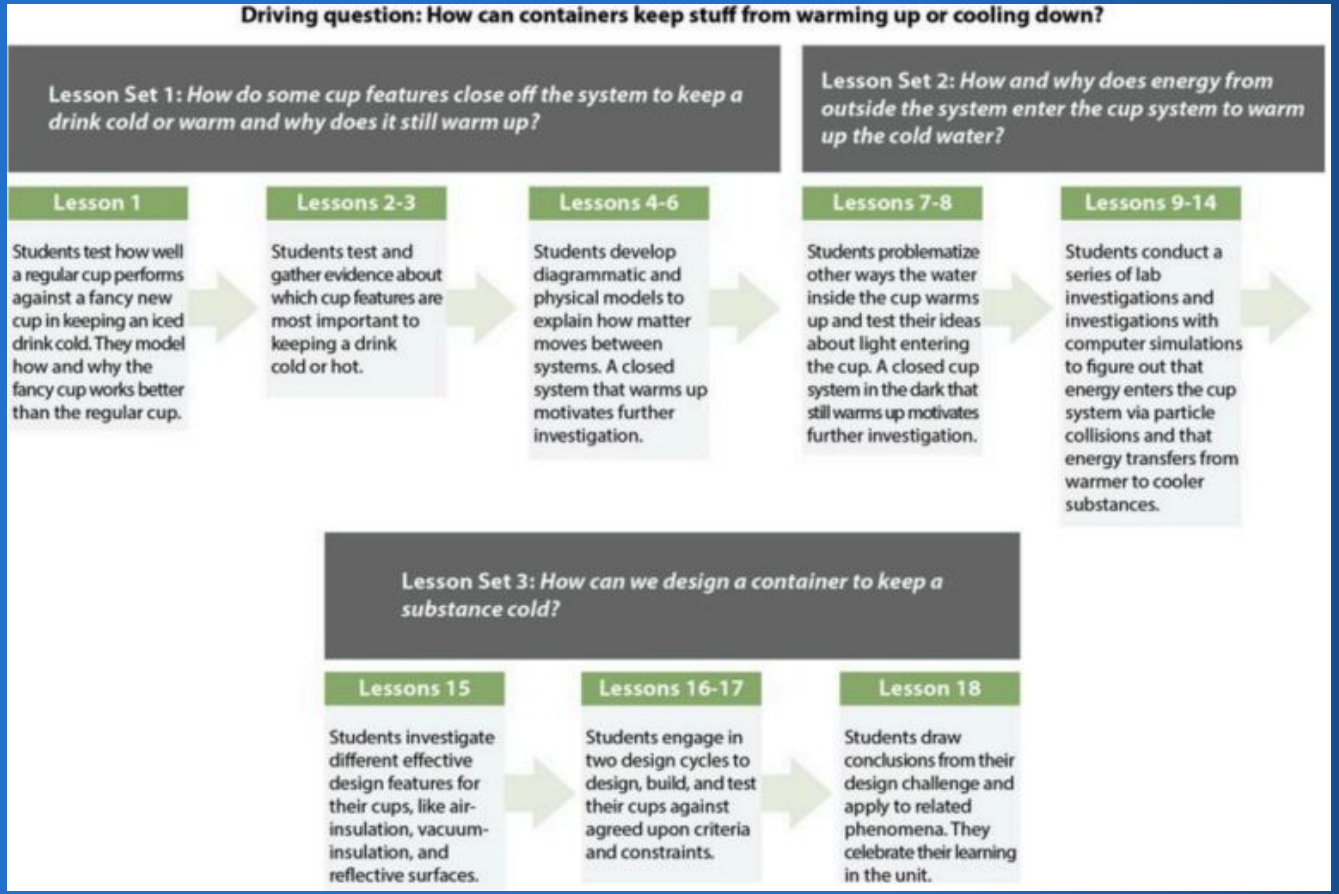


Anchoring Phenomenon

They wrap up the lesson by developing an **Initial Class Consensus Model**, brainstorming related phenomena, and developing a Driving Question Board and ideas for future investigations.



Learning Sequence



Unit Investigations and Tasks

Throughout the unit, students will do the following:

- build on what they know about the particle nature of matter from 5th grade to develop a particle model of solids, liquids, and gases that include both structure and movement of particles as it relates to the temperature of the substance.
- plan and carry out investigations to systematically test the different parts of the cup system, tracking the flow of matter and energy into or out of the cup system.
- develop a model of temperature as the average kinetic energy of a group of particles.
- model the transfer of energy from light to kinetic energy of particles when light is absorbed.

Unit Investigations and Tasks (continued)

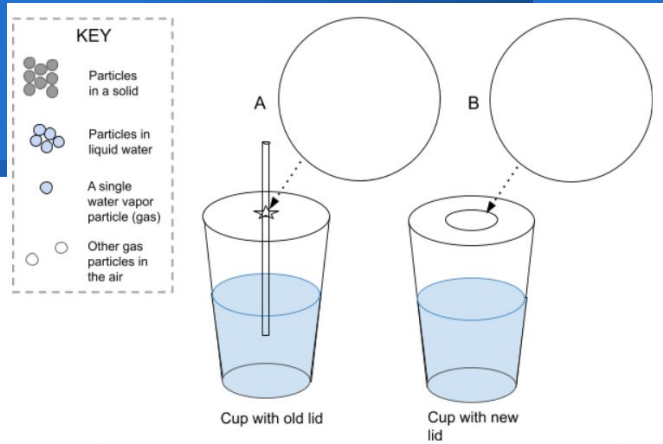
Throughout the unit, students will do the following:

- model thermal energy transfer between substances through particle collisions, or conduction, to change the average particle motion in a substance.
- revise their models to include factors that minimize energy transfer by reducing the absorption of light and decreasing the opportunities for particle collisions.
- apply what they have learned about features that can slow energy transfer to design, build, test, and revise a cup system to keep a drink cold.

Assessment Highlights

Mid-Unit Assessment:
[Lesson 6 Explaining the Effect of Different Lid Designs]

Final Assessment:
[Lesson 18 Disaster Blanket Design]



			
Blanket type	U.S. Military disaster blanket	Emergency blanket	Fleece blanket
Material description	Double layer, dense wool	Single layer, thin mylar	Single layer, fleece
Color and texture	Grey, soft	Shiny on one side, smooth	Dark grey, soft
Weight	3 pounds (lb)	0.25 pounds (lb)	1 pound (lb)

Grade 6 Science:

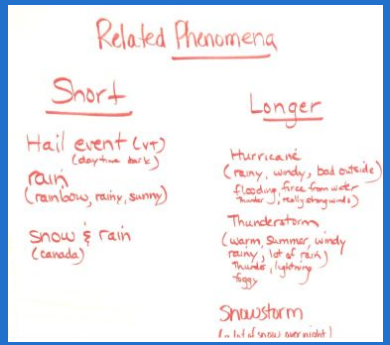
Unit 3: Weather, Climate, & Water Cycling

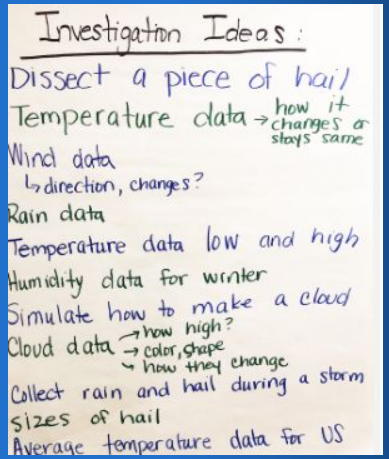
Anchoring Phenomenon

Students observe three video clips of hail falling in different areas of the United States on different days. They develop a model to try to explain what causes this to occur.

Anchoring Phenomenon

Then, they develop questions for a Driving Question Board (DQB) about the mechanisms that cause different kinds of precipitation events. They brainstorm related phenomena, possible future investigations, and sources of data that could help them figure out answers to their questions.





Learning Sequence

Driving question: Why does a lot of hail, rain, or snow fall at some times and not others?

Lesson Set 1: *What is the air outside like when this happens?*

Lesson 1
Students observe three video clips of hail falling in different places on different days.

Lessons 2-3
Students analyze weather data from locations where hail occurred and from air temperature profiles of the atmosphere.

Lessons 4-5
Students collect data on light levels, surface temperatures, and air temperature from places outside, and observe changes in air volume that result from heating and cooling the air.

Lesson 6
Students apply what they figured out in Lessons 2 through 5 to explain the movement of air in a hail cloud over time.

Lesson Set 2: *Why do some clouds produce precipitation and others don't?*

Lesson 7
Students read about what is in the air and carry out investigations to determine how the transfer of energy to different surfaces affects the humidity in the air above them.

Lessons 8-9
Students investigate how a droplet grows when air is cooled. They model particle-level interactions in a phase change and they read about what is in the clouds.

Lesson 10
Students apply what they figured out in Lessons 2 through 9 to critique a computer simulation of thunderstorms.

Lessons 11-12
Students investigate and model what causes objects to float, fall, or rise up through the air and carry out an investigation to determine the amount of lift produced from heating or cooling a fluid.

Lessons 13
Students apply what they figured out in Lessons 2 through 12 to explain (1) why some storms produce really big hail and others don't and (2) what causes a hurricane to form and grow.

Lesson Set 3: *What causes large-scale precipitation events and how can we predict them?*

Lesson 14
Students observe a video and maps from a weather forecast for a severe winter storm and argue for what ideas from lessons 2 through 13 can be used to explain this phenomena.

Lessons 15-17
Students analyze weather data maps and develop a model for how fronts form and why they can cause precipitation.

Lesson 18
Students apply what they figured out in Lessons 14 through 17 to argue for their ideas about why three other storm systems would produce certain predicted precipitation patterns in the near future.

Lesson Set 4: *Why do some places get more precipitation than others over time?*

Lessons 19-20
Students observe visualizations of annual precipitation around the globe and read about prevailing winds and ocean currents.

Lesson 21
Students analyze climate and elevation data and develop a model for how elevation and prevailing winds affect yearly precipitation amounts in a region.

Lesson 22
Students apply what they figured out over the course of the unit to explain the location of rainforests.

Unit Investigations and Tasks

Throughout the unit, students will do the following:

- Explore hailstorm videos from different locations and seasons, noting hail size, temperature, and weather conditions.
- Generate questions about how hail can form on warm days, how clouds form, and why some storms produce heavy precipitation.
- Analyze weather data and atmospheric temperature profiles related to hail events.
- Investigate how sunlight heats different surfaces and how that affects air temperature and cloud formation.
- Use models, simulations, and labs to explore phase changes of water and how molecules change state under varying conditions.

Unit Investigations and Tasks (continued)

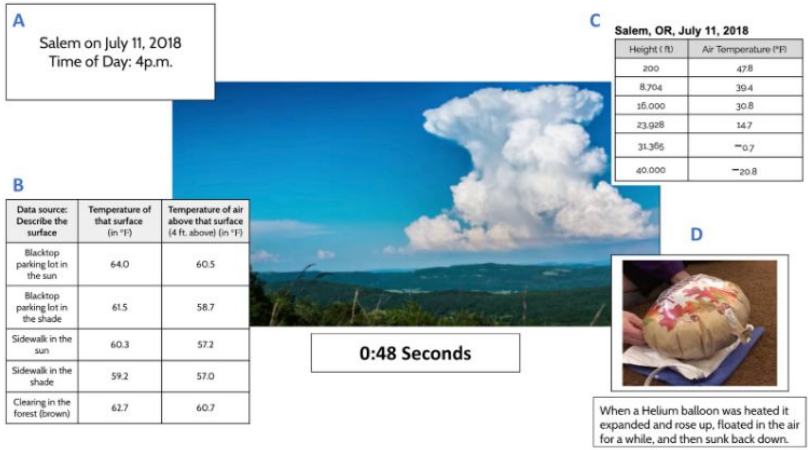
Throughout the unit, students will do the following:

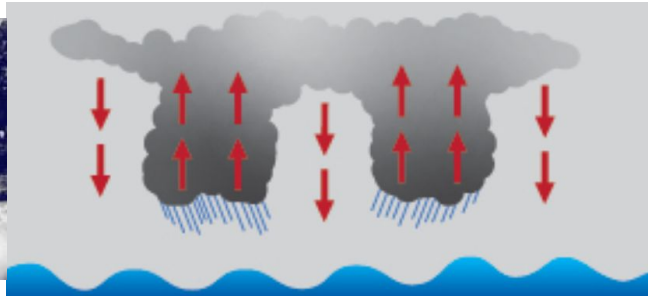
- Investigate air movement caused by heating and cooling.
- Examine a winter storm weather report showing Midwest snow and ice moving toward the Northeast.
- Analyze maps, transcripts, and videos to explore storm movement and forecast predictions.
- Track weather changes across the U.S. over several days for multiple storms.
- Investigate interactions of air masses, prevailing winds, ocean proximity, ocean currents, and elevation on precipitation patterns.
- Apply understanding to explain why South America has both tropical and temperate rainforests near some of the driest regions on Earth.

Assessment Highlights

Mid-Unit Assessment:
[Lesson 6 Explaining the Movement of Air in a Hailstorm Cloud]

Mid-Unit Assessment:
[Lesson 13 Hurricane Model Assessment]

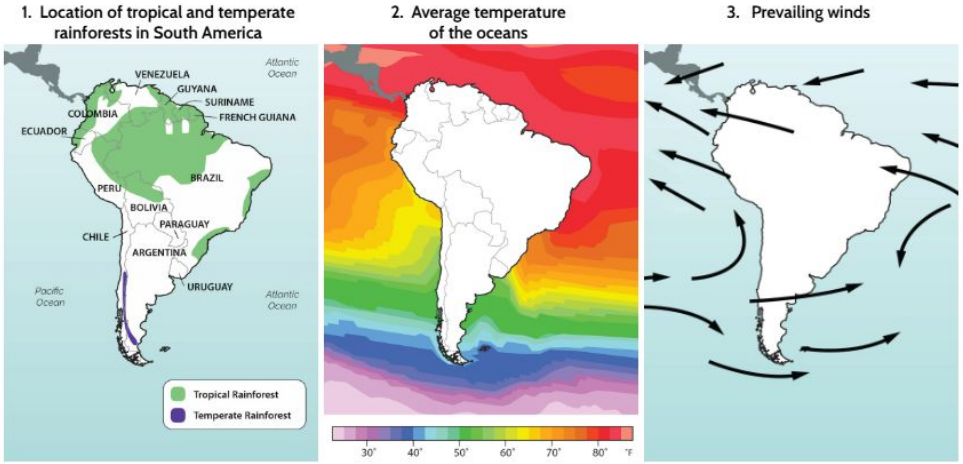


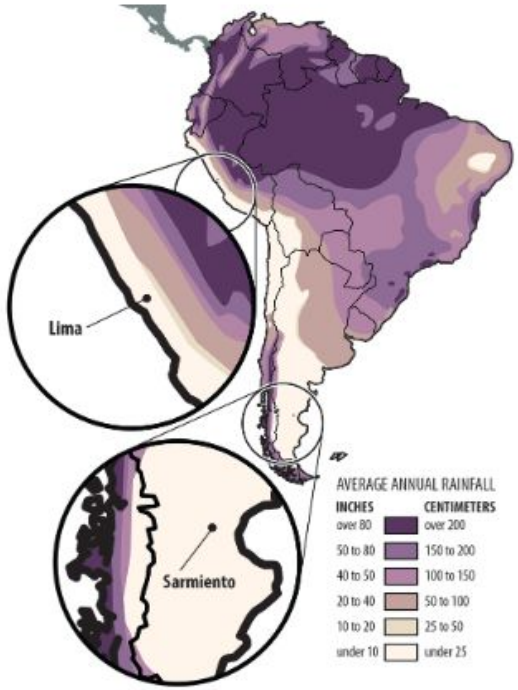


Assessment Highlights

Final Assessment:

[Lesson 22 Rainforest Climate Assessment]





Grade 6 Science:

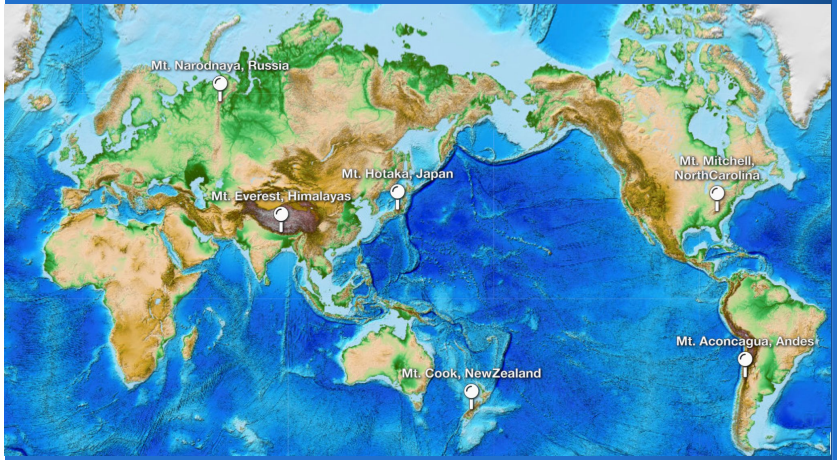
Unit 4: Plate Tectonics & Rock Cycling

Anchoring Phenomenon

Students read about how Mt. Everest is getting taller and moving to the northeast over time. They look at data of four other mountains and find out that they are also changing in elevation, with some shrinking. They model, at a scale larger than visible, what they think causes a mountain to change in elevation.

Anchoring Phenomenon

Students then brainstorm related phenomena where land near them has changed over time. This leads them to a broad set of questions that they use to form their Driving Question Board (DQB). They brainstorm possible investigations and additional data sources that could help answer their questions.



Learning Sequence

Driving question: What causes Earth's surface to change?

Lesson Set 1: *What causes mountains to grow and move?*

Lesson 1

Students read an article about scientists discovering that Mt. Everest has increased in elevation. Then they analyze data about different mountains around the world and find others are also growing and moving.

Lessons 2-9

Students investigate what could cause a mountain to form by figuring out more about Earth's surface and what is below the surface.

Lesson Set 2: *What can cause other changes to mountain elevation and location?*

Lessons 10-12

Students figure out where continents could have been and what mountains looked like in the past.

Lessons 13-14

Students investigate erosion rates and figure out that the elevation of different parts of the Earth is affected by both erosion and uplift rates. When erosion rates are higher than uplift rates, mountains can shrink. Students apply what they have figured out about how Earth's surface changes to explain how a fossil can be found exposed at the top of Mt. Everest.

Unit Investigations and Tasks

Throughout the unit, students will do the following:

- develop a model of Earth that connects movement in the mantle with movement of plates at Earth's surface and determine causal and correlational relationships between plate movement, earthquakes, volcanoes, erosion, and magma movement along with their related energy sources.
- develop a model to show how plates collide or spread apart from one another over long periods of time, forming the different landforms we see.
- analyze multiple sources of data and information (e.g., large data sets on maps, cross-section graphs, text, tables, and labs) to construct models and explanations for processes that build up and wear down Earth's surface over different timescales.
- explain how processes above the surface and below the surface work together to cause the changes seen at and below the surface.

Assessment Highlights

Final Assessment:
Lesson 14 Fossil Assessment

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 i.**

AGENDA REPORTING FORM

Agenda Topic: SHS AP Human Geography– Textbook Adoption REPLACEMENT- Second Reading.

