Carlisle Public Schools
SECOND-GRADE CURRICULUM OVERVIEW

Mission and Vision of the Carlisle Public Schools

Carlisle Public Schools cultivate balanced learners who can stand confidently with one foot in the field and the other in the future.

We create a nurturing and individualized experience for our students and highly value personal relationships. We prioritize social-emotional and physical health. We include a project-based approach to help students develop their knowledge, skills, and interests. We provide multiple ways for students to demonstrate understanding and mastery, de-emphasizing state standardized assessments. Students engage in the classroom and in the community, with educators, local experts, and Carlisle's natural resources to understand how their studies can be applied to civic life to help solve local and global problems. We break down barriers between traditional subjects and create opportunities for students to develop their understanding of the world and extend their perspective and thinking beyond our town borders.

A CPS GRADUATE IS:

- A resilient and adaptable **lifelong learner** who is empowered to pursue their interests.
- A self-aware and **reflective individual** who takes responsibility for their actions, outcomes and learning**.**
- A caring, kind and engaged **global citizen** who works to forward identified goals.*
- An **advocate for social justice** who acts with skill and courage against prejudice and towards equity.
- A creative and competent **problem solver**, appreciative of diverse thinking**.**
- An **independent thinker**, willing to question the status quo and weigh the evidence.
- An **effective communicator & collaborator** who can work with diverse teams, listen and articulate thoughts and ideas persuasively.

*Current goals are aligned with UN Sustainable Development goals.

Core Values:

Academic Excellence Creativity Respect Responsibility

A fuller expression of these values would include . . .
We always look beyond what we now know.
We constantly work to know more.
We are respectful toward all in our community.

We use what we know to help others.
We take responsibility for ourselves and for others.

Goals of Carlisle Public Schools

Goal 1: ***Provide A Rich Curriculum In Order To Maximize Student Learning***
The District will assess the curriculum through review cycles and will foster vertical and horizontal articulation and implementation in curriculum, assessment, and instructional practices. The District will continue to work toward aligning the Carlisle and Concord curricula. Our staff development plan, grounded in a professional learning community based on best practices, will lead to ongoing student assessment and differentiated instruction to meet the needs of all Carlisle students and prepare them for high school and for a global community.

1. Continue the process of curriculum review, alignment, and improvement
2. Support the implementation of our selected anti-bullying curriculum Olweus, and identify and implement a more formal social-emotional curriculum.
3. Continue to enhance the instructional practices of professionals to meet the needs of all learners.
4. Investigate and identify opportunities for our students to develop their 'global perspective.

Goal 2: ***Build a Community of Respect in a Safe and Healthy Learning Environment***
The district will promote and maintain an inclusive, safe, and respectful environment that fosters leadership and healthy living. The administration, staff, and students will engage in honest and open dialogues to further encourage the development of a culture of trust and respect.

1. Develop a strong and effective district leadership team.
2. Use data to inform our work in identifying and implementing additional strategies to enhance the social and emotional environment of our school.
3. Evaluate best practices for the delivery of social-emotional and academic support services.
4. Continue to work collaboratively with our community partners to enhance and strengthen relationships and communication.

Goal 3: ***Integrate Technology***
The district will integrate technology into the curriculum. Staff development opportunities will be provided to encourage the integration of technology into units of study to support student achievement and proficiency.

1. Use data to evaluate how our current instructional integration of technology aligns with the SAMR (Substitution, Augmentation, Modification, and Redefinition) model and identify necessary supports to encourage movement along the continuum.
2. Develop a 3-year plan for instructional technology support and integration.
3. Create and support further opportunities for technology integration professional development for all faculty and staff.

Goal 4: ***Meet Space Needs and Manage the Resources of the Carlisle Public Schools***
The district will work closely with the town to meet the space needs of the staff and students at Carlisle Public Schools. The district will promote efficient management of CPS resources.

1. Develop a fiscally responsible FY18 Budget that continues to provide the resources needed for an excellent education for Carlisle students, while successfully maintaining the town approved 2017-2018 budget.
2. Assess the future impact of projected declining enrollments and design options to address findings.
3. Assess the current and future facility needs of the district, and develop a plan to address those needs.
4. Explore use of social media to communicate with parents and staff.

