



International School of Djibouti

Curriculum Overview

Grades 1-8

2021-2022

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Dear Parents and Guardians,

We are grateful that you have chosen to entrust us with your child's education. At ISD, we take this responsibility of educating our students seriously. Our mission statement reflects that our goal is to prepare students for the world beyond the walls of ISD:

ISD exists to provide world-class education in English to develop creative, problem-solving, noble-hearted, global citizens.

With this mission in mind, we continuously seek ways to improve our instructional program so that when our students leave, they will be prepared for the next step, wherever in the world that might be.

Because our ISD families come from a variety of backgrounds and educational systems, we have created this guide to walk parents through our curriculum, which forms the foundation of our instructional program. We feel that parents are an integral partner in a child's education, and when families know what their students are learning, they can offer support at home that will only enhance a child's educational experience.

This guide will walk families through a general overview of ISD's curriculum and also includes grade-specific information about what is taught at each level. Parents can review what skills or units are addressed in each grade, as well as competencies that teachers are working towards for each grade level.

We thank you for taking the time to ask questions and seek information about your child's education.

Sincerely,

ISD Administration

Our Curriculum: An Introduction

What does it mean that ISD is an American-curriculum school?

While many countries' education systems rely on a strong nationalized program, the education system in the United States functions differently. While there are overall expectations that must be met at the national level, most decisions are made at the state, local, and school level. Consequently, this means that two students in the same grade level in two different schools could be studying different content at the same time. Rather than following one set curriculum, schools are instead expected to meet certain standards, or curricular competencies, by the end of each academic year. Decisions about how to help students meet the rigorous standards are left to the people who know students' academic needs best: individual schools and teachers, with parents.

ISD uses a curriculum that is aligned with U.S. curricular standards, meaning that our students have the same high expectations set for all students in the U.S. At the same time, we know that our students have a variety of needs, such as English language acquisition, so we consider these needs first as we select our curriculum and as teachers design instruction.

What curriculum is used by teachers at ISD?

Historically, ISD has used Calvert Education, an accredited U.S.-based curriculum, in the areas of ELA, math, science, and social studies. Calvert Education aligns its curriculum according to state-based standards and standards established by educational organizations such as the National Council for Teachers of Mathematics (NCTM), Nation Council for Teachers of English (NCTE), National Council for Teachers of Social Studies (NCSS), and National Science Teachers Association (NSTA). The Calvert curriculum has been implemented at some level at all grades, for preschool through high school students. At the same time, following similar practices in U.S. schools, teachers have been given freedom to bring in their areas of expertise and modify the curriculum based on students' needs in their individual classrooms. You can find more information about Calvert Education here:

<https://www.calverteducation.com/>

This school year, administrators began a curriculum review process and chose to pilot a new curriculum in the areas of science and social studies. The decision was made to retain the Calvert Education ELA and math curriculum. For science and social studies, teachers have begun using the Core Knowledge Sequence, a knowledge-based approach developed by Ed Hirsch and the Core Knowledge Foundation. Recent research shows that literacy improves as students obtain more background knowledge on a variety of subjects, and the Core Knowledge Sequence is designed to provide students with such background knowledge that colleges and universities expect students to have upon entering. The Sequence is vertically-aligned, meaning that it has been designed so that students do not unnecessarily repeat content at different grade levels, thus getting a more comprehensive overview of the content. In addition, the curriculum is free, and all students materials can be downloaded by parents at the following link:

<https://www.coreknowledge.org/curriculum/download-curriculum/>

[DRAFT VERSION]