Summary of Issue: SHS AP Human Geography– Textbook Adoption REPLACEMENT- Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: : Move that the Board of Education approve the SHS AP Human Geography– Textbook Adoption REPLACEMENT– as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Southington Public Schools
Southington, CT

TEXT BOOK ADOPTION FORM – PART A

Date: 08/07/25

1. Curriculum Committee or department submitting change: Social Studies Department (High School)
2. Grade levels and high school course(s) in which text will be used: AP Human Geography - gr. 10, 11, 12
3. Proposed Text

a.	*Title*	Human Geography for the AP Course (2nd Ed) - eText & platform
b.	*Author(s) full name(s)*	Barbara Hildebrant; Seth Dixon; Kenneth Keller; Max Lu; Roderick P. Neumann
c.	*Publisher (name and location)*	BFW Publishing Group
d.	*Copyright Date*	2025

ReviewLink: Human Geography for the AP® Course, 2nd Edition | BFW Publishers

4. Cost of recommended text: $161/year for 1 subscription
5. Amount Budgeted: $11,268 (6 year use)
6. Number of student copies to be purchased: 70/year
7. This text is (check one): **X** *A replacement for existing text* ☐ *A new text for new or revised course*
8. Rationale for selection of this text (if replacement for current text, be sure to indicate why the text needs to be replaced and the advantages of the proposed new text):

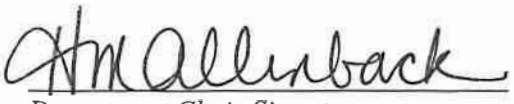
The current AP Human Geography textbook needs to be replaced for several important reasons. Most notably, recent updates to the AP Human Geography course outline are not adequately addressed in the existing text, leaving it misaligned with the current curriculum and instructional goals.

Additionally, the textbook's academic tone and complexity are more appropriate for college-level students. While this was manageable when the course was limited to Juniors and Seniors, it has become a barrier now that the majority of students enrolled are Sophomores. As a result, many students struggle to fully engage with and comprehend the material.

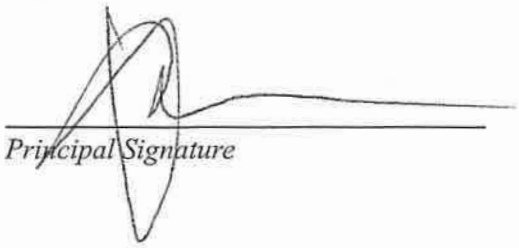
The proposed replacement is specifically designed to be more accessible to underclassmen, who now represent the bulk of AP Human Geography students nationwide. Developed with direct input from Professor Seth Dixon—former AP Human Geography Chief Reader—the new text is closely aligned with the revised course framework and exam expectations. The text is provided through BFW's Achieve platform, offering a more effective learning experience than the current textbook's platform.

Department or Committee Members: Heather Allenback (Dept Leader) & Nicholas Vargas (Teacher)

Approvals:



Department Chair Signature



Principal Signature

6161 (2)

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 j.**

AGENDA REPORTING FORM

Agenda Topic: SHS AP Government and Politics– Textbook Adoption REPLACEMENT- Second Reading.

Summary of Issue: SHS AP Government and Politics– Textbook Adoption REPLACEMENT – Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: : Move that the Board of Education approve the SHS AP Government and Politics– Textbook Adoption REPLACEMENT – as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Frank Ryan

Signature of Staff Member Submitting Report

Peter Madaras

Signature of Superintendent of Schools

Southington Public Schools
Southington, CT

TEXT BOOK ADOPTION FORM – PART A

Date: 08/07/25

1. Curriculum Committee or department submitting change: Social Studies Department (High School)

2. Grade levels and high school course(s) in which text will be used: AP Govt & Politics - gr. 11, 12

3. Proposed Text

   a. *Title* — American Government: Stories of a Nation (for the AP Course) - eText & platform
   b. *Author(s) full name(s)* — Scott Abernathy; Karen Waples
   c. *Publisher (name and location)* — BFW Publishing Group
   d. *Copyright Date* — 2025

   ReviewLink: American Government: Stories of a Nation, 2nd Edition | BFW Publishers

4. Cost of recommended text: $155/year for 1 subscription

5. Amount Budgeted: $11, 264 (6 year use)

6. Number of student copies to be purchased: 75/year

7. This text is (check one): **X** *A replacement for existing text* ☐ *A new text for new or revised course*

8. Rationale for selection of this text (if replacement for current text, be sure to indicate why the text needs to be replaced and the advantages of the proposed new text):

It is essential that academic resources stay current to the times in order to ensure that students have access to up-to-date course concepts and skills. Specific to AP United States Government and Politics, current applications of course concepts are constantly evolving and as such the materials that we provide our students must do the same. While it is unrealistic to procure a new publication each school year, it must be the practice to update materials periodically, especially when current contracts with publishers allow. At that time, it is also prudent to evaluate the materials being offered by different publishers and to adjust accordingly.
BFW Publishers is currently offering their 2nd edition of American Government: Stories of a Nation. This publication and its accompanying digital platform directly aligns itself with the AP curriculum including all required materials and supplemental resources that are essential for students to be successful in a rigorous and demanding course. Additionally, the book and digital platform provide tools that assist the teacher in developing new and innovative lessons akin to professional development training as well as provide students with accessibility options. Procuring these resources will enhance the student and teacher alike.

Department or Committee Members: Heather Allenback (Dept Leader) & Evan Tuttle (teacher)

Approvals:

HMallenback

Department Chair Signature

Principal Signature

6161 (2)

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 9 k.

AGENDA REPORTING FORM

Agenda Topic: SHS Advanced Pottery – New Course Proposal- Second Reading.

Summary of Issue: SHS Advanced Pottery – New Course Proposal- Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the SHS Advanced Pottery – New Course Proposal– as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Southington Public Schools
Southington, Connecticut

School: **Southington High School**

Department: **Art**

Please check appropriate item:

New Course: **X**

Revised Course: ☐

Course Title: **Advanced Pottery**

1) Proposed Change – Please give a brief description of the proposed new course or revision to the existing course.

New Course Description:

- ½ year course at the accelerated level
- ½ credit
- Course will be offered in grades 10, 11 & 12
- Major course components: Advanced Hand Building Techniques, Extensive Wheel Throwing, Slip Casting, Slump Molds and Glazing & Decorative Techniques
- Maximum of 22 students per section
- Staffing: 1 Existing Certified Art Teacher

Goal:

To offer a pottery curriculum that continues to build on the skills students gain in the introductory Pottery course. The primary focus is to give students the opportunity to learn advanced pottery techniques and give them an avenue to pursue a concentrated period of artistic creation of three-dimensional forms with clay.

Advanced Hand Building Techniques

In this course component, students will review the core hand building techniques of slab, pinch and coil. From there, they will be introduced to variations of each of those techniques to expand their technical skills. Students will also be introduced to hollowing out solid construction and combining all techniques to support large construction . Lessons will encourage students to develop their creative expression through an extended body of work.

Slip Casting & Slump Molds

In this course component students will be introduced to creating clay forms with molds. One method is slip casting. Students will learn how to prepare slip and make their own single piece casting molds. Students will create slip casted pottery forms using their own single molds as well as more complex forms using two piece casting molds. In addition to slip casting molds students will also be introduced to slump and hump molding techniques using forms they have created or found as their base molds. With each new clay technique introduced students will continue to expand their body of work.

Extensive Wheel Throwing

In this course component, students will review the core wheel throwing skills of centering, opening, pulling up,

shaping and trimming. Then they will be introduced to additional techniques such as altered forms, enclosed forms and stacking forms. These lessons will encourage students to create larger vessels and sculptures while continuing to develop their artistic style and building onto their body of work.

Glazing & Decorative Techniques
In this course component, students will be introduced to creating their own stamps for pattern making, use slip for decorative texture, create color slip for enhancing their pottery designs, learn sgraffito and resist techniques. In addition students will research varied glazing and non-glazing decorative techniques and incorporate both glaze and non-glaze techniques that they have researched and experimented with into their body of work.

2) Rationale – What is the purpose of the proposed new course or course change? To what extent will it benefit the students?

Background Information:
Currently and consistently we have a high number of students interested in and taking our first level Pottery course. The overall enrollment for Pottery & Crafts as a full year course in the 2023-2024 school year was 75 in 3 sections. Currently, this school year and as a half year course, we have 103 students in 5 sections. It is a little hard to compare data based on the change from a half year course to a full year however, the ongoing projected numbers for the next school year continues to be consistent with trends in how the numbers fluctuate from year to year.

The Need:
This new course would provide another option for students with an interest and/or a strong background in 3 dimensional design artworks. A great option. The course content/curriculum, materials, timing, teaching and learning would all focus on continued and advanced exploration in functional and sculptural clay building techniques, finishes and methods. **Students have repeatedly expressed a desire for continuation in this great medium of study. Additionally, this new course will create a more sound and complete path toward entering the AP Studio Art class and taking the AP Studio Art 3D Design exam.**

Reinforcement:
As per the 6 C's Rubrics and our "Vision of a Graduate", this new course heavily addresses teaching and learning to reinforce that students will be "college or career ready and prepared for life beyond by mastering the knowledge and demonstrating the skills to communicate effectively, think creatively and critically, and contribute to the global community." This will be clearly evident through full class and small group collaborative models of creating projects in addition to individual exploration. Students will have to collaborate in order to complete certain projects successfully; show leadership & initiative, cooperate, be flexible, be responsible and productive. Effective communication between all students will be highly desired. Having conversation and engaging in artistic criticism that crosses boundaries of understanding from one student to another will be practiced daily. Students will be expected to ask questions of each other, listen, and share ideas. As always, creativity is our hallmark. Students will individually, with a partner and as a class, generate ideas, explore, carry out projects and refine their work. Methods of critical thinking will be encouraged and practiced. Having the ability to seek out clarity, interpret, analyze, reason and resolve creative problems combined with understanding how one interacts with artwork will be a great challenge to explore.

3) Target Population – Which group of students will be directly affected (grade level, academic level)?

All students who have successfully completed the general and first level Pottery course with a 70 grade average or above. These students will be in the 10th-12th grades.

PROPOSED COURSE/PROGRAM CHANGE FORM

4) Evaluation – How do you plan to assess the implementation of the proposed new course or the course change?

Evaluating the implementation of this course will be a constant reflective process with regular editing and updating. The population of students, their specific artistic needs and levels will be ever changing and need to be adapted to. Flexibility will be inevitable. Curriculum and instruction in this course will be fluid based on the unique needs of the learners.

5) Cost – What are the anticipated costs for staff, textbooks, materials, other?

Staffing - This course will be carried out with the existing art teachers.

Textbooks are not needed for this new course.

Materials will continue to be fulfilled within our current and future department budget.

Other/Technology Pottery Wheels

	YEAR		
	I	**II**	**III**
Staff	$	$	$
Textbooks	$0.0	$0.0	$0.0
Materials	$0.0	$0.0	$0.0
Other (Addition of a pottery wheel each of the first 3 years)	$1800.00	$1800.00	$1800.00
TOTAL	$1800.00	$1800.00	$1800.00

Comments:

It is necessary to replace and increase the number of pottery wheels for both the current Pottery course and the proposed new Advanced Pottery course. They have not been replaced or upgraded in at least 24 years. Likely, the current pottery wheels were obtained when the Art wing was added to Southington High School in 1988. We currently have 4 fully working pottery wheels that are rotated through a class size of up to 22 students. The course(s) could run without this additional equipment however, the quality of course content would be affected.

Principal: Approved ☑ Denied ☐

Signature

Advanced Pottery

SHS - Art Department
Half Year Course
Prerequisite Pottery

Unit 1 : Advanced Hand Building Techniques

Unit Overview:

- Review the core hand building techniques of slab, pinch and coil
- Introduction to sculpting and Kurinuki (the hollowing out of a solid clay form)
- Student will begin to formulate an artist statement to guide their creation of pottery work for the course.
- Students will combine all techniques to create a large complex functional or sculptural clay structure that is guided by their artist statement.

Essential Question Highlights:

- How do artists and designers learn from trial and error?
- What role does persistence play in revising, refining, and developing work?
- How does collaboratively reflecting on a work help us experience it more completely?

Unit 1 : Performance Task

- **Goal:** Utilize the pinch, slab, coil & hollowed forms hand techniques to create a functional or sculptural artwork.
- **Role:** Creator/Artist
- **Audience:** Teachers, Peers, Family and School Community
- **Situation:** Student is creating a large body of 3-D work using mediums common to pottery. One of the artwork pieces in the final portfolio needs to be a student directed project that utilizes the hand building techniques of pinch, slab, coil & hollowed forms
- **Product/Performance/Purpose:** Sculptural or functional clay form
- **Standards and Criteria for Success:** The art student will utilize pinch, slab, coil and Kurinuki techniques to construct a clay creation for the purpose of sculptural display or functional use. The criteria for success will be based on creativity of concept, use of material, skill in executing techniques, functionality if applicable, the ability to reflect on and then refine the work in progress and to reflect on and display work at completion.

Unit 2 : Slip Casting & Slump Molds

Unit Overview:

- Introduction to creating clay forms using slip casting molds
  - Students will make their own single piece casting molds.
  - Students will create slip casted pottery forms using their own single molds.
- Introduction to creating forms using slump and hump molds
  - Students will create forms or use found objects as their base molds.
  - Students will use their molds to create a functional or sculptural clay structure.
- Students will use the cast and/or slump mold techniques alone or in conjunction with other techniques to create clay works that continue to add to their body of work based on their living artist statement.

Essential Question Highlights:

- How do artists and designers learn from trial and error?
- How do life experiences influence the way you relate to art?
- How does one determine criteria to evaluate a work of art?

Unit 2 : Performance Task

- **Goal:** Utilize slip casting, slump or hump molds to create a functional or sculptural artwork as part of a larger body of work.
- **Role:** Creator/Artist
- **Audience:** Teachers, Peers, Family and School Community
- **Situation:** Student is creating a large body of 3-D work using mediums common to pottery. One of the artwork pieces in final portfolio needs to be a student directed clay project created by utilizing the techniques of slip casting and/or slump or hump mold method.
- **Product/Performance/Purpose:** Sculptural or functional clay form
- **Standards and Criteria for Success:** The art student will utilize slip casting, slump or hump mold techniques to construct a clay creation for the purpose of sculptural display or functional use. The criteria for success will be based on creativity of concept, use of material, skill in executing techniques, functionality if applicable, the ability to reflect on and then refine the work in progress and to reflect on and display work at completion.

Unit 3 : Extensive Wheel Throwing

Unit Overview:

- Review the core wheel throwing skills of centering , opening , pulling up, shaping and trimming
    - Students will advance their skills by creating multiple forms for process not product.
- Introduction to the additional wheel throwing techniques of altered forms, enclosed forms and stacking forms.
    - Student will combine multiple thrown vessels to create a complex functional or sculptural clay structure that is tied to their living artist statement.

Essential Question Highlights:

- How do artists and designers learn from trial and error?
- What factors prevent or encourage people to take creative risks?
- How does knowing the contexts histories, and traditions of art forms help us create works of art and design?

Unit 3 : Performance Task

- **Goal:** Utilize wheel throwing techniques of altered forms, enclosed forms and stacking forms to create a functional or sculptural artwork.
- **Role:** Creator/Artist
- **Audience:** Teachers, Peers, Family and School Community
- **Situation:** Student is creating a large body of 3-D work using mediums common to pottery. One of the pieces in the final portfolio needs to be a student directed artwork created completely or partial through the use of the mechanical tool of a pottery wheel .
- **Product/Performance/Purpose:** Sculptural or functional clay form
- **Standards and Criteria for Success:** The art student will utilize the pottery wheel to construct a clay creation for the purpose of sculptural display or functional use. The criteria for success will be based on creativity of concept, use of material, skill in executing techniques, functionality if applicable, the ability to reflect on and then refine the work in progress and to reflect on and display work at completion.

Unit 4 : Glazing and Decorative Techniques

Unit Overview:

- Review of the underglaze and gloss glaze traditional uses
    - Introduction to sgraffito (glazing and carving) and resist techniques that are done with the traditional underglaze and gloss glazes.
- Introduction to creating stamps and colored slip to be used for the creation of decorative texture on the finished pottery form.
- Students will research varied glazing and non-glazing decorative techniques and incorporate both glaze and non-glaze techniques that they have researched and experimented with into their body of work.

Essential Question Highlights:

- How do artists and designers learn from trial and error?
- How does knowing and using visual art vocabularies help us understand and interpret works of art?
- What methods and processes are considered when preparing artwork for presentation or preservation?

Unit 4 : Performance Task

- **Goal:** Utilize a variety of glazing techniques that could include stamping, colored slip, sgraffito, resist or informed experimentation to add functional and aesthetic quality to the final clay forms.
- **Role:** Creator/Artist
- **Audience:** Teachers, Peers, Family and School Community
- **Situation:** Student is creating a large body of 3-D work using mediums common to pottery. All of the artwork pieces in final portfolio need to be completed with a glazing technique and multiple techniques need to present when viewing the final body of work as a whole.
- **Product/Performance/Purpose:** Sculptural or functional clay form sealed and visually altered through the use of decorative technique.
- **Standards and Criteria for Success:** The art student will utilize glazing and decorative techniques for the purpose of adding interest to a sculptural or functional clay form. The criteria for success will be based on creativity of concept, use of material, skill in executing techniques, functionality if applicable, the ability to reflect on and then refine the work in progress and to reflect on and display work at completion.

Advanced Pottery

SHS - Art Department
Half Year Course
Prerequisite Pottery

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 l.**

AGENDA REPORTING FORM

Agenda Topic: SHS Emergency Medical Technician– New Course Proposal- Second Reading.

Summary of Issue: SHS Emergency Medical Technician– New Course Proposal- Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the SHS Emergency Medical Technician– New Course Proposal– as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Frank Ryan
Signature of Staff Member Submitting Report

Peter Madaras
Signature of Superintendent of Schools

Course & Instructor Information

Training Center Supervisor

Justin Fortin, M.Ed., NRP, EMS-I
Education & Training Supervisor
Hunter's Ambulance Service
Justin.Fortin@hhchealth.org
203 514 5133 Office
203 886 8652 Cellphone

Associate Instructors

Emily Derynoski, BS, NREMT, EMS-I
Emily.derynoski@hhchealth.org
203 514 5133

Christopher Ryan, NREMT, EMS-I
Christopher.Ryan@hhchealth.org
203 514 5158

Christopher Beaulieu, NREMT, EMS-I
Christopher.beaulieu@hhchealth.org
203 514 5146

Tom Levy, EMT-P, EMS-I
Thomas.levy@hhchealth.org
203 514 5133

Ron Talit, EMT-P, EMS-I
Ron.talit@hhchealth.org

Lisa Clark, NREMT, EMS-I
Lisa.Clark2@hhchealth.org
203 514 5181

Craig Sassu, NRP, EMS-I
craig.suassu@hhchealth.org

Hartford HealthCare
Emergency Medical Services Network

HUNTER'S AMBULANCE

Emergency Medical Technician

Hunter's Ambulance Syllabus

Southington High School

Course Description and Purpose

This course prepares students for certification as an emergency medical technician (EMT), utilizing basic knowledge and skills necessary to stabilize and safely transport patients ranging from non-emergency and routine medical transports to life threatening emergencies. Students will learn the knowledge and skills necessary to provide out of hospital emergency medical care and transportation for critical and emergent patients who access the emergency medical services (EMS) system. Various ways EMTs function as part of a comprehensive EMS response system, under medical oversight, will be covered. Students will learn to perform interventions with the basic equipment typically found in an ambulance. The critical link between the scene of an emergency and the health care system will be emphasized.

The EMT program is based upon the U.S. Department of Transportation curriculum and will prepare the student to function in the following areas:

- Controlling life threatening situations, including maintaining an open airway, providing artificial ventilation, operating an AED, controlling severe bleeding, administering certain medications, and treating for shock.
- Stabilizing non-life-threatening situations, including dressing and bandaging wounds, splinting injured extremities, delivering, and caring for infants, and dealing with psychological stress of dealing with patients, their family members, neighbors, and colleagues.
- Using non-medical skills, such as driving, maintaining supplies and equipment, using good communication skills, keeping good records, knowing proper extrication techniques, and coping with related legal issues.