Second-Grade Language Arts Curriculum

Following the Massachusetts Curriculum Frameworks, the Carlisle Grade Two English Language Arts Curriculum builds upon the strong foundation of the first grade curriculum. Using a variety of phonics, reading, and writing curriculums second grade students further develop and enhance their ELA skills.

Fundations is a multisensory and systematic approach to teaching phonics and spelling patterns. Grade two students have been exposed to Fundations at the Kindergarten and Grade one level. The following offers a brief overview of the Grade two Fundations Program:

Foundational Skills (Fundations)
Phonics and Word Recognition
1. Know and apply grade-level phonics and word analysis skills in decoding words.
    a. Distinguish long and short vowels when reading regularly spelled one-syllable words.
    b. Know spelling-sound correspondences for additional common vowel teams.
    c. Decode regularly spelled two-syllable words with long vowels.

d. Decode words with common prefixes and suffixes
e. Identify words with inconsistent but common spelling-sound correspondences.
f. Recognize and read grade-appropriate irregularly spelled words.

2. Fluency - Read with sufficient accuracy and fluency to support comprehension.
a. Read grade-level text with purpose and understanding.
b. Read grade-level text orally with accuracy, appropriate rate, and expression on successive readings.
c. Use context to confirm or self-correct word recognition and understanding, rereading as necessary.

Reading

Currently students in grade two are taught reading using the Lucy Calkins Units of Teaching Reading. Students are taught using a Guided Reading approach using whole class mini-lessons, small groups and working individually to meet students where they are in their reading development.

As described by Lucy Calkins and Heinemann Publishers: "The first unit, ***Second-Grade Reading Growth Spurt***, teaches children to take charge of their reading, drawing on everything they know to figure out hard words, understand author's craft, and build big ideas about the books they read. Children learn that books can be their teachers in the second unit, ***Becoming Experts: Reading Nonfiction***, in which they learn more about familiar topics and grow understanding of new topics while working on word solving, vocabulary development, and comparing and contrasting information across texts. In the third unit, ***Bigger Books Mean Amping Up Reading Power***, children learn strategies to build three foundational reading skills—fluency, understanding figurative language, and comprehension. In the final unit for second grade, ***Series Book Clubs***, children work within book clubs to study author's craft to understand ways authors use word choice, figurative language, punctuation, and even patterns to construct a series and evoke feelings in readers."

Massachusetts Curriculum Frameworks for Reading:

<u>Reading Standards for Literature</u>

Key Ideas and Details

1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
2. Retell stories, including fables and folktales from diverse cultures, and determine their central message, lesson, or moral.
3. Describe how characters in a story respond to major events and challenges.

Craft and Structure

4. Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.
5. Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.
6. Explain what dialogue is and how it can reveal characters' thoughts and perspectives.

Integration of Knowledge and Ideas

7. Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.
8. Compare and contrast two or more versions of the same story (e.g., Cinderella stories) by different authors or from different cultures.

Range of Reading and Level of Text Complexity

9. Independently and proficiently read and comprehend literary texts representing a variety of genres, cultures, and perspectives and exhibiting complexity appropriate for at least grade 2.

<u>Reading Standards for Informational Text</u>

Key Ideas and Details

1. Ask and answer such questions as who, what, where, when, why, and how to demonstrate understanding of key details in a text.
2. Identify the main topic of a multiparagraph text as well as the focus of specific paragraphs within the text.
3. Describe the connection between a series of historical events, scientific ideas or concepts, mathematical ideas or concepts, or steps in technical procedures in a text.

Craft and Structure

4. Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area.
5. Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.
6. Identify the main purpose of a text, including what the author wants to answer, explain, or describe.

Integration of Knowledge and Ideas

7. Explain how specific images (e.g., a diagram showing how a machine works) contribute to and clarify a text.
8. Describe how reasons support specific points the author makes in a text.
9. Compare and contrast the most important points presented by two texts on the same topic.