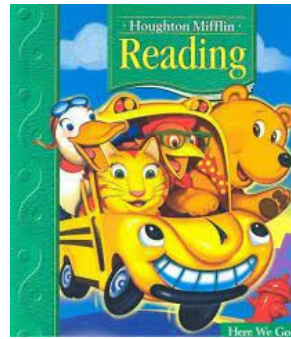
Curriculum in the Core Content Areas

Features of instruction in the content areas

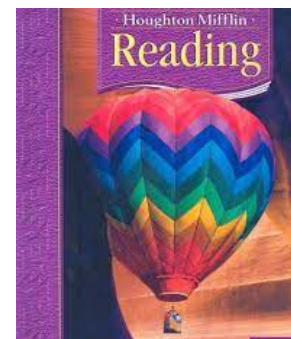
Sample Texts

ELA

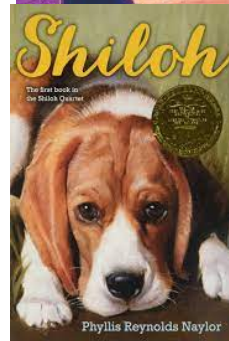
- Calvert Education curriculum
- 1.5 hours minimum of instruction each day
- Skills-based approach, meaning students learn skills that are reinforced and enhanced throughout the years with increasingly complex texts.
- The youngest grades focus on foundational literacy skills, such as letter identification and formation, and then move on to phonics instruction.
- Students who can read independently focus on skills improvement through reading shorter selections in Houghton Mifflin grade-level reading textbooks.
- Beginning in 4th grade, reading instruction is centered on grade-appropriate novels, poetry, and plays.
- Students receive additional grammar and writing instruction that complements reading instruction.
- Students have weekly spelling words.
- Students work towards mastery of grade-appropriate competencies, listed in our grade-by-grade breakdown in this guide.
- Teachers modify and adapt lessons to meet students at their language level and set goals that move English Language Learners toward grade-level instruction in English.



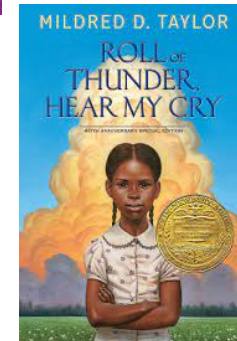
Here We Go!
Grade 1 Textbook
Houghton Mifflin
Reading Series



Horizons
Grade 3 Textbook
Houghton Mifflin
Reading Series



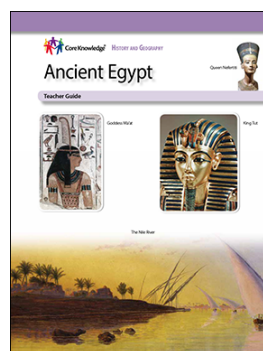
Grade 5 Novel



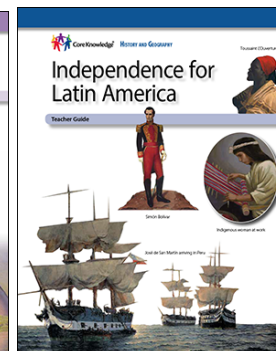
Grade 7 Novel

Social Studies

- Core Knowledge curriculum
- 1.5 hours of instruction 2-3 days per week
- Knowledge-based approach, meaning students learn specific content to build background knowledge
- Students learn new content each school year that builds on content that came before.
- Content competencies can be found in this guide in the grade-by-grade breakdown.
- To complement content taught in class, parents can download Student Readers from the Core Knowledge website.



Grade 1
Sample Student Reader

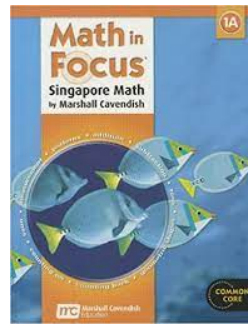


Grade 6
Sample Student Reader

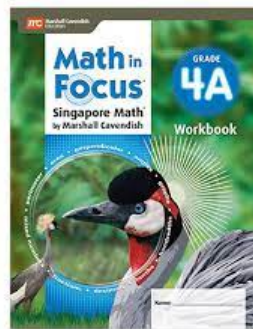
<https://www.coreknowledge.org/curriculum/download-curriculum/>
To download all student readers for each grade level

Math

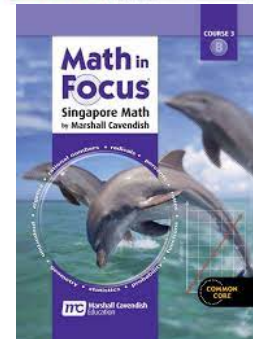
- Calvert Education curriculum
- 1.5 hours of instruction each day
- Skills-based approach, meaning students learn skills that are reinforced, enhanced, and built upon throughout the years with increasing complexity.
- Uses the *Math in Focus* textbook series for Grades 1-8 for a vertically-aligned curriculum.
- Uses the Singapore Math method introduced to U.S. schools in the 1990s, based upon methodology taught in Singapore schools, which consistently rank at the top of international math testing.
- Students focus on real-world problem solving in each unit of study.
- Students work towards mastery of grade-appropriate competencies, listed in our grade-by-grade breakdown in this guide.
- Teachers work to fill in gaps in math instruction, reteaching concepts as needed to meet students at their instructional level.
- Teachers supplement content area instruction with language goals to help English Language Learners learn academic language in math.