THE EMT CODE OF ETHICS

Professional status as an Emergency Medical Technician and Emergency Medical Technician-Paramedic is maintained and enriched by the willingness of the individual practitioner to accept and fulfill obligations to society, and other medical professionals, and the profession of Emergency Medical Technician, I solely pledge myself to the following code of professional ethics:

A fundamental responsibility of the Emergency Medical Technician is to conserve life, to alleviate suffering, to promote health, to do no harm, and to encourage the quality and equal availability of emergency medical care.

The Emergency Medical Technician provides services based on human need, with respect for human dignity, unrestricted by consideration of nationality, race creed, color or status.

The Emergency Medical Technician does not use professional knowledge in any enterprise detrimental to the public wellbeing.

The Emergency Medical Technician respects and holds in confidence all information of a confidential nature obtained in the course of professional work, unless required by law to divulge such information.

The Emergency Medical Technician, as a citizen, understands and upholds the law and performs the duties of citizenship as a professional.

The Emergency Medical Technician has the never-ending responsibility to work with concerned citizens and other health care professionals in promoting a high standard of emergency medical care to all people.

The Emergency Medical Technician shall maintain professional competence and demonstrate concern for the competence of other members of the Emergency Medical Services health care team.

An Emergency Medical Technician assumes responsibility for individual professional actions and judgment both in dependent and independent emergency functions and knows and upholds the laws which affect the practice of the Emergency Medical Technician.

An Emergency Technician has the responsibility to be aware of and participate in matters of legislation affecting the Emergency Medical Technician and the Emergency Medical Services System.

The Emergency Medical Technician adheres to standards of personal ethics which reflect credit upon the profession.

Emergency Medical Technicians, or groups of Emergency Medical Technicians, who advertise professional services, do so in conformity with the dignity of the profession.

The Emergency Medical Technician has an obligation to protect the public by not delegating to a person less qualified any service which requires the professional competence of an Emergency Technician.

The Emergency Medical Technician will work harmoniously with and sustain confidence in Emergency Medical Technician Associates, the nurse, the physician and other members of the Emergency Medical Service Health Care Team.

The Emergency Medical Technician refuses to participate in unethical procedures and assumes the responsibility to expose incompetence or unethical conduct of others to the appropriate authority in a proper and professional manner.

The National Association of Emergency Medical Technicians

Course Communications
Course information such as emergent schedule changes and emergent cancellations will be done through email and/or phone.

Class Hours:

Ride Time and Clinical Time will vary according to availability of faculty

Required Course Material (Provided as part of tuition)

Jones and Bartlett [ISBN: 9781284243796]
Emergency Care and Transportation of the Sick and Injured – 12th Edition
ADVANTAGE ACCESS – for online access to study tools and homework
American Academy of Orthopedic Surgeons (AAOS)

American Heart Association [ISBN: 9781616697686]
BLS Provider Manual
American Heart Association

Course Activities

Course Learning Activities & Assessments

You will have multiple opportunities to practice and demonstrate your progress toward the above student learning outcomes in this course. These include but are not limited to: group projects, at home assignments, reading and taking notes, short clips to explain processes, presentations from experts in the field etc.

Student Learning Objectives/Outcomes

Learning Objectives/Outcomes
1. Apply scientific knowledge in providing prehospital and emergency medical care
2. Use effective communication and interpersonal skills with patients and other health care workers
3. Operate within the roles of an entry level provider of care and contributor to the EMT profession
4. Demonstrate and foster high standards of Prehospital and Emergency Medical practice in skill performance and patient advocacy
5. Provide competent and safe care in a variety of settings to a group of patients with diverse needs across the life span by demonstrating knowledgeable decision making and judgment based on critical thinking, clinical competence, accountability and collaboration with the patient and health care team
6. To promote the personal and professional growth, health and success of each student
7. To promote the concept of lifelong learning, including the pursuit of advanced degrees and advanced practice in the health field
8. To prepare graduates who are eligible to seek licensure as EMTs and that meet the expectations of the EMS Community

Emergency Department Observation

Each student (18 years or older) is required to complete 8 hours of clinical observation time at the Hospital of Central Connecticut (HOCC) or Midstate Medical Center (MMC).

Students will be paired with an RN for their shift and the student is there to shadow the RN and take notes on each patient they encounter.

All students need to submit documentation on patients prior to the end of the course. If the student is unable to have patient encounters during their observation time, they may opt for a second shift in the ED or they will need to make up the remaining patient contacts during in class scenarios.

Uniform

The required uniform for ED observation is business/business casual attire. For example: Khakis, polo shirt, and sneakers.

EMS Observation Time

Each student is required to complete 8 hours of clinical observation time Hunter's Ambulance.

Students will be paired with an EMS Crew for their shift and the student is there to shadow and take notes on each patient they encounter.

Uniform

The required uniform for EMS observation is business/business casual attire. For example: Khakis, polo shirt, and sneakers.

**The decision of the Course Coordinator, Instructor, Filed Training Officer or Hospital Staff as to the appropriateness of the employees' dress and that decision is final. Employees will be required to remove or cover any offensive clothing and may be dismissed from that class or sent home from their clinical rotation. Employees who violate the class dress code must meet with the Course Coordinator AND Clinical Coordinator before they are allowed to return to class. These subsequent absences will be considered unexcused.*

Affective Domain

The affective domain is one of the three domains in Bloom's Taxonomy. It involves feelings, attitudes, and emotions. It includes the ways in which people deal with external and internal phenomenon emotionally, such as values, enthusiasms, and motivations.

During the first night of class, all students will work together to create an affective domain for the class. This will include several aspects of their behavior while in class and at clinical observation time. (Ex. Professionalism, responsibility, leadership)

It is expected that all students will maintain a professional affect while in class, at clinicals or on ride time. Any student who displays a negative affective domain will receive disciplinary action up to removal from the course if the circumstance warrants.

Final Grades

Assignment/Assessment	Percentage of Grade
Homework/Assignments	20 %
Quizzes	20 %
Midterm	20 %
Final Practical Exams	20 %
Final Written Exam	20 %
Total	**100%**

This class requires a minimum of 70% to be eligible to take the NREMT exams to become a certified EMT. Please follow university guidelines for grading the class for credits.

Final Written Exam

The final written exam is a 100-question exam that is cumulative from all chapters of the book. The student must earn a minimum of a 70 on this test to pass the class.

If the student does not pass the test with a 70 or higher, they will get one chance to retake the test. The retest will be 100 different multiple-choice questions and the student must obtain a minimum of a 70 to pass this test.

If the student does not pass the retest they will be dismissed from the course.

Final Practical Exams

The final practical exams will be set up similar to the NREMT Practical Exams. Students will go through each of 5 stations:

- Patient Assessment/Management – Medical
- Patient Assessment/Management – Trauma
- BVM Ventilation of an Apneic Adult Patient
- Cardiac Arrest Management/AED
- Random Skill Station (Long bone immobilization/Joint Immobilization/Bleeding control)

Each student will need to complete each station without getting any critical fails. The minimum passing score is a 70 for all stations. A critical fail will result in a 0 and the student will have to retest.

Each student may retest until a passing grade is achieved; however, all grades will be averaged for the final grade on that station.

NREMT/CT Certification Exam

To obtain your NREMT certification and CT EMT certification you will need to complete 2 separate exams. These exams include a computer based cognitive exam and a psychomotor exam.

Cognitive Exam

The cognitive exam will be taken once the student has successfully completed the EMT program. The written exam can be taken anywhere in the United States at a Pearson Vue testing center.

Psychomotor Exam

The psychomotor exam will be taken once the student has successfully completed the EMT program. The student will need to take this exam in Connecticut at an accredited testing center.

Retesting

In the event a student fails their certification exams, they will need to go through the retesting process. This includes repaying to take each exam.

Student Expectations

Expectations for Attendance and Participation

Tardy is defined as arriving more than 15 minutes late to a class, please arrive to class on time.

Any student arriving more than 30 minutes late to class will be marked absent. (An absent result in a 0 for a grade for that day)

2 tardies = 1 absence

If you are absent more than 4 classes, you will meet with the lead instructor and/or course coordinator and may be placed on academic probation or dropped from the program.

If you are absent from class, all due dates are still to be met on time. You can complete coursework online and so this means that coursework should not be late regardless of attendance in class.

If you encounter a problem with a deadline or wish to discuss assignments, please reach out to the lead instructor so a determination can be made on extension.

Assignments

It is expected that all assignments are submitted on time.

Homework is due before the next class. Example:

> We go over Chapter 1 on Monday; Chapter 1 Homework is due on Wednesday at 9:00AM.

Late submissions will be accepted following the guidelines below:

- Submission within 24 hours of the original deadline will result in 10 points off the assignment.
- Submission 24-48 hours late will receive 25 points off the assignment.
- Any assignment submitted later than 48 hours will not receive credit

FEMA

Students are required by Federal and State mandate to complete the FEMA and National Incident Management Training Programs as prescribed by Presidential and Gubernatorial Directives.

The following courses are to be completed and submitted prior to the due date:
IS-100
IS-200
IS700
IS800
IS-5a

All required courses must be completed, and the proof of completion (certificates) placed in student file.
Failure to complete these courses by the due date on schedule will result in the inability to graduate from the program.

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Day	Date	Subject	Homework (Due before the start of the next class)
1		Meet and Greet EMS Orientation & Syllabus JBLearning Login CT Application NREMT Application	Read and Take Notes: Ch. 1
2		Chapter 1: EMS Systems	Chapter 1 Homework Read and Take Notes: Ch. 9
3		Chapter 9: A Team Approach to Healthcare	Chapter 9 Homework Read and Take Notes: Ch. 2
4		Chapter 2: Workforce Safety & Wellness Bloodborne Pathogens Airborne Pathogens	
5		Chapter 2: Workforce Safety & Wellness Personal Protective Equipment Lab	Chapter 2 Homework Read and Take Notes: Ch. 3
6		Chapter 3: Medical, Legal and Ethical Issues	Chapter 3 Homework Read and Take Notes: Ch. 4
7		Chapter 4: Communications and Documentation	Chapter 4 Homework Study for Quiz 1
8		Quiz 1: Chapters 1, 2, 3, 4 & 9 Communications Lab Patient Care Report Lab	Read and Take Notes: Ch. 5
9		Chapter 5: Medical Terminology	Chapter 5 Homework Read and Take Notes: Ch. 6
10		Chapter 6: The Human Body	
11		Chapter 6: The Human Body	Chapter 6 Homework Read and Take Notes: Ch. 10
12		Chapter 10: Patient Assessment	
13		Chapter 10: Patient Assessment	Chapter 10 Homework Read and Take Notes: Ch. 15
14		Chapter 15: Medical Overview	Chapter 15 Homework Read and Take Notes: Ch. 25
15		Chapter 25: Trauma Overview	Chapter 25 Homework Study for Quiz 2
16		Quiz 2: Chapters 5, 6, 10, 15 & 25 Patient Assessment Lab	Read and Take Notes: Ch. 38
17		Chapter 38: Transport Operations	Chapter 38 Homework Read and Take Notes: Ch. 14 Review BLS CPR Book
18		American Heart Association BLS Provider CPR	
19		American Heart Association BLS Provider CPR	Chapter 14 Homework

Hartford HealthCare
Emergency Medical Services Network

HUNTER'S AMBULANCE

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		CPR Test	Read and Take Notes: Ch. 12
Begin Field Internship (Ride Time) and Clinical Experience (ER Time)			
20		Chapter 12: Principles of Pharmacology	Chapter 12 Homework
21		BLS Medication Review Pharmacology Lab	Read and Take Notes: Ch. 11
22		Chapter 11: Airway Management Airway Management Lab	
23		Chapter 11: Airway Management Airway Management Lab	Chapter 11 Homework Read and Take Notes: Ch. 16
24		Chapter 16: Respiratory Emergencies	
25		Chapter 16: Respiratory Emergencies	Chapter 16 Homework Read and Take Notes: Ch. 17 Study for Quiz 3
26		Quiz 3: Chapters 11, 12, 14, 16 & 38 Chapter 17: Cardiovascular Emergencies	
27		Chapter 17: Cardiovascular Emergencies	Chapter 17 Homework Read and Take Notes: Ch. 18
28		Chapter 18: Neurological Emergencies	
29		Chapter 18: Neurological Emergencies	Chapter 18 Homework Read and Take Notes: Ch 19
30		Chapter 19: Gastrointestinal & Urologic Emergencies	
31		Chapter 19: Gastrointestinal & Urologic Emergencies	Chapter 19 Homework Read and Take Notes: Ch. 20
32		Chapter 20: Endocrine and Hematologic Emergencies	Chapter 20 Homework Read and Take Notes: Ch. 21
33		Chapter 21: Allergy and Anaphylaxis Epinephrine Check and Inject	Chapter 21 Homework Study for Quiz 4
34		Quiz 4: Chapters 17, 18, 19, 20 & 21 Skills Lab	
35		NREMT Skills Lab BVM Ventilations CPR and AED Medical Patient	Read and Take Notes: Ch. 23
36		Chapter 23: Behavioral Health Emergencies	Chapter 23 Homework
37		QPR Suicide Prevention Patient Restraint Lab	Read and Take Notes: Ch. 24
38		Chapter 24: Gynecologic Emergencies	Chapter 24 Homework Read and Take Notes: Ch. 34
39		Chapter 34: Obstetrics and Neonatal Care	
40		Chapter 34: Obstetrics and Neonatal Care L&D Lab	Chapter 34 Homework Read and Take Notes: Ch. 35
Child Abuse Mandated Reporter Assignment Due by class 41			
41		Chapter 35: Pediatric Emergencies	
42		Chapter 35: Pediatric Emergencies	Chapter 35 Homework Read and Take Notes: Ch. 36
Elder Abuse Mandated Reporter Assignment Due by class 43			

Hartford HealthCare
Emergency Medical Services Network

HUNTER'S AMBULANCE

Emergency Medical Technician
Hunter's Ambulance Syllabus
Southington High School

43		Chapter 36: Geriatric Emergencies	
44		Chapter 36: Geriatric Emergencies	Chapter 36 Homework Study for Quiz 5
45		Quiz 5: Chapters 23, 24, 34, 35 & 36 NREMT Skills Lab BVM Ventilations CPR and AED Medical Patient	Read and Take Notes: Ch. 26
46		Chapter 26: Bleeding Stop the Bleed	Chapter 26 Homework Read and Take Notes: Ch. 13
47		Chapter 13: Shock	Chapter 13 Homework Read and Take Notes: Ch. 27
48		Chapter 27: Soft Tissue Injuries	
49		Chapter 27: Soft Tissue Injuries	Chapter 27 Homework Read and Take Notes: Ch. 32
50		Chapter 32: Orthopedic Trauma	Chapter 32 Homework Read and Take Notes: Ch. 28
51		Chapter 28: Face and Neck Injuries	Chapter 28 Homework Study for Quiz 6
52		Quiz 6: Chapters 13, 26, 27, 28 & 32 NREMT Skills Lab Bleeding Control Long Bone Immobilization Joint Immobilization Trauma Patient	Read and Take Notes: Ch. 29
53		Chapter 29: Head and Spine Injuries	Chapter 29 Homework Read and Take Notes: Ch. 30
54		Chapter 30: Chest Injuries	Chapter 30 Homework Read and Take Notes: Ch. 31
55		Chapter 31: Abdominal and Genitourinary Injuries	Chapter 31 Homework Read and Take Notes: Ch. 37
56		Chapter 37: Special Patient Populations	Chapter 37 Homework Read and Take Notes: Ch. 8
57		Chapter 8: Lifting and Moving Patients Lifting and Moving Lab	Chapter 8 Homework Study for Quiz 7
58		Quiz 7: Chapters 8, 29, 30, 31 & 37 Skills Lab	Read and Take Notes: Ch. 22
59		Chapter 22: Toxicology	Chapter 22 Homework Read and Take Notes: Ch. 33
60		Chapter 33: Environmental Emergencies	Chapter 33 Homework Read and Take Notes: Ch. 39
61		Chapter 39: Vehicle Extrication and Special Rescue	Chapter 39 Homework
62		Vehicle Extrication	Read and Take Notes: Ch. 41
All FEMA Assignments Due (5, 100, 200, 700 & 800) by class 63			
63		Chapter 41: Terrorism Response and Disaster Management	Chapter 41 Homework Read and Take Notes: Ch. 40
64		Chapter 40: Incident Management	Chapter 40 Homework

Hartford HealthCare
Emergency Medical Services Network

HUNTER'S AMBULANCE

Emergency Medical Technician
Hunter's Ambulance Syllabus
Southington High School

			Study for Quiz 8
65		Quiz 8: Chapters 22, 33, 39, 40 & 41 Skills Lab	
66		MCI Drill	
All Patient Care Reports and Vital Sign Logs are due by class 67			
67		Skills Lab	
68		Skills Lab	
69		Skills Lab	
70		LEAVE OPEN (Snow Days and Schedule Changes)	
71		LEAVE OPEN (Snow Days and Schedule Changes)	
72		Final Practical Skills Evaluation	
73		Final Practical Skills Evaluation	
74		Final Practical Skills Evaluation	
75		Final Practical Skills Evaluation	
76		Final Practical Skills Evaluation	
77		Final Written Exam	
78		Final Exam Makeups	
79		Final Exam Makeups	
80		Final Exam Makeups	

Southington High School EMT Program
88 min classes

Day	Date	Subject	Homework (Due before the start of the next class)
1		Meet and Greet EMS Orientation & Syllabus JBLearning Login CT Application NREMT Application	Read and Take Notes: Ch. 1
2		Chapter 1: EMS Systems	Chapter 1 Homework Read and Take Notes: Ch. 9
3		Chapter 9: A Team Approach to Healthcare	Chapter 9 Homework Read and Take Notes: Ch. 2
4		Chapter 2: Workforce Safety & Wellness Bloodborne Pathogens Airborne Pathogens	
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10		Chapter 6: The Human Body	
11		Chapter 6: The Human Body	Chapter 6 Homework Read and Take Notes: Ch. 10
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17		Chapter 38: Transport Operations	Chapter 38 Homework Read and Take Notes: Ch. 14 Review BLS CPR Book
18		American Heart Association BLS Provider CPR	
19		American Heart Association BLS Provider CPR CPR Test	Chapter 14 Homework Read and Take Notes: Ch. 12
Begin Field Internship (Ride Time) and Clinical Experience (ER Time)			
20		Chapter 12: Principles of Pharmacology	Chapter 12 Homework
21		BLS Medication Review Pharmacology Lab	Read and Take Notes: Ch. 11
22		Chapter 11: Airway Management Airway Management Lab	
23		Chapter 11: Airway Management	Chapter 11 Homework

Southington High School EMT Program
88 min classes

		Airway Management Lab	Read and Take Notes: Ch. 16
24		Chapter 16: Respiratory Emergencies	
25		Chapter 16: Respiratory Emergencies	Chapter 16 Homework Read and Take Notes: Ch. 17 Study for Quiz 3
26		Quiz 3: Chapters 11, 12, 14, 16 & 38 Chapter 17: Cardiovascular Emergencies	
27		Chapter 17: Cardiovascular Emergencies	Chapter 17 Homework Read and Take Notes: Ch. 18
28		Chapter 18: Neurological Emergencies	
29		Chapter 18: Neurological Emergencies	Chapter 18 Homework Read and Take Notes: Ch 19
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33		Chapter 21: Allergy and Anaphylaxis Epinephrine Check and Inject	Chapter 21 Homework Study for Quiz 4
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47		Chapter 13: Shock	Chapter 13 Homework Read and Take Notes: Ch. 27
48		Chapter 27: Soft Tissue Injuries	

Southington High School EMT Program
88 min classes

49		Chapter 27: Soft Tissue Injuries	Chapter 27 Homework Read and Take Notes: Ch. 32
50		Chapter 32: Orthopedic Trauma	Chapter 32 Homework Read and Take Notes: Ch. 28
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53		Chapter 29: Head and Spine Injuries	Chapter 29 Homework Read and Take Notes: Ch. 30
54		Chapter 30: Chest Injuries	Chapter 30 Homework Read and Take Notes: Ch. 31
55		Chapter 31: Abdominal and Genitourinary Injuries	Chapter 31 Homework Read and Take Notes: Ch. 37
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75		Final Practical Skills Evaluation	
76		Final Practical Skills Evaluation	
77		Final Written Exam	
78		Final Exam Makeups	

Southington High School EMT Program
88 min classes

79		Final Exam Makeups	
80		Final Exam Makeups	

Certification Course

Lab and Skills

Quizzes and Exams

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 m.**

AGENDA REPORTING FORM

Agenda Topic: SHS Archery Unit Proposal- Second Reading.