Range of Reading and Level of Text Complexity

10. Independently and proficiently read and comprehend informational texts, including history/social studies, science, mathematical, and technical texts, exhibiting complexity appropriate for at least grade 2.

Writing
Currently students in grade two are taught writing using the Units of Study in Opinion, Information, Narrative Writing, and Poetry. Students are taught using a Writer's Workshop approach using whole class mini-lessons, small groups and working individually to meet students where they are in their writing development.

As described by Lucy Calkins and Heinemann Publishers:
This series invites second-graders into author studies that help them craft powerful true stories, science investigations and lab reports, and finally, into some very grown-up writing about reading. Across the writing genres, children learn to understand—and apply to their own writing—techniques they discover in the work of published authors. In ***Lessons from the Masters: Improving Narrative Writing*** students learn how to create engaging narratives by stretching out small moments and writing in detail. **Unit 2, *Lab Reports and Science Books***, uses inspirational nonfiction texts to help students design and write about experiments and other scientific information. **Unit 3, *Writing About Reading***, has students read closely and gather evidence from texts to craft persuasive arguments. The final unit, ***Poetry: Big Thoughts in Small Packages*** helps children explore and savor language. Students learn to use line breaks to express the meaning and rhythm they intend and use visualization and figures of speech to make their writing more clear and powerful.

Writing through Research:
Second grade students are exposed to writing experiences through the Units of Study as well as other curriculum projects including learning research skills through the study of erosion, weathering, bats, and Alaska. Students create brochures, posters, and digital presentations to teach their readers information they have learned. Students also research and present information through an Independent Inquiry Project.

Massachusetts Curriculum Frameworks for Writing:

1. Write opinion pieces that introduce the topic or book they are writing about, state an opinion, supply reasons that support the opinion, use linking words (e.g., because, and, also) to connect opinion and reasons, and provide a concluding statement or section. In math, instead of writing opinions, students write or draw solutions to math word problems and present arguments to explain their thinking.
2. Write informative/explanatory texts that introduce a topic, use facts and definitions to develop points, and provide a concluding statement or section.
3. Write narratives in prose or poem form that recount a well-elaborated event or experience, or a set of events or experiences; include details and dialogue to show actions, thoughts, and feelings; use temporal words to signal order where appropriate; and provide a sense of closure.

a. For poems, use words and phrases that form patterns of sounds (e.g., regular beats, alliteration, end rhymes, repeated sounds in words or lines) to create structure.

Production and Distribution of Writing

4. Produce writing in which the development and organization are appropriate to task, purpose, and audience

5. With guidance and support from adults and peers, focus on a topic and strengthen writing as needed by revising and editing.

a. Demonstrate the ability to choose and use appropriate vocabulary

6. With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

Research to Build and Support Knowledge

7. Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

8. Recall information from experiences or gather information from provided sources to answer a question.

9. Write routinely for a range of tasks, purposes, and audiences.

Speaking and Listening:

As noted in the Massachusetts Curriculum Frameworks for Speaking and Listening, second grade students will participate in collaborative conversations with peers and adults about a variety of topics.

Massachusetts Curriculum Frameworks for Speaking and Listening
Comprehension and Collaboration and Language:

1. Participate in collaborative conversations with diverse partners about grade 2 topics and texts with peers and adults in small and larger groups.

a. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).

b. Build on others' talk in conversations by linking their comments to the remarks of others.

c. Ask for clarification and further explanation as needed about the topics and texts under discussion.

2. Recount or describe key ideas or details from a text read aloud or information presented orally or through other media.

3. Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

4. Tell a story, recount an experience, or explain how to solve a mathematical problem with appropriate facts and relevant, descriptive details, speaking audibly in coherent sentences and using appropriate vocabulary.
5. Create audio recordings of stories or poems; add drawings or other visual displays to stories or descriptions of experiences when appropriate to clarify ideas, thoughts, and feelings.
6. Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Language

Conventions of Standard English
1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking; retain and further develop language skills learned in previous grades.
Sentence Structure and Meaning

a. Produce and expand complete simple and compound declarative, interrogative, imperative, and exclamatory sentences and choose among sentence types depending on the meaning to be conveyed.

b. Use adjectives and adverbs in sentences and choose between them depending on what is to be modified.