***Math in Focus*
Singapore Math
by Marshall Cavendish
Grade 1, Part A**



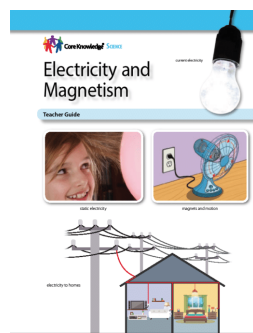
***Math in Focus*
Singapore Math
by Marshall Cavendish
Grade 4, Part A
Workbook**



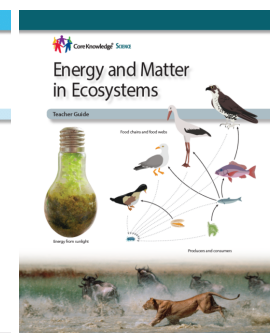
***Math in Focus*
Singapore Math
by Marshall Cavendish
Grade 8, Part B**

Science

- Core Knowledge curriculum, supplemented with Calvert, for Grades 1-5
- Calvert Education for grades 6-8
- 1.5 hours of instruction 2-3 days per week
- Knowledge-based approach, meaning students learn specific content to build background knowledge
- Students learn new content each school year that builds on content that came before.
- Content competencies can be found in this guide in the grade-by-grade breakdown.
- To complement content taught in class, parents can download Student Readers from the Core Knowledge website, for grades 1-5.



**Grade 2
Sample Student Reader**



**Grade 5
Sample Student Reader**

<https://www.coreknowledge.org/curriculum/download-curriculum/>
To download all student readers for each grade level

Commitment to English Language Acquisition

At ISD, we recognize and appreciate that many families choose to educate their children at ISD due to the high-quality English immersive experience provided to students. Our students come to us with varying levels of English proficiency, and our goal is to meet students where they are linguistically while setting goals so that they can participate as fully as possible at the appropriate grade level in the classroom.

The language acquisition process is different for every learner, but English instruction at ISD is guided by a few common principles:

- 1. We offer an English immersion experience:** Our teachers teach in English, all student work is submitted in English, and students are encouraged and given the opportunity to use English to communicate with one another in the classroom. That being said, teachers will use resources (people and/or technology) to ensure that our students understand what is expected of them. We seek to use English at all times in the classroom, while also recognizing that sometimes a student may need encouragement or redirection in another spoken language.
- 2. Each class has an assistant teacher or volunteer who focuses on helping our English language learners access the curriculum:** Each classroom has either a full-time assistant teacher or a part-time volunteer who works with students in small groups or one-on-one to aid in language learning and in the content areas.
- 3. Our teachers scaffold and modify instruction to help students access grade-level work:** Especially once students reach the upper elementary and middle school grade levels, content can be challenging in a student's native language, and even more so when the student is learning English. Therefore, teachers will provide appropriate accommodations to allow students to acquire language in order to build up to grade level instruction. For example, in ELA instruction, English language learners will practice the same skills as their English-speaking classmates (summarizing a text, defining vocabulary in context), but they may use a different text so that they can practice the skill and learn English language and vocabulary, rather than reading the same grade-level text. As students acquire language skills, they will increase their access to grade-level instruction.
- 4. Because teachers know the students' language abilities, they set appropriate goals and direct language instruction based on their expertise and knowledge of the students' abilities:** At ISD, we believe our teachers are our best resources, as our teachers are highly trained and informed of educational best practices. Administrative staff have ongoing conversations with teachers about strategies being used in the classroom, with teachers ultimately making decisions about which strategies and techniques will most benefit each individual student.
- 5. While the overall goal is that our students will meet grade-level benchmarks each year, we understand that language learning is a lengthy and complex process:** ISD sets high expectations for our students, but we also seek to provide a positive educational experience for our students, and to keep in mind that each individual student follows a unique trajectory in their English language acquisition process due to a variety of factors. We balance a rigorous curriculum with flexibility and patience.