Summary of Issue: SHS Archery Unit Proposal- Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the SHS Archery Unit Proposal– as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Frank Ryan

Signature of Staff Member Submitting Report

Peter Madaras

Signature of Superintendent of Schools

Archery in Physical Education:

Value & Meaning

Bringing Back A Beloved Activity

Summary

Archery used to be taught at SHS (2016-2017) and we want to bring it back for a variety of reasons. Archery is a safe, developmentally appropriate and fun activity that fits in perfectly with our new department Vision, Mission, and Beliefs.

Understanding Our Goal

Vision

SHS graduates are committed to the pursuit of healthy and active skills to achieve lifelong physical, intellectual, emotional and social wellness.

Mission

The SHS HPE Department will engage all students in meaningful experiences to promote the development of health enhancing behaviors through a challenging yet safe learning environment which emphasizes the importance of relationships and inspires students to seek lifelong wellness.

Beliefs

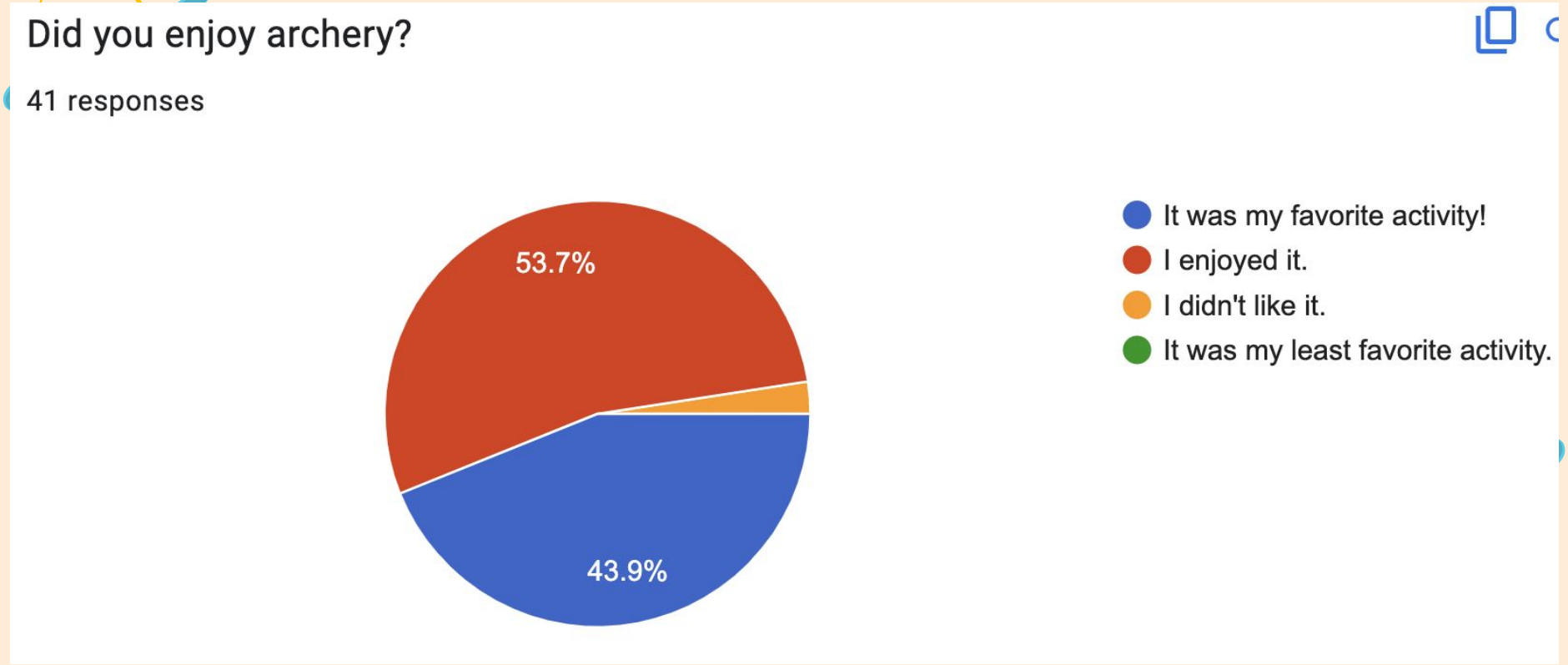
- HPE are vital components of one's educational experience
- HPE skills transfer to many aspects of life
- Movement & activity is for everyone
- Healthy living improves your Q.O.L
- Exercise is just as much for the brain as it is the body
- Being confident in your abilities as a mover now greatly increase the likelihood you will be active later in life
- Wellness is a lifelong pursuit, not a 1-time goal

?

Why Archery?

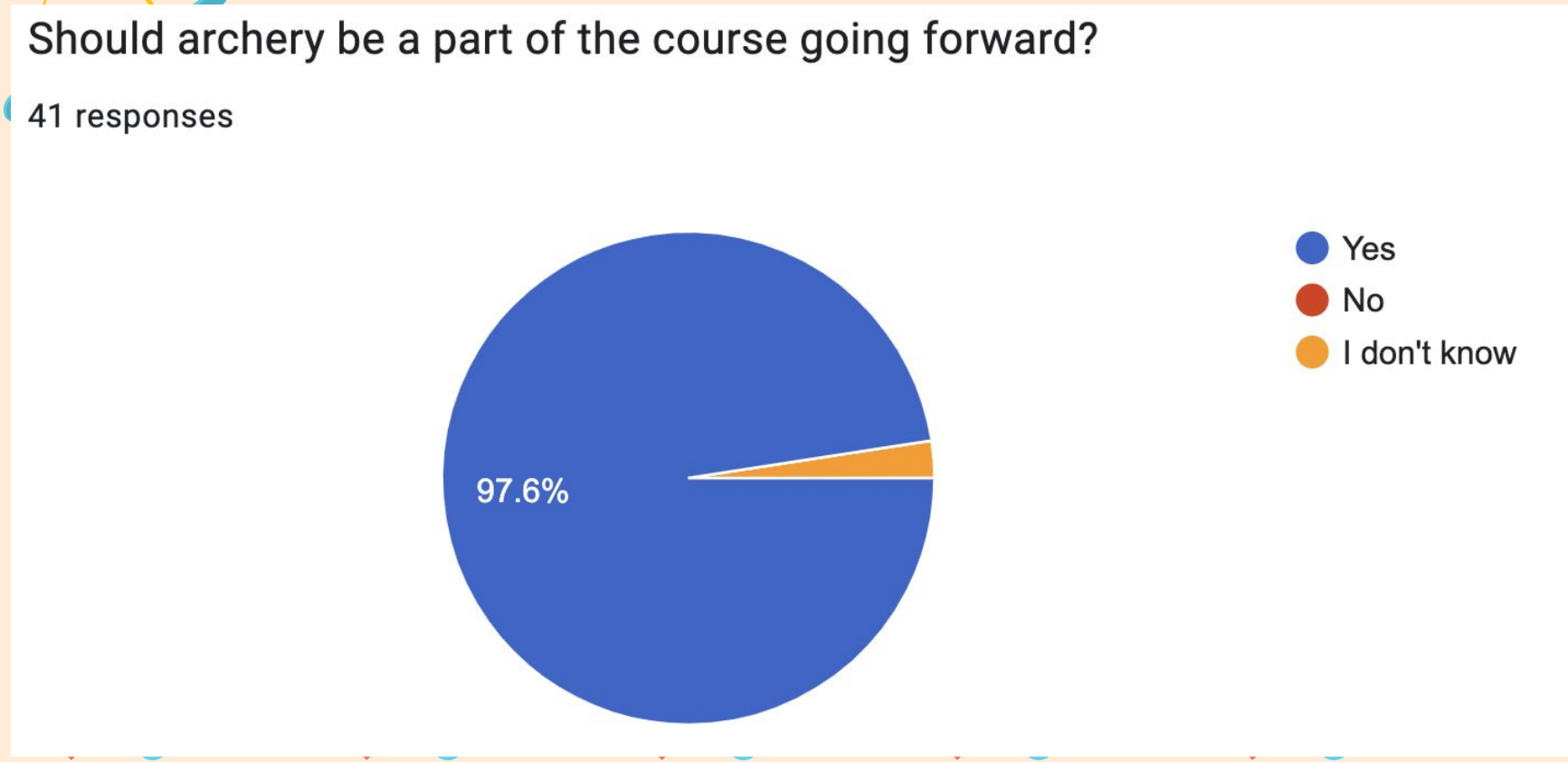
It’s All About The Students

What about other students?

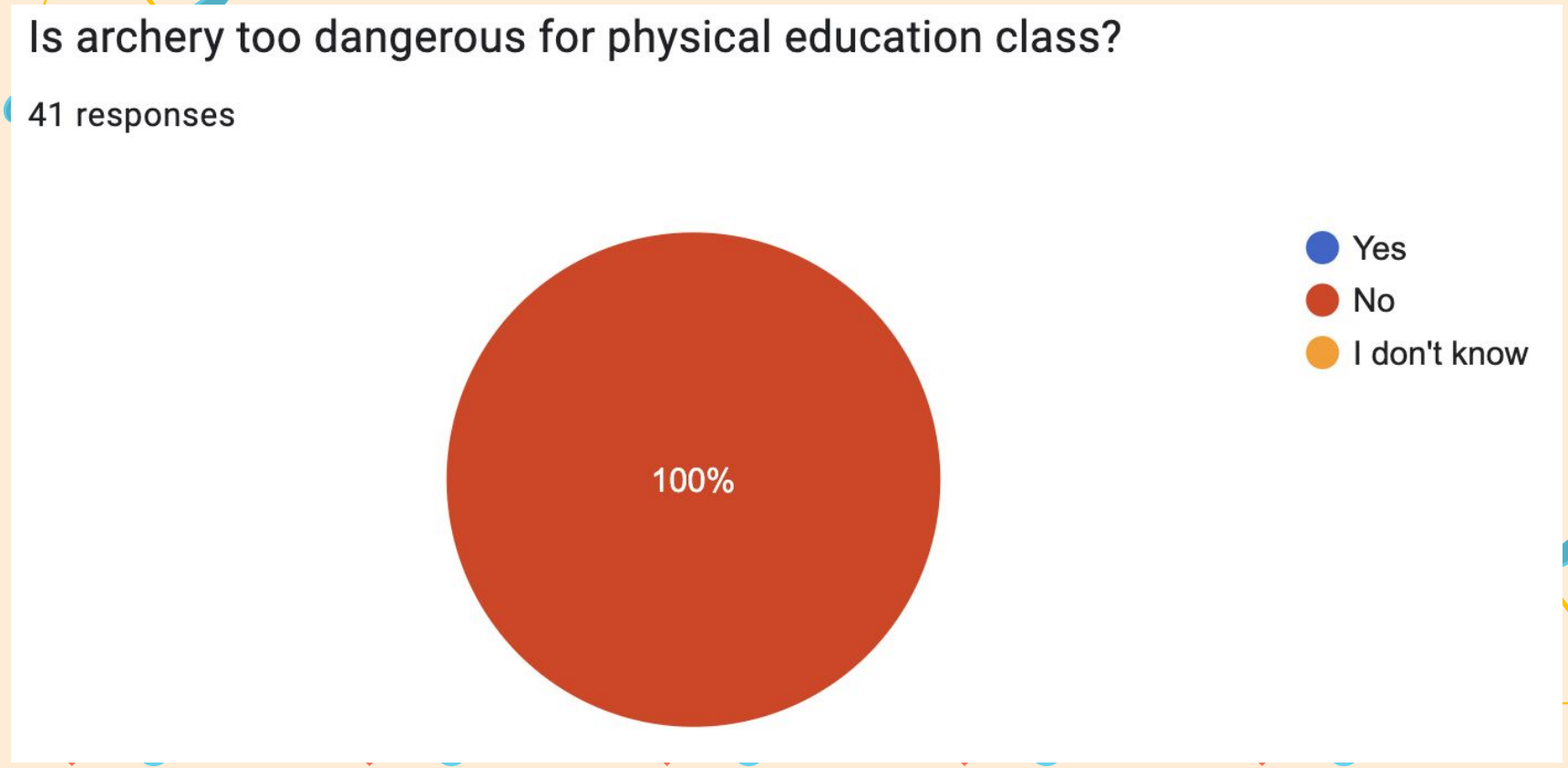


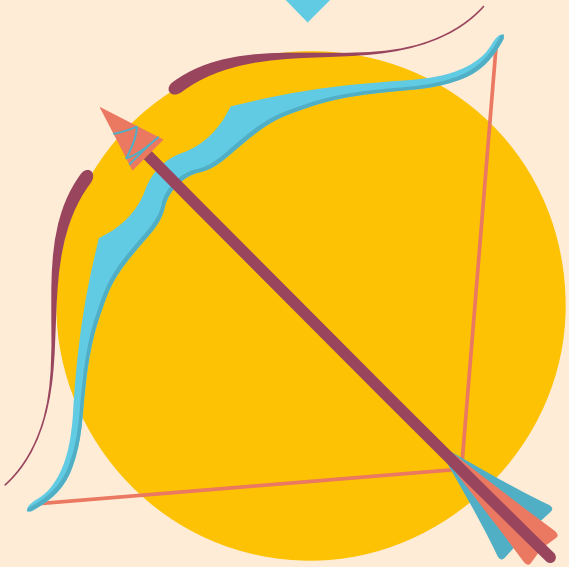
What about other students?

What about other students?



What about other students?



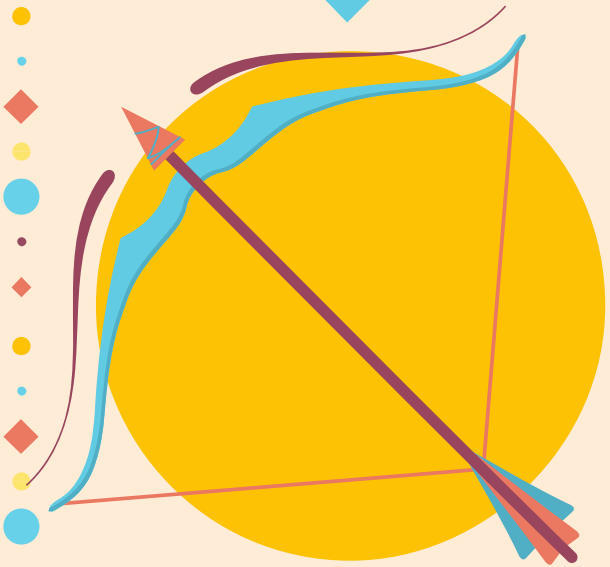


What Are Students Learning?

- Our seniors are learning about and developing their movement identities: the unique combination of activities you enjoy and regularly participate in that becomes part of who you are.

- Recreational activities are part of our movement identities: Any voluntary activity, structured or unstructured, that people engage in during their free time for enjoyment, relaxation, fitness, social interaction, or personal fulfillment.

- Archery is considered a recreational activity.



What Are Students Learning?

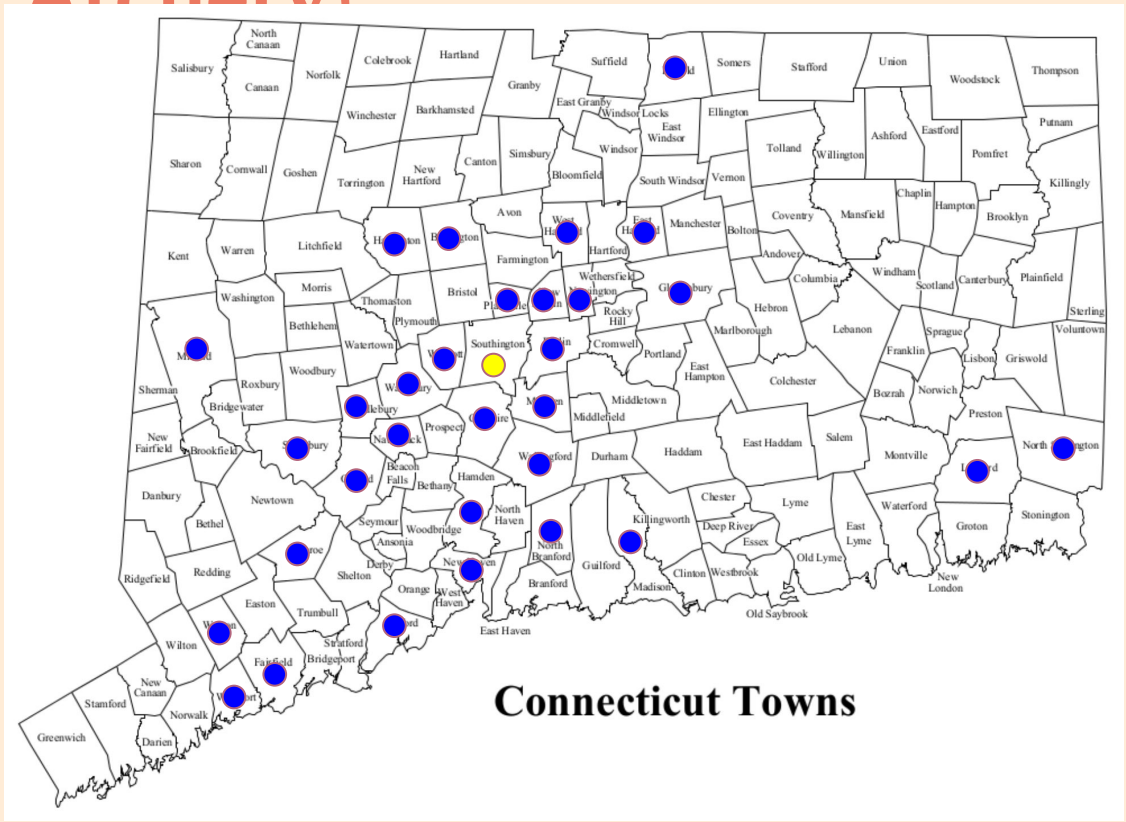
National Physical Education Standards

Standard 3: Develops social skills through movement.

Performance Indicator 3.12.6 - Applies best practices for participating safely in physical activity (e.g., proper etiquette, respect for others, injury prevention, use of equipment, implementation of rules).

Do any other districts offer Archery?

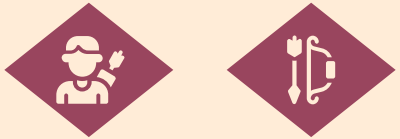
- CCSU
- SCSU



Okay … but is it SAFE?

Command Style Teaching

I say, you do.
Whistle commands posted and used.

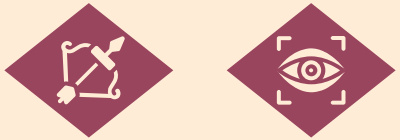


Major Emphasis on Safety

Safety is taught (first) and practiced.