Word Usage

c. Use collective nouns and frequently occurring irregular plural nouns.

d. Use reflexive pronouns.

e. Form and use the past tense of frequently occurring irregular verbs.

2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

a. Print upper- and lowercase letters legibly and fluently.

b. Capitalize holidays, product names, and geographic names.

c. Use commas in greetings and closings of letters.

d. Use an apostrophe to form contractions and frequently occurring possessives.

e. Generalize learned spelling patterns when writing words (e.g., cage → badge; boy → boil).

f. Consult reference materials, including beginning dictionaries, as needed to check and correct spellings.

g. Demonstrate understanding that context determines whether the writer uses a numeral or a written number

Knowledge of Language

3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.

a. Compare formal and informal uses of English.

Vocabulary Acquisition and Use

4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 2 reading and content, choosing flexibly from an array of strategies.
    a. Use sentence-level context as a clue to the meaning of a word or phrase.
    b. Determine the meaning of the new word formed when a known prefix is added to a known word (e.g., happy/unhappy, tell/retell).
    c. Use a known root word as a clue to the meaning of an unknown word with the same root (e.g., addition, additional).
    d. Use knowledge of the meaning of individual words to predict the meaning of compound words (e.g., birdhouse, lighthouse, housefly; bookshelf, notebook, bookmark).
    e. Use glossaries and beginning dictionaries, both print and digital, to determine or clarify the meaning of words and phrases.
    f. Recognize and use appropriately abbreviations related to grade-level content or commonly used in everyday life (e.g., a.m., p.m.)
    g. Recognize and use appropriately symbols related to grade-level content or commonly used in everyday life (e.g., $, ¢).
5. Demonstrate understanding of word relationships and nuances in word meanings.
    a. Identify real-life connections between words and their use (e.g., describe foods that are spicy or juicy).
    b. Distinguish shades of meaning among closely related verbs (e.g., toss, throw, hurl) and closely related adjectives (e.g., thin, slender, skinny, scrawny).
6. Use words and phrases acquired through conversations, activities in the grade 2 curriculum, reading and being read to, and responding to texts, including using adjectives and adverbs to describe.

Second-Grade Mathematics Curriculum

In Carlisle's grade two, we believe that the most productive classrooms are those in which students are working on complex problems, taking risks, embracing struggles, and feeling productive about their problem-solving skills. Second graders primarily use the Everyday Mathematics Program. Second graders have multiple opportunities to learn and build on the concepts and skills in each of the mathematical strands. We currently instruct students using a Guided Math approach to learning. Following whole class instruction students work in small groups or independently to further their understanding of concepts taught.

Students explore and investigate new concepts by using concrete objects, visual models, drawings, and/or representations to build their understanding. They are asked to solve a diverse

set of real-world and other mathematical problems using multiple methods both in collaboration with their peers and independently. Students are given frequent opportunities to discuss and write about various approaches to solving problems.

The second-grade math curriculum is based on the 2017 Massachusetts Curriculum Frameworks along with the Standards for Mathematical Practice. The Standards for Mathematical Practice describe expertise that students should seek to develop as well as ways in which to engage with the subject matter as they grow in mathematical maturity.

The standards include:
1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

The following components are used as further guidelines:
· Conceptual understanding – make sense, and reason, and understand math concepts and ideas
· Procedural fluency – know mathematical facts, compute and perform the math
· Capacity – solve a wide range of problems in various contexts by reasoning, thinking, and applying the mathematics they have learned
While students master these underlying components and their relationships, they lay a foundation for higher-level mathematics, strengthen their capacity for thinking logically and rigorously, and develop an appreciation for the beauty of math.

Operations and Algebraic Thinking
A. Represent and solve problems involving addition and subtraction.
B. Add and subtract within 20.
C. Work with equal groups of objects to gain foundations for multiplication.

Number and Operations in Base Ten
A. Understand place value.
B. Use place value understanding and properties of operations to add and subtract.