Instruction

Setup and organization addresses safety.



Equipment

NASP: Designed for safety.
Designed for schools.

QUESTIONS?

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 n. 2.**

AGENDA REPORTING FORM

Agenda Topic: SHS Agricultural Science Course Change Proposal - Proposal #2 – Advanced Livestock Science- Second Reading.

Summary of Issue: SHS Agricultural Science Course Change Proposal - Proposal #2 – Advanced Livestock Science - Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the SHS Agricultural Science Course Change Proposal - Proposal #2 – Advanced Livestock Science – as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Non-Ruminant Livestock

ADV Livestock Science Units:

1 Credit, ½ Year Course

Every Year

Introduction

Small Ruminant Anatomy and Physiology

Small Ruminant Nutrition and Health Management

Cattle Anatomy and Physiology

Cattle Nutrition and Health Management

Poultry

Swine

Exotics

ADV Ruminant Production Units:
1 Credit, ½ year course
Year 1

Introduction

Goat

Sheep

Cattle

ADV Non Ruminant Production Units:
1 Credit, ½ year course
Year 2

Introduction

Hog

Poultry

Exotics

Each unit will cover the following subjects relating to their species: Terminology, Anatomy, Handling/Restraint, Feeding & Management, Reproduction, Health and Disease, and Careers

Rationale: Right now, Advanced Livestock Science tries to cover a huge amount of information in just one semester. Students are expected to learn about both ruminant and non-ruminant species across a wide range of topics—terminology, anatomy, handling and restraint, feeding and management, reproduction, health and disease, and careers. With so much to cover, it's difficult for students to gain a full understanding in just one class. By splitting the course into Advanced Livestock Management and Advanced Livestock Evaluation & Showmanship, students will be able to focus more deeply on each area, building

stronger knowledge and skills that will better prepare them for future opportunities in the livestock industry. These new courses will be taught by our Large Animal Science teacher, ensuring consistency in instruction and expertise.

We also see steady interest from students in specializing in large animal and livestock science, with 8–14 students each year choosing this pathway. Previously, the livestock class ran every year as the exact same course, which limited student growth. With the new structure, one class will run in “Year 1” and the other in “Year 2,” giving students who are passionate about livestock the chance to take more than one advanced livestock class during their junior and senior years. This keeps them engaged in their chosen focus area while offering more opportunities to build skills. Overall, this change allows us to better meet student interest while strengthening our livestock science program.

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 n. 3.**

AGENDA REPORTING FORM

Agenda Topic: SHS Agricultural Science Course Change Proposal - Proposal #3 – Veterinary Technology- Second Reading.

Summary of Issue: SHS Agricultural Science Course Change Proposal - Proposal #3 – Veterinary Technology - Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the SHS Agricultural Science Course Change Proposal - Proposal #3 – Veterinary Technology – as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Proposal #3: Split Veterinary Technology (Middlesex CC) into MXCC - Veterinary Technology and MXCC Veterinary Science

Veterinary Technology (Middlesex CC)

1 Credit, ½ Year Course

Every Year

Ethics and Jurisprudence

Veterinary Practice Management

Preventative Health Care

Reproduction and Neonatology

Small and Large Animal Nutrition

Small and Large Animal Diagnostic Techniques and Nursing Skills

Animal Behavior

Veterinary Technology Units: **1 Credit, ½ year course** **Year 1**	**Veterinary Science Units:** **1 Credit, ½ year course** **Year 2**
Ethics and Jurisprudence	Facility Management and Safety
Veterinary Practice Management	Handling and Restraint
Preventative Health Care	Canine
Reproduction and Neonatology	Feline
Training and Handling	Equine
Small and Large Animal Nutrition	Production Animals
Nursing and Diagnostic Techniques	Exotic and Lab Animals
Animal Behavior	Nutrition

Rationale: From 2018–2024, the MXCC Veterinary Science program was taught as a yearlong course, combining two Middlesex Community College courses into one class. Last year, we attempted to scale the program back to only one of the veterinary courses in general, with the goal of creating more room in student schedules for other classes. However, after clarification from Middlesex Community College, both courses are required to be taught. To meet this requirement, we propose teaching the MXCC Veterinary Science course in Year 1 and the MXCC Veterinary Technology course in Year 2, rotating them on a yearly basis.

This structure ensures that students—whether juniors or seniors—will have access to both courses during their time in the program. Offering both courses separately provides a more in-depth, hands-on learning experience, better preparing students for careers in the veterinary field.

This change also reflects student interest: this year alone, 35 students are enrolled in the MXCC Veterinary Technology course, and we typically have 10–30 students interested annually. With Nicole Wilcox available to teach the Veterinary Science course, including up to two sections if needed, we have both the staffing and student demand to support the two-course model.

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** **January 8, 2026**

Decision Requested **X** **Agenda Code** **9 n. 4.**

AGENDA REPORTING FORM

Agenda Topic: SHS Agricultural Science Course Change Proposal - Proposal #4 – Advanced Wildlife- Second Reading.

Summary of Issue: SHS Agricultural Science Course Change Proposal - Proposal #4 – Advanced Wildlife - Second Reading.

Background: _____

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** N/A

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the SHS Agricultural Science Course Change Proposal - Proposal #4 – Advanced Wildlife – as presented by the Curriculum & Instruction Committee.

Titles of Attachments:

1. Course Proposal

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Proposal #4: Split Advanced Wildlife into Advanced Global Conservation and Advanced Wildlife Conservation and Biology

Advanced Wildlife

1 Credit, ½ Year Course

Every Year

Wildlife Conservation

African Ecology and Conservation

History of Conservation and U.S. National Parks and Forests

North American Wildlife Management

Global Biodiversity - Asia & South America

Advanced Global Conservation Units: 1 Credit, ½ year course Year 1	**Adv. Wildlife Conservation & Biology Units: 1 Credit, ½ year course Year 2**
Wildlife Conservation	Wildlife Ecology and Field Methods
African Ecology and Conservation	Population Studies & Wildlife Data Analysis
History of Conservation and U.S. National PArks and Forests	Wildlife Habitat Management & Restoration
North American Wildlife Management	Endangered & Invasive Species Management
Global Biodiversity - Asia & South America	Wildlife Health, Diseases and Human Interaction
	Conservation Policy, Careers and Communication

Rationale: This is a large subject area to cover and encompasses conservation issues ranging from Southington, then expanding the scope to include Connecticut, New England, The United States, North America and then the world. It would be beneficial to students interested in this career pathway to split the class into two: focusing on global conservation issues with emphasis in careers in national and international conservation, and delving more into local and regional career opportunities in conservation. Both courses will also cover material in preparation for the Natural Resources Career Development Event through The National FFA Organization.

On average, the Wildlife course has between 10 and 20 students interested in enrolling each year. By dividing the current course into two distinct offerings, we can provide those students with the opportunity to explore the subject of Wildlife in greater depth. At present, Morgan Maglio and Owen McLaughlin alternate teaching the course each year, covering the same content. This rotation will remain the same; however, the instructional content will be differentiated between the two courses.

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 10 a. 1.

AGENDA REPORTING FORM

Agenda Topic: Approval of Out of State/Overnight Field Trip

Summary of Issue: The Board of Education must give approval for field trips that are over 200 miles in distance from Southington, trips to foreign countries, or overnight field trips. Presented here is the following trip:

- SHS – CyberKnights Robotics Team – Burlington, VT
  - April 2-4 , 2026

Background: N/A

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** _____

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the field trip request as presented by the administration.

Titles of Attachments:
1. Field Trip Application

Signature of Staff Member Submitting Report

Signature of Superintendent of Schools

Southington High School
CyberKnights

Burlington, VT

(April 2- April 4, 2026)

R-6153, Rev. 10/22/25

Southington Public Schools, Southington, Connecticut

Application for Out-of-State/In-State/Overnight Field Trip

Submit to Director of Teaching and Learning

Date: Dec. 2, 2025 School: Southington High

(Must be at least two weeks prior for field trips that do not require BOE approval)

BOE

Out of State: Yes X☐ No ☐ Miles Round Trip: 390

Overnight: Yes X No ☐

Class/Group/Grade: CyberKnights Robotics Team Date of Trip April 2 – 4, 2026

Name and Address of Destination University of Vermont 97 Spears Street, Burlington, VT 05405

Reason for Field Trip FIRST Robotics Competition

Itinerary - BOE only

Departure Date/Time 4/2/26 6:00 am Return Date/Time 4/4/26 11:00 pm

Type: ☐ Academic (15:1) x☐ Non-Academic (10:1) ☐ Abroad (8:1) Required Ratio (Student: Teacher/Chaperone)

# of Students: 43 # of Total Chaperones: 10 #of Buses: 1

Yes ☐ No ☒ - Do any of the students who will be attending this field trip currently have Specialized Transportation?

Yes ☐ No ☐ - If so, has Specialized Transportation been considered when scheduling transportation for this trip?

Have definite arrangements been made at the field trip destination? Yes x☐ No ☐

x
☐ Have met with a nurse to address student health needs.

Nurse's Signature [signature] *Date* 12-3-25

☐ **TRIPS REQUIRING BOE APPROVAL ONLY:** Have NOT met with the nurse. Will meet with the nurse to address student health needs when the student roster is complete. This meeting will take place approximately one month prior to the scheduled trip.

Destination is handicap accessible: Yes ☑ No ☐ Lift Van Needed? Yes ☐ No ☒

****

COST AND FINANCING

Source of Funds	Totals	Additional Notes
TOTAL Anticipated Cost of Trip	**$21,500**	
Board of Education Contribution	$0	
Other	$	
Fundraising Activity	($)	
BALANCE	**$**	
Student Contribution		
Transportation	$300	43 Students @ $12.900
Entrance Fees, Room & Board	$200	43 Students @ $8,600
TOTAL Cost of Trip to Each Student	**$500.00**	Student Fundraised

SIGNATURES – PLEASE PRINT & SIGN

Teacher PRINT: Diana S Drechsler SIGN: [signature] Date Dec. 2, 2025

Principal PRINT: Rich Arsenault SIGN: [signature] Date 12/3/25

Comments

Approved ☑

Director of Teaching & Learning: Amy Zappone Date 12-4-25 Not Approved ☐

Board of Education Approval*** YES ☐ NO ☐ Date

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 10 a. 2.

AGENDA REPORTING FORM

Agenda Topic: Approval of Out of State/Overnight Field Trip

Summary of Issue: The Board of Education must give approval for field trips that are over 200 miles in distance from Southington, trips to foreign countries, or overnight field trips. Presented here is the following trip:

- SHS – CyberKnights Robotics Team – Houston, TX
  - April 28- May 3, 2026

Background: N/A

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** _____

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the field trip request as presented by the administration.

Titles of Attachments:
1. Field Trip Application

Frank Rapp
_____
Signature of Staff Member Submitting Report

Glenn Madancy
_____
Signature of Superintendent of Schools

Southington High School
CyberKnights

Houston, TX

(April 28- May 3, 2026)

R-6153, Rev. 10/22/25

Southington Public Schools, Southington, Connecticut

Application for Out-of-State/In-State/Overnight Field Trip

Submit to Director of Teaching and Learning

Date: Dec. 2, 2025 School: Southington High

(Must be at least two weeks prior for field trips that do not require BOE approval)

BOE

Out of State: Yes X☐ No ☐ Miles Round Trip: 3600

Overnight: Yes X☐ No ☐

Class/Group/Grade: CyberKnights Robotics Team Date of Trip April 28 – May 3, 2026

Name and Address of Destination George Brown Convention Center 1001 Avenida de Las Americas Houston, TX

Reason for Field Trip FIRST Robotics Competition

Itinerary - BOE only

Departure Date/Time April 28, 2026 6:00 am Return Date/Time May 3, 2026 7:00 pm

Type: ☐ Academic (15:1) x☐ Non-Academic (10:1) ☐ Abroad (8:1) Required Ratio (Student: Teacher/Chaperone)

# of Students: 43 # of Total Chaperones: 10 #of Buses: 1

Yes ☐ No ☒ - Do any of the students who will be attending this field trip currently have Specialized Transportation?

Yes ☐ No ☐ - If so, has Specialized Transportation been considered when scheduling transportation for this trip?

Have definite arrangements been made at the field trip destination? Yes x☐ No ☐

x

☐ Have met with a nurse to address student health needs.

Nurse's Signature [signature] *Date* 12-3-25

☐ TRIPS REQUIRING BOE APPROVAL ONLY: Have NOT met with the nurse. Will meet with the nurse to address student health needs when the student roster is complete. This meeting will take place approximately one month prior to the scheduled trip.

Destination is handicap accessible: Yes ☑ No ☐ Lift Van Needed? Yes ☐ No ☒

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COST AND FINANCING

Source of Funds	Totals	Additional Notes
TOTAL Anticipated Cost of Trip	**$86,000**	
Board of Education Contribution	$0	
Other	$	
Fundraising Activity	($)	*Ongoing fundraising*
BALANCE	**$**	
Student Contribution		
Transportation	$1000	43 Students @ $43,000
Entrance Fees, Room & Board	$1000	43 Students @ $43,000
TOTAL Cost of Trip to Each Student	**$2000**	Student can fundraise towards trip

SIGNATURES –PLEASE PRINT & SIGN

Teacher PRINT: Diana S Drechsler SIGN: [signature] Date Dec. 2, 2025

Principal PRINT: [illegible] SIGN: [signature] Date 12/3/25

Comments

Approved ☑

Director of Teaching & Learning: Amy Zappone Date 12-4-25 Not Approved ☐

Board of Education Approval*** YES ☐ NO ☐ Date

BOARD OF EDUCATION
SOUTHINGTON, CONNECTICUT

Informational Only _____ **Board Meeting Date** January 8, 2026

Decision Requested X **Agenda Code** 10 a. 3.

AGENDA REPORTING FORM

Agenda Topic: Out of State: Approval of Out of State/Overnight Field Trip

Summary of Issue: The Board of Education must give approval for field trips that are over 200 miles in distance from Southington, trips to foreign countries, or overnight field trips. Presented here is the following trip:

- SHS – Grades 10-12 (especially Latin students) – Rome and Sicily, Italy
  - April 1 - April 10, 2027

Background: N/A

Alternative Strategies: N/A

Cost (if applicable): N/A **Funding Source:** _____

Beginning Date of Program or Project: N/A

Ending Date of Program or Project: N/A

Recommendation or Comment: Move that the Board of Education approve the field trip request as presented by the administration.

Titles of Attachments:
1. Field Trip Application

Frank Rapa
_____
Signature of Staff Member Submitting Report

Steven Madaras
_____
Signature of Superintendent of Schools

Southington High School
Grades 10-12
(especially Latin students)

Rome and Sicily Italy

(April 1- April 10, 2027)

R-6153, Rev. 12/11/25

Southington Public Schools, Southington, Connecticut

Application for Out-of-State/In-State/Overnight Field

Needs BOE Approval

Date: 12/16/25
School: SHS

Out of State:	Yes ☒	No ☐
Overnight:	Yes ☒	No ☐

Miles Round Trip: approx. 10,000 miles

Class/Group/Grade: SHS High School students (grades 10-12), especially Latin students			Date of Trip 4/1-4/10/2027*
Name and Address of Destination	Rome & Sicily		
Reason for Field Trip	enhance students' understanding & appreciation of the history of ancient Rome and its impact not only on the history, culture, and customs of Europe but also on those of America		
Itinerary - BOE only	attached in proposal doc		
Departure Date/Time	4/1/2027	Return Date/Time	4/10/2027

Type: ☐ Academic (15:1) ☐ Non-Academic (10:1) ☒ Abroad (8:1) **Required Ratio (Student: Teacher/Chaperone)**

# of Students: ~20 **# of Total Chaperones:** 3 **#of Buses:** 1

Yes ☐ No ☐ - Do any of the students who will be attending this field trip currently have Specialized Transportation?

Yes ☐ No ☐ - If so, has Specialized Transportation been considered when scheduling transportation for this trip?

Have definite arrangements been made at the field trip destination? Yes ☐ No ☒

☐ **Have met with a nurse to address student health needs.**

Nurse's Signature _____ *Date* _____

☒ **TRIPS REQUIRING BOE APPROVAL ONLY: Have NOT met with the nurse. Will meet with the nurse to address student health needs when the student roster is complete. This meeting will take place approximately one month prior to the scheduled trip.**

Destination is handicap accessible: Yes ☐ No ☐ **Lift Van Needed?** Yes ☐ No ☐

****

COST AND FINANCING

Source of Funds	Totals	Additional Notes
TOTAL Anticipated Cost of Trip	$92,760	
Board of Education Contribution	$	
Other	$	
Fundraising Activity	($)	fundraising will be organized for interested students
BALANCE	$92,760	
Student Contribution		
Transportation	$3,000	20 Students @ $150
Entrance Fees, Room & Board	$89,760	20 Students @ $4,488.00 (Explorica price – covers airfare, hotel stays, breakfasts, dinners, & all entrance fees)
TOTAL Cost of Trip to Each Student	$4,638	students will also need to purchase travel insurance as well as budget for daily lunches and any personal spending

SIGNATURES – PLEASE PRINT & SIGN

Teacher	PRINT: Alicia Freiman	SIGN:	Date 12/16/25
DL	PRINT: Tina Riccio	SIGN:	Date 12/16/25
Principal	PRINT: Rich Arvin	SIGN:	Date 12/16/25

Assistant Superintendent Frank Rys Date 12/22 Approved ☒ Not Approved ☐

Board of Education Approval* YES ☐ NO ☐ Date

Rome & Sicily

Excursion and Study for High School Students

Thursday April 1 - Saturday April 10, 2027*

Southington High School

Coordinators: Alicen Foresman & Megan Martin

*dates subject to change depending on approved school calendar 2026-2027

STUDY ABROAD CONTRACT

In order to participate in the Rome & Sicily study abroad program, the following criteria must apply to all applicants:

- The student is in good academic standing according to the Southington Board of Education student handbook rules.
- The student has no suspensions or behavioral issues within the academic year of the trip.
- The student has been approved by the SHS Admin team and ALL support staff & services.
- The studnet has purchased "Cancel for Any Reason" travel insurance.

N.B No student will be considered for this program if he or she does not meet the above criteria.

Parents please be aware of the following stipulations:

- Your student can be removed from the Rome & Sicily study abroad program if there are any academic, legal or school related problems. If this does occur all payments made are non-refundable.
- The students participating in this program will be chosen on the basis of academic, social and emotional stability.
- The teacher has the right to use personal discretion when choosing the participants in this study abroad opportunity.
- There will be a curfew in place in Italy - room checks will occur each night.
- Due to the uncertain nature of world security and other unforeseeable events, field trip participants must understand that the Board of Education reserves the right to cancel field trips at any time prior to the time of departure of the trip. The Southington Board of Education or its agents will not be responsible for any financial losses or penalties incurred as a result of the cancellation of any field trip.
- At the highest [red] alert, no field trips will be allowed out of the City of Southington for any reason

Please sign and return by _____

Parent/Guardian signature _____

Parent/Guardian signature _____

Student's signature _____

Program Outline:
We will travel with Explorica on its *Rome & Sicily* tour for nine days during spring break in April of 2027. The focus of this program is to enhance the students' understanding and appreciation of the history of ancient Rome and its impact not only on the history, culture, and customs of Europe but also on those of America. The program will allow all students, but in particular students of Latin, to explore the city that spawned an empire - an empire that spoke, wrote, thought, and dreamed in Latin. After experiencing Rome, the heart of the Roman empire, we will also travel to the ancient city of Pompeii to get a glimpse of daily life, preserved by the tragic eruption of Mount Vesuvius. Then the trip will wrap up down in Sicily, where students will encounter the ancient Greek influence in the Valley of the Temples.