Measurement and Data
A. Measure lengths indirectly and by iterating length units.

B. Relate addition and subtraction to length.
C. Work with time and money.
D. Represent and interpret data.

Geometry
A. Reason with shapes and their attributes.

Second-Grade Science Curriculum

Carlisle's Grade Two Science Education is based on the 2016 Massachusetts Science/Technology/Engineering standards which are an adaptation of the Next Generation Science Standards. Examples of our learning include:

Earth Science
2-ESS2-4(MA). Observe how blowing wind and flowing water can move Earth materials from one place to another and change the shape of a landform.

Clarification Statement: • Examples of types of landforms can include hills, valleys, river banks, and dunes.

In Carlisle, second graders are exposed to erosion/weathering through our Researcher's Workshop units. Previous to Covid, students went on a field trip to Joppa Flats on Plum Island, Newburyport. Students witnessed the results of erosion to the shore line of the beach and planted sea-grass to help combat erosion. We also learn about the formation of the Grand Canyon, sea stacks, hoodoos, and all of the various landforms in Alaska and across the world.

Life Science
LS2. Ecosystems: Interactions, Energy, and Dynamics 2-LS2-3(MA). Develop and use models to compare how plants and animals depend on their surroundings and other living things to meet their needs in the places they live.

Clarification Statement: • Animals need food, water, air, shelter, and favorable temperature; plants need sufficient light, water, minerals, favorable temperature, and animals or other mechanisms to disperse seeds.

As part of our Bat Research Unit, students learn how bats adapt to their environment. During our Alaska Research Unit, students also learn how plants and animals have adapted to their surroundings given their extreme temperatures.

Physical Science
PS3. Energy 2-PS3-1(MA). Design and conduct an experiment to show the effects of friction on the relative temperature and speed of objects that rub against each other. Clarification Statements: • Examples could include an object sliding on rough vs. smooth surfaces. • Observations of temperature and speed should be qualitative.

As part of our Forces and Motion Writing Unit, students are exposed to experiments using friction where we use a ramp, a small car, and a smooth and/or rough surface to see how far the car will travel. Students learn how to write "Lab Reports" and conduct multiple trials to gather evidence for their hypothesis.

Second-Grade Social Studies Curriculum

Carlisle's second grade Social Studies Curriculum meets the standards as outlined in the 2018 History and Social Science Framework. Examples of our learning in the Topics are below.

Grade 2 Global Geography: Places and Peoples, Cultures and Resources

Grade 2 History and Social Science Topics
Topic 1. Reading and making maps
In our Map Skills unit, students are taught map components such as Compass Rose, Scale, Key, and Map Projections such as, Mercator and Gall-Peters, and a globe. Students are also taught the physical differences in the size and shape of landforms using the Mercator and Gall-Peters projections. Students also learn more about the continents, oceans, rivers, lakes, and mountains.
Topic 2. Geography and its effects on people
In our Continents, Oceans, and Rivers and Mountains Unit, students are exposed to all of the seven continents, five oceans, and the major river and mountain ranges. Students learn why humans live near bodies of water and how they adapt to the environment. They also learn the importance of water to our planet.
Topic 3. History: migrations and cultures
In our Migration Unit, students are taught the differences between immigrants and refugees and why people move from one country to another. Students learn the difference between a "Pull Factor"- reasons why people are attracted to another country and a "Push Factor"reasons why

-people are forced from their current location. Students conduct interviews with family members to learn more about where their families are from and what attracted them to Massachusetts.

Topic 4. Civics: countries and governments

Students learn the differences between political and physical geography. Second graders also learn the characteristics that make up a country such as type of government, leaders, languages, culture, etc.

Topic 5. Economics: resources and choices

Using our Alaska Unit, students learn about the natural resources, industries, and jobs available to the people of Alaska.

Second-Grade Special Projects/Events

- You are Someone Special Flower Project
- Field Trips to Clark Farm, Joppa Flats-Newburyport, Museum of Science
- Alaska Research Project
- Family Interview
- Mass Audubon Visit at school