Please see final page for the tentative schedule of events.

The Benefits of this Experience:
In an ever-changing society, our school system must remain on the cutting edge of education. This program provides the opportunity for our classroom curriculum and 21st century global education to merge. This opportunity will allow learners of all levels and styles to see and experience the physical evidence of Roman history and culture, while also exploring modern Italian culture and customs.

It is not realistic to expect that all SHS students will be able to have the opportunity to study abroad for a semester or an extended period of time. This program will allow students to see the remains of ancient Roman structures and artifacts in person, allowing for a deeper connection than can be experienced through photographs or written descriptions. The program also allows students to be immersed in modern Italian culture and language, both of which are heavily influenced by the ancient Roman culture and language (Latin). Although the students will not themselves be fully engaged with the modern Italian language, they will still have the opportunity to draw connections between the language they will see and hear everyday while on the trip and the language(s) they have been studying at SHS (Latin, Spanish, French, and Italian).

The importance of a study abroad program is a topic being discussed in classrooms across the nation. The following list was compiled by Diversity Abroad (a website) that discussed the importance of a study abroad experience. This list highlights the effectiveness of a study abroad experience and the fact that it is changing the face of education across the nation.

When studying abroad students will have the opportunity to gain skills such as:
- The ability to adapt to unfamiliar environments
- The ability to learn from different teaching styles
- The opportunity to learn to effectively communication among diverse groups
- The willingness to challenge oneself and comfort zones
- The knowledge of a foreign language

By studying abroad students will benefit from many unique experiences unavailable at the high school level. Such experiences include:
- Learning from students and teachers from different cultural, ethnic and national backgrounds
- Honing cross-cultural communication skills
- Mastering a foreign language
- Exposure to new ideas and philosophies

For many students study abroad is a life-changing experience. Students come back from study abroad more independent, confident, and eager to take on any challenge, academic, professional or personal.

There are many personal benefits to study abroad. Some of these benefits include:

- Increased self-confidence
- Independence and maturity
- Global networking of friends
- Appreciation of other cultures as well as appreciation for American culture
- Ability to face challenges in the future
- Learn to creatively solve problems
- Better understanding of personal strengths and weaknesses

The entire experience during this study abroad course can be transferred to the students of Southington High School. The knowledge gained during this program will continue far beyond the week time frame for both the students and the teacher. The knowledge that the students will receive from this experience is directly linked to the World Language Curriculum and the World-Readiness Standards for Learning Languages.

Communication:
Interpretive Communication: Learners understand, interpret, and analyze what is heard, read, or viewed on a variety of topics.
Presentational Communication: Learners present information, concepts, and ideas to inform, explain, persuade, and narrate on a variety of topics using appropriate media and adapting to various audiences of listeners, readers, or viewers.

Cultures:
Learners use the language to investigate, explain, and reflect on the relationship between the practices/products and perspectives of the cultures studied.

Connections:
Learners build, reinforce, and expand their knowledge of other disciplines while using the language to develop critical thinking and to solve problems creatively.
Learners access and evaluate information and diverse perspectives that are available through the language and its cultures.

Comparisons:
Learners use the language to investigate, explain, and reflect on the nature of language through comparisons of the language studied and their own.
Learners use the language to investigate, explain, and reflect on the concept of culture through comparisons of the cultures studied and their own.

Communities:
Learners use the language both within and beyond the classroom to interact and collaborate in their community and the globalized world.
Learners set goals and reflect on their progress in using languages for enjoyment, enrichment, and advancement.

One can continue drawing parallels between the benefits of this program and the Southington education standards. The curriculum is based on these as well as other standards set to make the students the highest quality of learners. The Latin curriculum for all levels discusses topics such as ancient history and culture, mythology and traditions, and daily life.

Four Cs:

This program can help the school achieve its maximum potential using our focus on the four Cs: **communication, critical thinking, creativity** and **collaboration**.

This program focuses on higher order thinking and cross disciplinary learning. This is an opportunity that will set us apart from the masses; we will be focusing on **authentic** learning opportunities in the epicenter of Roman culture and traditions. The students will use their **creativity** skills when they are pushed beyond their comfort zones and are required to consistently persevere when presented with linguistic and/or cultural challenges. This experience will force them to take risks and to inquire using their **communication** skills about new topics and use **critical thinking** skills to problem solve to express themselves in a foreign country. Along with using those skills, students will also be **collaborating** with one another on excursions out and about in the city of Rome. Furthermore, students will make cross-disciplinary connections and experience authentic learning opportunities not possible in their home country or domestic classroom.

Connections to other Disciplines: Rome, Italy Latin trip

Social Studies/History-

- Students will analyze the influence of Roman history on European history and culture at large.
- Students will learn about the political comparisons between the ancient Roman republic and modern American democracy.
- Students will observe the social imprint of the ancient Romans on modern Italian culture and customs.

Art-

- Students will analyze examples of art and architecture from various time periods, including ancient, Renaissance, and modern.

Science-

- Students will observe the natural landscape and the differences in land formations and explore how Rome's location (on seven hills near a river) influenced its growth.
- Students will explore the effects of Vesuvius on the surrounding countryside and how the volcanic eruption helped to preserve architecture, artefacts, and even inhabitants of Pompeii and other ancient cities.
- Students will analyze the process of archaeological discovery and preservation.

English-

- Students will demonstrate understanding of the nature of language through comparisons of the language studied and their own.
- Students will expand their knowledge of Latin roots in English through the use of those same roots in the modern Italian language.

Math-

- Students will convert currency between dollars and Euros
- Students will budget their money for expenses

In conclusion:

This trp will provide a new experience for many students at Southington High School and will expand their knowledge and appreciation of the ancient classical world. The historical stories, grammar concepts, and geographical studies one reads about in textbooks and articles will be brought to life. This groundbreaking educational jump will prove more valuable than simply retelling students about a specific city, concept or tradition; the students will be able to live it. Teachers and students should always be open to furthering their education. This opportunity will allow both the teacher and students to enhance their own knowledge and become better global citizens and lifelong learners.

Tentative* Trip Schedule:

*site visits subject to change; order of visits subject to change

Day 1 - Start Tour
Student drop-off at SHS
Travel from SHS to NYC airport by bus
Fly from NYC to Rome (overnight flight)

Day 2 - Arrive in Rome
Meet tour director/check into hotel
Rome city walk and sightseeing
Spanish Steps, Trevi Fountain, Pantheon, Piazza Navona

Day 3 - Rome
Guided walking tour in Vatican City
Vatican Museum, Sistine Chapel, St. Peter's Basilica
Colosseum, Piazza Venezia, & Roman Forum visit
Authentic trattoria dinner

Day 4 - Rome to Sorrento
Travel to Sorrento region
Capri & Blue Grotto

Day 5 - Sorrento region
Pompeii guided excursion
Naples guided sightseeing tour
Castel dell'Ovo, Piazza Plebescito, Piazza Municipio, National Archaeological Museum of Naples
Overnight ferry from Naples to Palermo

Day 6 - Palermo
Palermo guided sightseeing tour
Quattro Canti, Palermo Cathedral, Teatro Massimo Opera House, Monreale Cathedral
Head to Argigento

Day 7 - Agrigento
Agrigento guided sightseeing tour
Valley of the Temples visit
Head to Taormina

Day 8 - Taormina
Taormina guided sightseeing tour
Palazzo Corvaia, Botanical Gardens, Greek theater

Day 9 - Taormina
Aeolian Islands excursion

Day 10 - Return home
Fly from Catania to NYC
Travel from NYC airport to SHS by bus
Student pick-up at SHS

SOUTHINGTON Public Schools

DRAFT 1/5/26

2026-2027 CALENDAR (DRAFT)

August – 3 Days				
M	T	W	Th	F
3	4	5	6	7
10	11	12	13	14
17	18	19	20	21
PD	PD	PD	*27*	28
~31~				

September – 21 Days				
M	T	W	Th	F
	1	2	3	4
(7)	8	9	10	11
14	~~15~~	16	17	18
21	22	23	24	25
28	29	30		

October – 21 Days				
M	T	W	Th	F
			1	2
5	6	7	8	9
(12)	13	14	15	16
19	~~20~~	21	22	23
26	27	-28-	-29-	30

November – 16 Days				
M	T	W	Th	F
2	PD	4	5	6
9	10	(11)	-12-	13
16	17	18	-19-	20
23	24	(25)	(26)	(27)
30				

December – 17 Days				
M	T	W	Th	F
	~~1~~	2	3	4
7	8	9	10	11
14	15	16	17	18
21	22	~~23~~	(24)	(25)
(28)	(29)	(30)	(31)	

January – 19 Days				
M	T	W	Th	F
				(1)
4	5	6	7	8
11	~~12~~	13	14	15
(18)	19	20	21	22
25	26	27	28	29

February – 18 Days				
M	T	W	Th	F
1	~~2~~	3	4	5
8	9	10	11	12
(15)	(16)	17	18	19
22	23	24	25	26

March – 22 Days				
M	T	W	Th	F
1	~~2~~	3	4	5
8	9	10	11	12
15	16	-17-	-18-	19
22	23	24	25	(26)
29	30	31		

April – 17 Days				
M	T	W	Th	F
			1	2
5	~~6~~	7	8	9
(12)	(13)	(14)	(15)	(16)
19	20	21	22	23
26	27	28	29	30

May – 20 Days				
M	T	W	Th	F
3	~~4~~	5	6	7
10	11	12	13	14
17	18	19	20	21
24	25	26	27	28
(31)				

June – 7 Days				
M	T	W	Th	F
	1	2	3	4
7	8	~~9~~	10	11
14	15	16	17	18
21	22	23	24	25
28	29	30		

181 Instructional Days
(186 Staff Days)

KEY	
~~ ~~	Early Dismissal- Listed Schools
- -	Early Dismissal - Listed Schools
( )	Holiday/Vacation – **No School**
PD	Workday/PD – **No School for Students**

8/27/2026 *First Day of School for K-12 Students*
8/31/2026 ~First Day of School for Pre-K Students~

8/24/2026, 8/25/2026, 8/26/2026, 11/3/2026 – Staff Workdays/PD – No School for Students

Any unexpected school closings will be made up following the scheduled last day of school up to June 30, 2026. If additional weather-related days are needed beyond these days, we will begin with April 16, 2026 and move backward.

Early Dismissal – Listed Schools /	
9/15/26	K-12
10/20/26	K-12
12/1/26	K-12
12/23/26	PreK-12
1/12/27	K-12
2/2/27	K-12
3/2/27	K-12
4/6/27	K-12
5/4/27	K-12
6/9/27-Tent. Last Day	PreK-12

Early Dismissal – Listed Schools - -
SHS / KSA
11/12/26 – SHS Conferences
JAD & JFK Middle Schools
11/19/26 – M.S. Conferences
Elementary Schools – PreK-5
10/28/26 & 10/29/26 - Elem. Conf.
3/17/27 & 3/18/27 - Elem. Conf.

NO SCHOOL ( )	
9/7/26	**Labor Day**
10/12/26	**Columbus Day**
11/11/26	**Veterans Day**
11/25/26 - 11/27/26	**Thanksgiving Recess**
12/24/26 - 1/1/27	**Holiday/Winter Recess**
1/18/27	**Martin Luther King Day**
2/15/27 - 2/16/27	**Presidents' Day Recess**
3/26/27	**Good Friday**
4/12/27 – 4/16/27	**Spring Break**
5/31/27	**Memorial Day**

Facility/School	Phone	Hours	Address
Board of Education	860-628-3202	7:30-4:30	200 North Main Street
Southington High School	860-628-3229	7:37-2:15	720 Pleasant Street
Karen Smith Academy	860-628-3379	7:37-12:50 & 1:50 (WL Class)	242 Main Street
STELLAR Program	860-628-3200	8:00-2:00	48 North Main Street
J. A. DePaolo Middle School	860-628-3260	8:05-2:40	385 Pleasant Street
J. F. Kennedy Middle School	860-628-3275	8:05-2:40	1071 South Main Street
Derynoski Elementary School	860-628-3286	8:55-3:25	240 Main Street
Flanders Elementary School	860-628-3372	8:35-3:05	100 Victoria Drive
Hatton Elementary School & Wrinn Preschool Center	860-628-3377	8:35-3:05	50 Spring Lake Road
Kelley Elementary School	860-628-3310	8:55-3:25	501 Ridgewood Road
Oshana Elementary School	860-628-3450	8:35-3:05	70 Church Street
South End Elementary School	860-628-3320	8:35-3:05	Maxwell Noble Drive
Strong Elementary School & Wrinn Preschool Center	860-628-3314	8:55-3:25	820 Marion Avenue
Thalberg Elementary School	860-628-3370	8:35-3:05	145 Dunham Street

Special Observation Days	
9/11/26 - 9/13/26*	**Rosh Hashanah**
9/20/26 - 9/21/26*	**Yom Kippur**
9/25/26 - 10/2/26*	**Sukkot**
11/8/26	**Diwali**
1/6/27	**Three Kings Day**
Begins 2/7/27*	**Ramadan**
3/22/27	**Holi**
4/21/27 - 4/29/27*	**Passover**

*Holiday begins at sundown the evening of the first date specified.

Southington BOE Policy 5113 considers observance of a religious holiday an excused absence, and faculty will make appropriate accommodations for students affected by these and other special observation days.

ECCS

Early Childhood Collaborative of Southington

Joanne Kelleher, Executive Director

www.southingtonearlychildhood.org

ECCS

Early Childhood Collaborative of Southington

Established in 2006 under CFGNB. *History*

Mission Statement:

Collaborating to ensure Southington's children are healthy and prepared to learn through advocacy, programs, resources, and support.

ECCS Funders

Fiscal Agent:

Community Foundation of Greater New Britain

LGP Contract:

Shine Early Learning

Connecticut Office of Early Childhood

Project Grants:

Main Street Community Foundation

The Connecticut Project

Connecticut Children's Collective

The Stocker Foundation

Donations from the ECCS Board and members of the community.

ECCS Early Childhood Collaborative of Southington

What does ECCS Do?

- Families – prenatal through K and elementary age
- Resources Directory / Info
  - Childcare, camps and before/after school options
  - Enrichment/summer activities
  - Healthcare providers and mental health support
  - Kid's events and activities
  - Parks, playgrounds and outdoor spaces
  - Health, safety, SEL and development issues

www.southingtonearlychildhood.org

ECCS
Early Childhood Collaborative of Southington

What does ECCS Do?

- Education
  - Parent workshops
  - Kindergarten Info Session and Readiness Workshop
  - Car seat checks with SPD
  - Info Calls and PD for Childcare Providers
  - Parent Office Hours

- Social Media: Car seat usage, fire prevention, stress, supports, developmental milestones, activities, other health, safety and school readiness issues

ECCS
Early Childhood Collaborative of Southington

What does ECCS Do?

- Advocacy – Local, State and Federal

- Outreach
  - Events
  - Community Organizations
  - Letter/brochure to new parents via Town Clerk's office
  - Books and math kits for incoming K students
  - Books via Southington Community Services
  - Print ads and sign on Town Green
  - Social media, email and calls to answer questions about childcare, providers, etc.

ECCS
Early Childhood Collaborative of Southington

Structure

- Board of Directors – Governance & Strategy
- Executive Director
- Marketing Admin
- Parent Ambassadors
- NEW: LGP Community Table

- Work driven by community data and strategic planning.

ECCS
Early Childhood Collaborative of Southington

ECCS

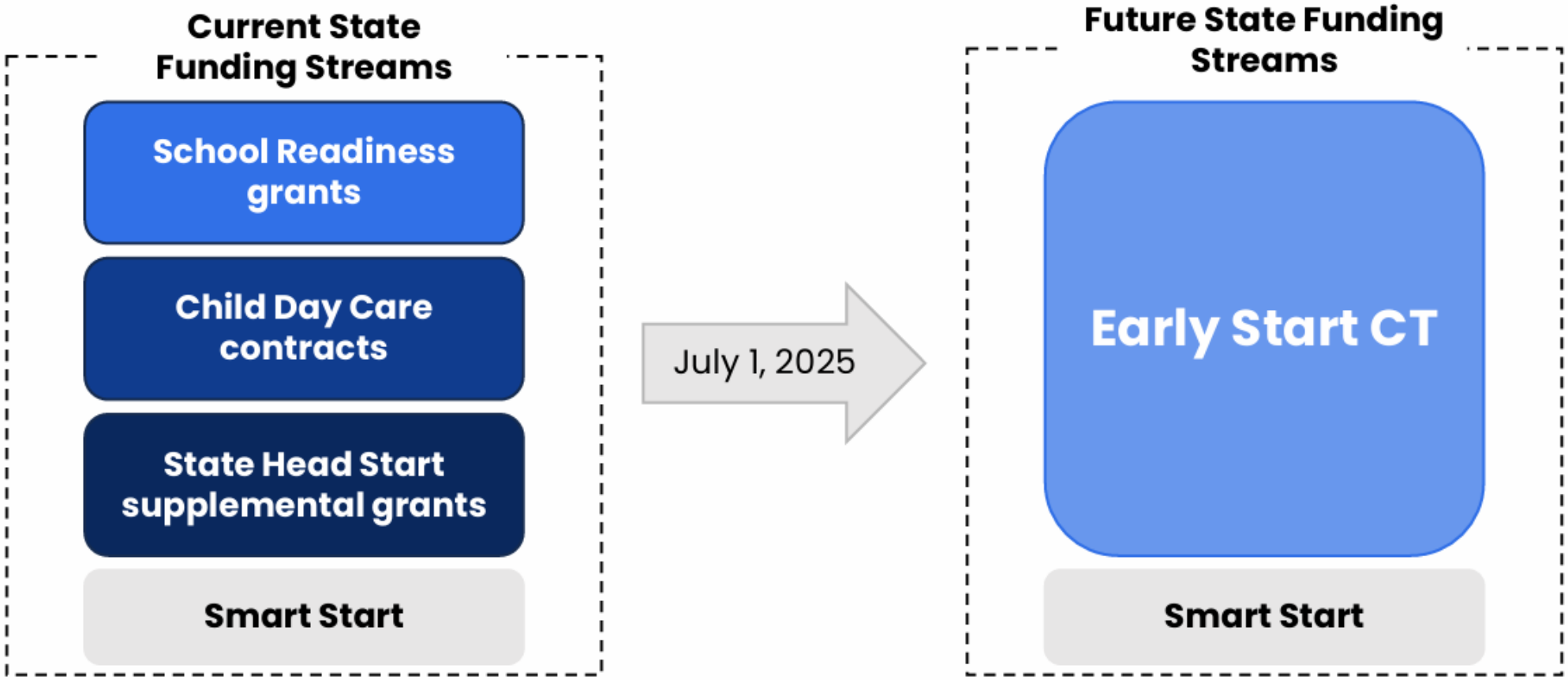
Early Childhood Collaborative of Southington

Early Start CT and Local Governance Partner

www.ctoec.org/early-start-ct/

What is Early Start CT?

Early Start CT is the new state funding stream that combines the current School Readiness grants, Child Day Care Contracts, and State Head Start supplemental grants; it goes into effect July 2025



PRELIMINARY DRAFT

Why is the shift to Early Start CT happening now?

Simplifying the state-funded system by creating Early Start CT was a **key recommendation** in the Blue Ribbon Panel's report, based on **extensive feedback** from providers, parents, and advocates

PILLARS OF THE PLAN

- Equity
- Quality
- Affordable Access
- Provider and System Stability
- Family and Community Voice

SYSTEMS OBJECTIVES AND ACTION STEPS

Objectives

3A

Simplify the state-funded system to better align with federal systems, reduce complexity, and increase utility.

3C

Ensure family and representative community voices are central in the ECE system.

Key Action Steps

Consolidate the state-funded system into one or two funding streams to minimize administrative burdens on programs and simplify parent navigation by SFY2025.

Determine statutory and regulatory changes to support a unified state funding system for the 2024 session.

Significantly reduce the number of state general policy requirements. This may require statutory changes.

Recognize, empower, and embed families as central and valued decision-makers in the development of an equitable ECE system.

Partner with parents as advisors to develop and implement policies at the program, state, and local level to elevate families' diverse perspectives.

Expand local organizational supports and implement a common needs assessment to ensure an equitable and responsive ECE system by SFY2026.

OUTCOMES

- Early Start CT
- Local Governance Partners

Early Start CT Expansion Features:

Affordable or free high-quality child care **via Mixed Delivery** – Public Schools, Child Care Centers, Group Child Care Homes & Family Child Care Homes

Simple, easy to access, and flexible to meet family needs

Fair and data driven with community planning and decision making

Capitalizes on the Blue Ribbon Panel Early Start CT system improvements

Creates 20,000 new or extended day child care spaces by 2032

Strengthens the whole birth through 5 early childhood system with funding to assure parity and stability for infant and toddler care

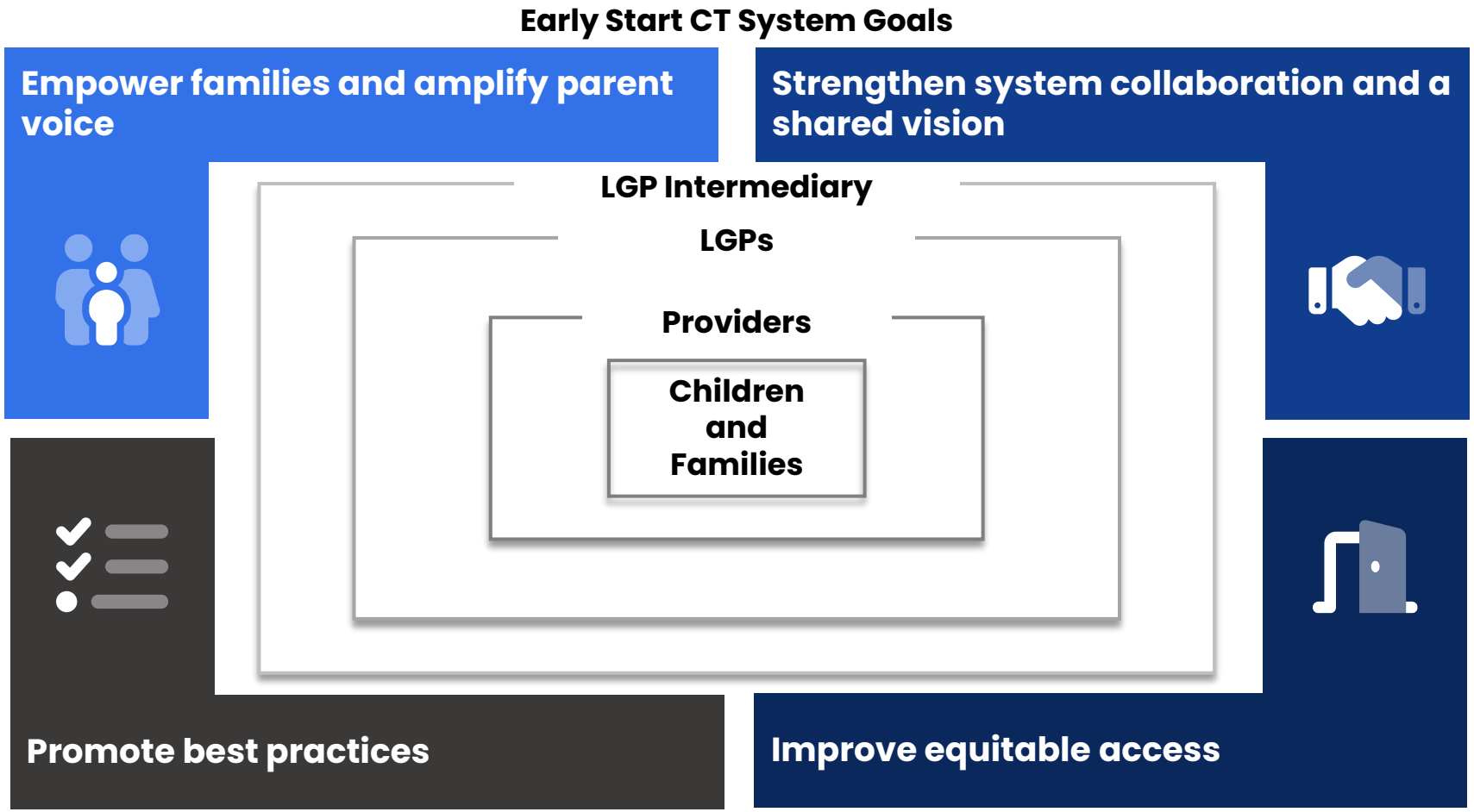
Supports Connecticut's economy and the early childhood workforce

Improves Affordability, Access, Quality

- **Expand Early Start CT child care options** for families
  - free for families making up to $100,000 per year *
  - 7% of the family's annual income maximum for families making more than $100,000
- **Increased rates for Early Start CT programs and school districts**
- **A trust fund** approach with sustainable funding and planful expansion
- **Builds on current local, state, federal funds/programs** to fill gaps, and extend the length of the day for working families
- **New Parent Portal** links parents to all Birth-5 Early Start options to best meet their needs. Data to help system expansion planning
- **Improves the whole system** with ECE workforce development, market rates, quality supports, and holds babies harmless

*Preschool children with IEPs are entitled to free and appropriate public education with services.

Early Start CT's Goals and System



PRELIMINARY DRAFT

Working towards our "north star"

OEC Vision Statement: All young children in Connecticut are safe, healthy, learning, and thriving. Each child is surrounded by a strong network of nurturing adults who deeply value the importance of the first years of a child's life and have the skills, knowledge, support, and passion to meet the unique needs of every child.

Early Start CT Local Governance Partners

- **Local Governance Partners** help to best **respond to diverse needs of their communities**
- Will use data to assess community needs and enable **data-informed decision-making**
- **Connect the OEC and local communities** to ensure **aligned goals and feedback loops** exist

BRP Goals

- **Workforce**
- **Equitable and affordable access**
- **Systems**
- **Funding**

PRELIMINARY DRAFT

Local Governance Partners (LGPs)

Local Governance Partners

High-level LGP and Liaison Responsibilities

Families	**Family Engagement** • Make engaging in early childhood decision-making and programming locally **accessible** to all parents • Serve as connector to help other stakeholders **meet family needs**
Early Start CT Programs	**Support & Monitoring** • LGP Liaisons act as coaches, mentors, and **support systems** – helping providers implement best practices • Conduct monitoring in a **supportive and transparent** way • Serve as point of connection to other OEC initiatives, including quality improvement initiatives and professional development
Community	**Community Engagement** • **Engagement of whole community**, beyond state-funded providers, and families in state-funded programs • **Serve as hub for** resources & communication about all early childhood services
OEC	**Reporting** • LGPs & Liaisons are the OEC's local experts – providing valuable information about **local context through communicating monitoring data and the community needs assessment data** to OEC

LGPs will Engage Families:

- Leverage Parent Ambassadors who will act as a trusted partners
- Develop family-centered programming and help families navigate the early childhood systems and build functional ECE networks
- Create intentional space for families at Community Table meetings

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LGPs will Engage Providers:

- Visit Early Start CT programs twice a year to support quality and assure compliance using a standardized template designed by OEC with input from the field
- Connect all providers to existing OEC resources, including quality improvement and professional development
- Fund professional development opportunities not currently offered by OEC, to meet the unique needs of providers and the community

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LGPs will Engage the Broader Community

- Create Community Table and convene stakeholders at least six times over the year through meetings or other activities to share updates, discuss challenges, form partnerships to take collaborative action on identified need, and celebrate wins
- Complete OEC's Local Needs Assessment with support from OEC and national consultants, including:
  - Pulling data for your specific town from sources shared by OEC
  - Responding to narrative questions with input from families, providers, and others
- Create a Community Plan, including:
  - Identifying gaps and trends related to young children and families based on the needs assessment
  - Implementing collaborative action steps and solutions to address the gaps identified

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Upcoming Dates

- January 15 at 1 pm – next Community Table meeting
  - Need “Elected & appointed officials” and “Homelessness liaison”
- February 2026: Mental Health workshop on Postpartum period
- March 2026: SPS Kindergarten Registration Process
- May 2026: Annual State of Early Childhood in So. Breakfast
- Spring 2026: ECCS conducts Community Needs Assessment
  - Will need SPS input
- Summer 2026: ECCS creates Community Plan
- Fall 2026: Competitive state-wide RFP process for State-funded Early Start childcare slots effective July 2027
  - Will SPS Apply for PreK slots in this or future cycles?

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Early Childhood Collaborative of Southington

Support the ECCS

- Volunteer for Community Table or Board
- Help with Community Needs Assessment
- Tell a young family or make referral
- Make a Donation
- Follow, Like, Share Us on Social Media
- Attend Workshops, Events or Fundraisers - www.southingtonearlychildhood.org/events/

ECCS
Early Childhood Collaborative of Southington

Questions?

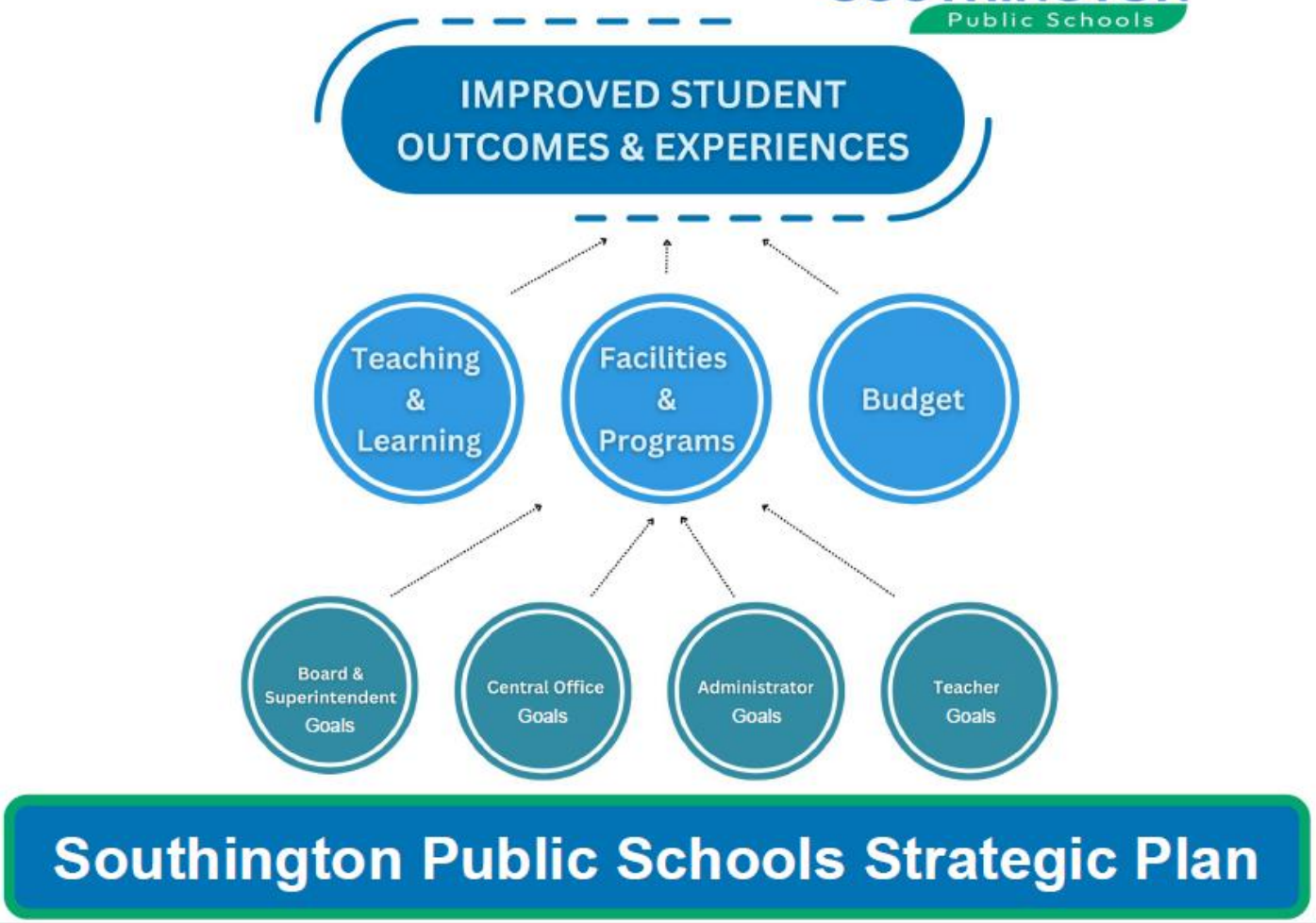
Joanne C. Kelleher
Executive Director
Early Childhood Collaborative of Southington
35 North Main, Box 10, Suite 3A-8, Southington, CT 06489
www.southingtonearlychildhood.org
facebook.com/ECCSouthington/
x.com/ecc_southington
instagram.com/eccsouthington
(860) 385-1665

ECCS
Early Childhood Collaborative of Southington

SOUTHINGTON
Public Schools

FY 2027
Superintendent's Proposed Budget

SOUTHINGTON
Public Schools



Presentation Organization

Board of Education Meeting, January 8, 2026

Purpose

- **Provide** historical context to past budgets including funding history
- **Evaluate** the fiscal environment in which the budget was crafted
- **Communicate** external and internal factors impacting our budget
- **Present** the FY27 Superintendent's Budget to the Southington Board of Education
- **Earn your support and commitment** in the budget process

Agenda

- Part I: Who We Are – Vision of a Graduate
- Part II: Budget Context
- Part III: FY27 Budget Preparation Process
- Part IV: FY27 Budget Overview and Analysis
- Part V: Next Steps

VISION

A graduate of the Southington Public Schools will be college or career ready and prepared for life beyond by mastering the knowledge and demonstrating the skills to communicate effectively, think creatively and critically, and contribute to the global community

21st Century Skills

Elementary Schools:

Walter Derynoski
Flanders
Hatton
Urbin T. Kelley
Zaya A. Oshana
South End
William Strong
Reuben E. Thalberg

Middle Schools:

Joseph A. DePaolo
John F. Kennedy

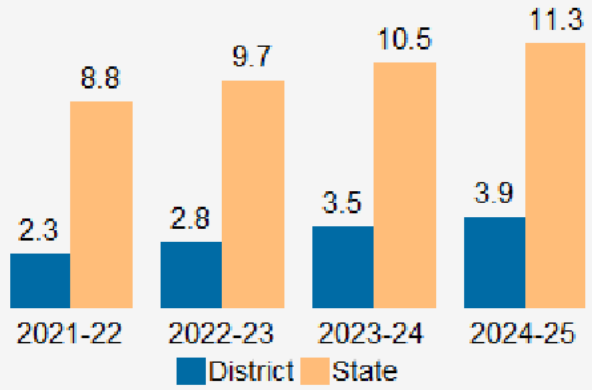
High Schools:

Southington High School
Karen Smith Academy

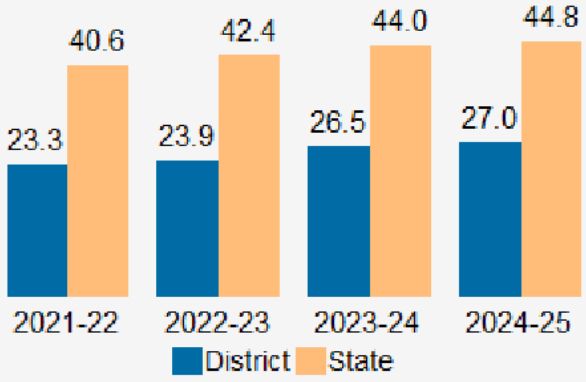
6,079 Student Population

(October 2025 PSIS Report)

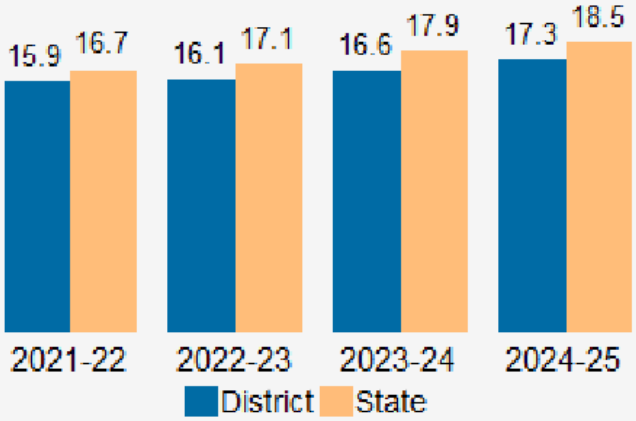
Percentage English Learners



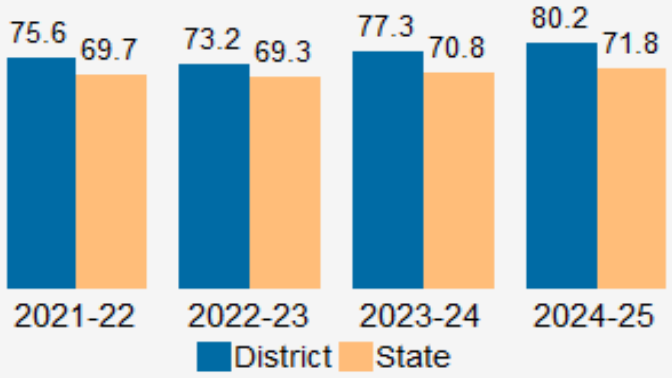
Percentage Eligible for Free/Reduced Price Meals

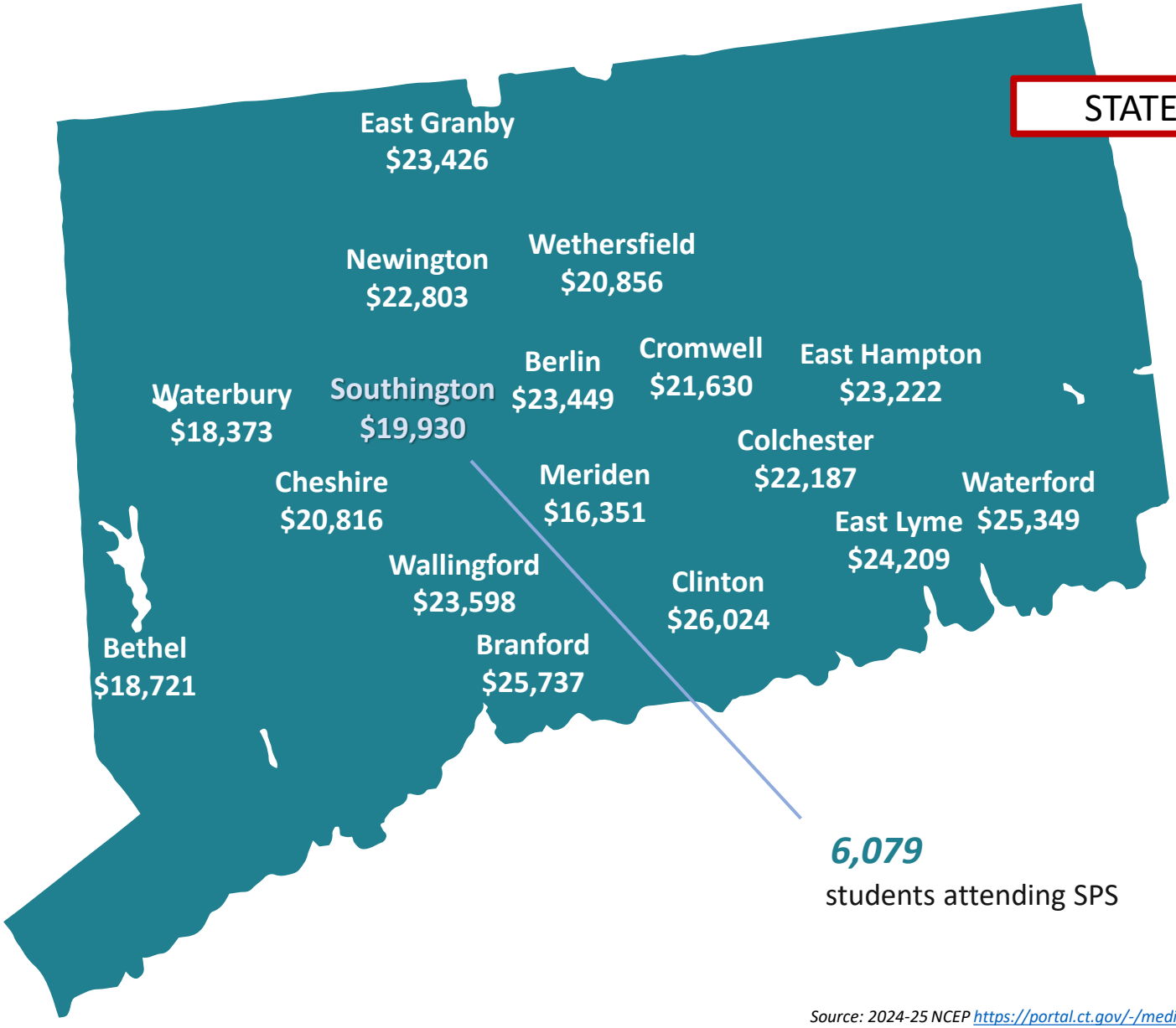


Percentage Students with Disabilities



Next Generation Accountability Index





STATE AVERAGE: $24,270

19.6% less

SPS spends 19.6% less than the state average

28th lowest

SPS has 28th lowest per pupil spending in the State of CT

6,079

students attending SPS

Source: 2024-25 NCEP https://portal.ct.gov/-/media/SDE/Grants-Management/Report1/basiccon_PDF.pdf
Document retrieved 01/08/2026

BOE % Budget Increases versus Mill Rate Increases
Past 5 Years

Fiscal Year	BOE Adopted Budget % Increases	Town Mill Rate Increase
FY21-22	0.29%	0.00
FY22-23	3.80%	0.10
FY23-24	5.79%	1.23
FY24-25	4.98%	1.08
FY25-26	5.12%	1.36*

* State mandated cap on motor vehicle mill rate. The 1.36 increase was shown by the Town without the effect of the motor vehicle cap.

Part III: Budget Preparation Process

Critical Path

October 15 – November 12, 2025

- Principals, Department Heads and Coordinators develop budget requests
- Consideration of new staffing requests to meet enrollment needs
- Compilation of per pupil allotments for supply lines
- Organization of contracted services, special projects and equipment
- Initial meetings held with Administrators, Superintendent, and Director of Business & Finance and Accounting Manager

November 14 – November 30, 2025

- Human Resource Manager to prepare all salary schedules
- Business Office to compile initial budget requests for review by Superintendent
- Meetings held with Superintendent, Assistant Superintendent and Director of Business & Finance and Accounting Manager

December 1 – January 7, 2026

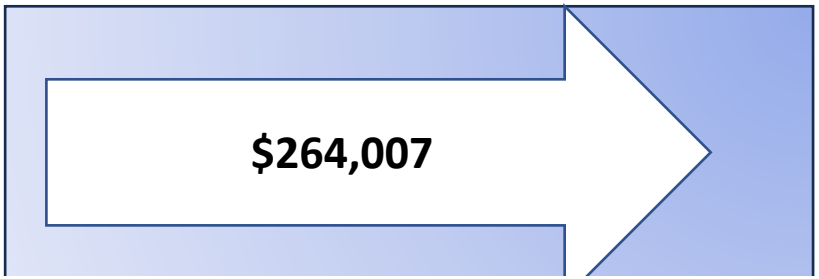
- Continued meetings with Superintendent, Assistant Superintendent and Business Office
- Adjust initial budget requests from 9.51% **to final 6.89%**
- Publish Superintendent's Proposed Budget Book

$133,489,270
9.51%

Administration's Budget Reductions and Adjustments Throughout the Process

- Eliminated all requests for new personnel (37 staff requests) totaling **$1,891,396**, except for 4.3 new staff requests.
- Reduced health insurance by **$402,608** based on the Board of Finance's recommended use of $500,00 reserves and updated consultant valuation
- Increased student insurance by **$85,240** (omitted from original starting figure)
- Increase special education out-of-town tuition by **$50,000**
- Reduced requested Extended School Year budget by **$10,000**
- Adjust calculation of para reduction calculation by **$10,692**
- Correct psychologist back to 0.5 Nexus funding - an increase of **$31,707**
- Reduced ASTE staff extra days to be funded by ASTE grant by **$22,540**
- Removed special education equipment, reducing **$51,707**
- School-based equipment was removed, reducing **$120,967**
- High school equipment removed except for EMT course costs, reducing **$36,826**
- DES special projects removed, reducing **$33,000**
- Building projects removed, reducing **$8,925**
- FES special projects removed, reducing **$9,576**
- Removed maintenance special project, reducing **$212,665**
- Removed all major projects and equipment, reducing **$564,052**
- Reduce guidance salary line using ASTE grant by **$3,573**

$130,299,074
6.89%



Administration's Budget Requests Proposed for Funding with Existing BOE NonLapsing Funds

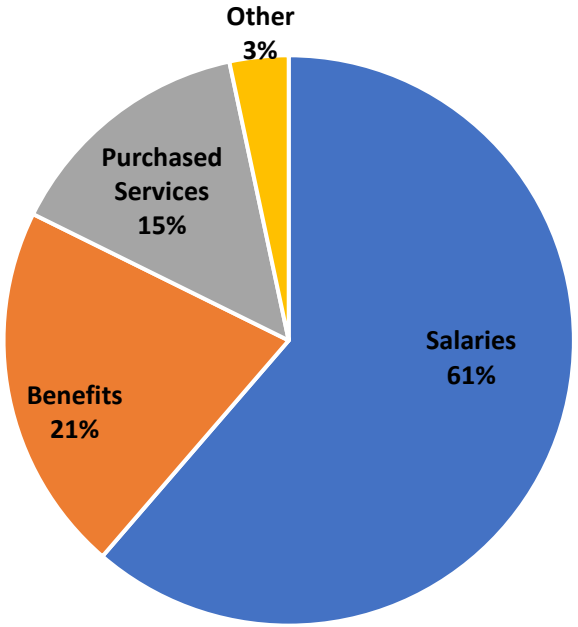
Description	FY20 Nonlapsing	FY21 Nonlapsing	FY24 Nonlapsing	FY25 Nonlapsing
Unallocated Balance	**30,000**	**92,015**	**17,000**	**124,992**
SHS Logo folding chairs for West Gym	(5,200) A	(2,000) A		
New Gymnastics Mats	(8,002)			
Start, Build, Spiral Up Phonics (A)	(9,797) B	(50,015) B		
Dollamur lightweight wrestling mats (B)	(7,001) C		(7,668) C	
Benchmark Preschool Curriculum		(40,000)		
2- Staff Room Refrigerators			(2,000)	
4- Magnetic Stirring Hot Plates			(2,226)	
Bailey ST-XL Pottery Wheel & Ergo Counter			(5,106)	
UltraFit Workout Mat Packs				(1,333)
Reconditioned industrial Treadmills				(8,000)
Portable team benches				(9,000)
Timeclock Proximity Scanners				(12,500)
Replacement of Jaces controllers				(15,800)
Art Room W280- Tackboard				(20,943)
Replace 12 cafeteria tables				(26,000)
Phonics Intervention Levels 1,2,3				(31,416)
Remaining Balance	**-**	**-**	**-**	**-**

(A) Total of Project is $7,200. Funding for this will be split between FY20 and FY21 nonlapsing accounts.
(B) Total of Project is $70,312. $10,500 funding will be from K4015. The remaining $59,812 of funding needed are split between FY20 and FY21 NL.
(C) Total of Project is $14,669. Funding for this will be split between FY20 and FY24 nonlapsing accounts.

Budget Summary FY26 to FY27			
FY26 Adopted Operating Budget	**FY27 Superintendent's Proposed Budget**	**$ Increase**	**% Increase**
$121,897,448	$130,299,074	$8,401,626	6.89%

Three Categories represent **96.66%** or $**125,943,266** of the Proposed FY27 Budget

Salaries	$79,913,133	61%
Benefits	$27,332,190	21%
Purchased Services	$18,697,943	15%



- New personnel is not included in the salary total

Salaries – Existing Personnel				
FY26 Adopted Operating Budget	**FY27 Superintendent's Proposed Budget**	**$ Increase**	**% Increase**	**Total Budget Change %**
$76,654,659	$79,913,133	$4,258,474	5.6%	50.7%

Budget Increases in Salary Totals	FY26	FY27	TOTAL INCREASE	% INCREASE
Increase Extended School Year Salaries	**$245,000**	**$400,000**	**$155,000**	**63.3%**
Return 4 Special Education Teachers to Operating Budget from Nexus Funds	**$0**	**$224,000**	**$224,000**	**100%**
Teacher Substitutes	**$598,000**	**$650,000**	**$52,000**	**8.7%**

New Personnel is not reflected in the Salary figures above

Salaries – Existing Personnel				
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New Personnel is not reflected in the Salary figures above

Salaries – New Personnel

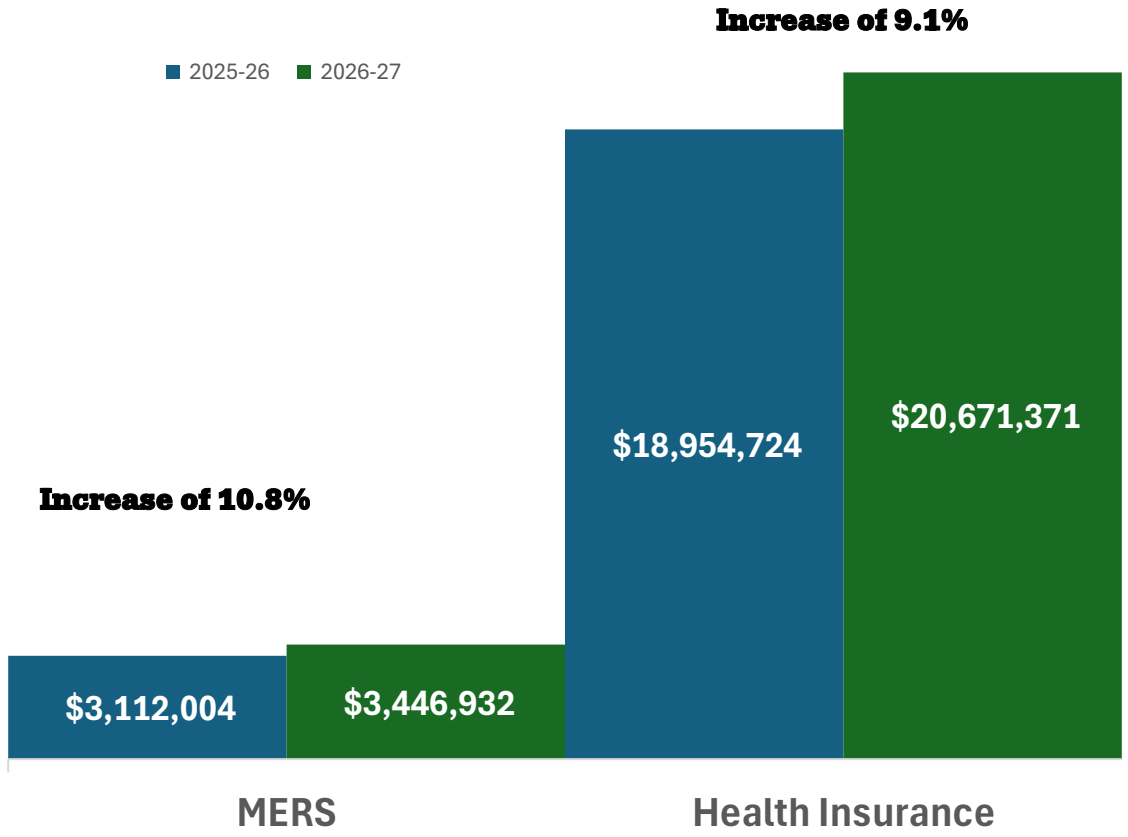
FTEs	Position Requested	Total Salary	Total Benefits	Total Salary & Benefits
1.0	Social Worker	82,792	1,200	83,992
1.0	Special Education Teacher	77,477	1,124	78,601
1.0	TESOL Teacher	67,358	977	68,335
1.0	Elementary Teacher for Class Sizes	60,611	879	61,490
0.3	HS Business Teacher - increase by 0.3 FTE	26,152	379	26,531
Stipend	Assistant HS Girls Golf Coach	3,800	55	3,855
Stipend	HS Counseling Office - Assistant Dept Leader	1,389	20	1,409
Extra Days	Extra Summer Days - Clerical	1,047	260	1,307
4.3	**Total Requested New Personnel with SS/Medicare**	**320,626**	**4,895**	**325,521**

Benefits Summary				
FY26 Adopted Operating Budget	**FY27 Superintendent's Proposed Budget**	**$ Increase**	**% Increase**	**Total Budget Change %**
$ 25,149,111	$27,332,190	$2,183,079	8.68%	26.0%

Item	FY26 Budget	FY27 Budget	Change	%
Health Insurance	$18,954,724	$20,671,371	$1,716,647	9.06%
Municipal Employee Retirement Fund*	$3,112,004	$3,446,932	$334,928	10.76%

**MERS has not released the Employer rates for FY27. The budget was prepared using a projected rate of 17.21%. We expect an update from the state the first week in February.*

Benefits Summary				
FY26 Adopted Operating Budget	FY27 Superintendent's Proposed Budget	$ Increase	% Increase	Total Budget Change %
$ 25,149,111	$27,332,190	$2,183,079	8.68%	26.0%



Student Transportation – Regular Ed, McKinney-Vento & Special Ed

FY26 Adopted Operating Budget	FY27 Superintendent's Proposed Budget	$ Increase	% Increase	Total Budget Change %
$6,823,392	$7,164,562	$341,170	5.0%	4.06%

- Entering Year 2 of a 3 Year Student Transportation contract.
- Actual cost will vary based on the number of bus routes
- The district currently has 27 McKinney-Vento students (with 2 currently outplaced) compared to 32 in the prior year.

Special Education
Outplaced Tuition & Diagnostic Center Tuition

FY26 Adopted Operating Budget	FY27 Superintendent's Proposed Budget	$ Increase	% Increase
$3,090,291	$3,760,000	$669,709	21.67%

	FY 26	FY27	$ Increase
Outplaced Tuitions	$2,890,291	$3,550,000	$659,709
Diagnostic Center	$200,000	$210,000	$10,000

- Budget FY27 Outplaced Tuition for students with known outplacements in December of Current Year
- Budget is Net of Anticipated Special Education Excess Cost Grant Revenue at 65% (after 4.5x of Net Current Expenditures Per Pupil (NCEP))
- Budget has been reduced to reflect projected excess cost grant revenues for students in internal (Southington) programs of $200,000

TECHNOLOGY – EQUIPMENT PURCHASES A/C 54400				
FY26 Adopted Operating Budget	**FY27 Superintendent's Proposed Budget**	**$ Increase**	**% Increase**	**Total Budget Change %**
$630,724	$680,130	$49,406	7.83%	0.59%

- Technology Replacement Cycle for:
  - Staff Devices
    - Quantity 160 for staff
    - Total Cost $159,430 (Unit Cost approx. $996)
  - Student ChromeBooks
    - Quantity 1,575: 1,500 for students and 75 staff
    - Total Cost $492,200 (Unit Cost approx. $312)
  - Tariffs and price increases may impact the budget requests above

Technology Replacement Cycle – Staff Devices

Staff Laptops

	25-26	26-27	27-28	28-29	29-30	30-31	31-32
FES / 8 SHS Dept				160 Laptops			
FES/JAD/JFK					160 Laptops		
OES, SEES, KSA, Maint, Admins, SHS 5 Dept	160 Laptops					160 Laptops	
HES, TES, KES, SHS 5 Dept		160 Laptops					160 Laptops
DES, SES, BOE, SHS 2 Dept			160 Laptops				

Technology Replacement Cycle – Student Chromebooks

Student Chromebooks

	25-26	26-27	27-28	28-29	29-30	30-31
K (summer)			Replace 26-27 10			Replace 29-30 12
1 (summer)			Replace 25-26 7		Replace 28-29 12	
2 KSA? (summer)		Replace 25-26 10		Replace 27-28 12		
3 (summer)	575 New $154,546	575 New $159,430	575 New $167,156	575 New $173,843	575 New $180,796	575 New $188,028
4						
5						
6						
7 (fall)	575 New $154,546	575 New $159,430	575 New $167,156	575 New $173,843	575 New $180,796	575 New $188,028
8 (once)						
9						
10 (fall)	575 New $154,546	575 New $159,430	575 New $167,156	575 New $173,843	575 New $180,796	575 New $188,028
11						
12		EOL				

TITLE I FEDERAL GRANT FUNDING

Federal Title I funding is related to the estimated number of children ages 5-17 reported as living in poverty levels in a district. Southington's poverty per the SAIPE (see US Census) has dropped below 5% in recent years. When poverty is under 5%, certain parts of Title I funding are not available to the district which has resulted in unexpected reductions to our Title I funding in recent years.

TITLE I FUNDING	Grant Funds (Notice Amount received in October)
FY 20-21	$546,243
FY 21-22	$554,527
FY 22-23	**$297,595**
FY 23-24	$398,852
FY 24-25	**$213,792**
FY 25-26	$238,607

Consistent with FY 26, FY 27 budget was prepared using no funding from Title I

One Time Funding Projects Proposed for Capital Alternate Funding

DISTRICTWIDE		
Required Indoor Air Quality (HVAC) Assessment- (3 Schools) YR 2 of 5	$	98,000
Required PCB Monitoring (Annual)	$	5,000
Replace Automatic External Defibrillators (QTY 2)	$	4,200
TOTAL ONE-TIME FUNDING REQUESTS	**$**	**107,200**

NOTE: These projects and equipment are not included in the operating budget but requested to be considered for one time funding as was done in the prior budget season.

IMPORTANT BUDGET DATES

Board of Education Workshops:

- Tuesday, January 13, 2026 @ 7pm, Municipal Center
- Thursday, January 15, 2026@ 7pm, Municipal Center

Board of Finance Meetings and Workshops

- Wednesday, February 18, 2026 @ 6:30, Presentation of BOE's adopted budget to Board of Finance
- Monday, March 2, 2026 DePaolo Middle School @ 7:00pm, Public Hearing on the Town Manager and BOE Proposed Budget
- BOF Workshops – March 4th and 11th (if needed), 6:30 Town Hall Lower Conference Room
- March 25, 2026 @ 7pm Board of Finance Recommends FY 2025-2026 (including BOE) , Council Chambers

Town Council Meetings

- Monday, April 27, 2026 @ 7pm, Municipal Center, Town Council Public Hearing on Budget
- Monday, May 11, 2026 @ 7pm, Municipal Center, Town Council Adopts 2026-2027 Budget
- Thursday, May 21, 2026, BOE anticipates adopting final budget