English Language Acquisition Competencies

In order to help students access grade-level curriculum, teachers will first work with English language learners to meet these language goals.

1. Students can understand basic instructions (e.g., sit down, raise your hand, take out a pencil, etc.) in English.
2. Students can use English to communicate needs (e.g., I don't understand; Can you help me?; May I go to the bathroom?; etc.).
3. Students can identify, produce, and combine English phonemes to produce English words with intelligible pronunciation.
4. Students can recognize and use classroom vocabulary that allows them to function within a classroom setting.
5. Students can use social English to communicate with teaching staff and classmates.
6. Students can use social English to communicate about daily life, within and outside the classroom.
7. Students can communicate ideas and concepts necessary for success in the area of English language arts (ELA), using academic vocabulary needed to access grade-level content.
8. Students can communicate verbally in English using complete sentences to answer and ask questions.
9. Students can write sentences in English that answer or ask a question.
10. Students can compose a paragraph in English.
11. Students can communicate ideas and vocabulary related to mathematics, using academic vocabulary needed to access grade-level content.
12. Students can communicate ideas and vocabulary related to history and geography, using academic vocabulary needed to access grade-level content.
13. Students can communicate ideas and vocabulary related to science, using academic vocabulary needed to access grade-level content.
14. Students can read and comprehend a short, grade-level text in English, using appropriate strategies for determining the meaning of words, phrases, and sentences.

As English language learners begin to meet these competencies, they will have greater access to, and be able to participate more fully in, grade-level instruction in English.

Curriculum and Competencies by Grade Level

In the pages that follow, you will find a “Year at a Glance” guide for each grade. These charts list the units of study that comprise the curriculum for the school year for each grade level. Immediately following is a list of competencies by subject area and grade level.

Our teachers at ISD seek to provide students with a comprehensive education, so the competencies listed below are not a complete list of skills teachers will address during the school year. However, these skills have been deemed foundational in preparing students for the next grade level, and thus these competencies will often guide instructional decisions made in the classroom. Likewise, it may be appropriate to focus on certain skills more than others, and our teachers make decisions and set instructional goals based on recognized student needs.

At times, teachers may choose to supplement or substitute portions of the curriculum. We encourage teachers to use their expertise to help students meet instructional goals. We allow these changes when they are appropriate for a particular classroom and purpose. In addition, because we are piloting the Core Knowledge curriculum, some teachers may have elected to pull in portions of the Calvert curriculum for social studies and science rather than beginning to use the Core Knowledge curriculum this school year.

Please note that the competencies are written based on a student who can access grade-level content in English. English language learners will still work towards these competencies, but priority is placed on these learners being able to understand and use English. As students’ English proficiency increases, they will be given more goals aligned with these grade-level competencies.

Grade One: Year at a Glance

<p><u>ELA</u></p> <p>Reading Books</p> <ul style="list-style-type: none">● <i>Here We Go!</i> (Houghton Mifflin)● <i>Let's Be Friends!</i> (Houghton Mifflin)● <i>Surprises</i> (Houghton Mifflin)● <i>Treasures</i> (Houghton Mifflin)● <i>Wonders</i> (Houghton Mifflin)● <i>Phonics Library</i> <p>Vocabulary and Spelling</p> <p>Grammar</p> <p>Writing</p>	<p><u>Math</u></p> <p>Unit 1: Numbers to 10</p> <p>Unit 2: Number Bonds</p> <p>Unit 3: Addition Facts to 10</p> <p>Unit 4: Subtraction Facts to 10</p> <p>Unit 5: Shapes and Families</p> <p>Unit 6: Ordinal Numbers and Position</p> <p>Unit 7: Numbers to 20</p> <p>Unit 8: Addition and Subtraction Facts to 20</p> <p>Unit 9: Length</p> <p>Unit 10: Weight</p> <p>Unit 11: Picture Graphs and Bar Graphs</p> <p>Unit 12: Numbers to 40</p> <p>Unit 13: Addition and Subtraction to 40</p> <p>Unit 14: Mental Math Strategies</p> <p>Unit 15: Calendar and Time</p> <p>Unit 16: Numbers to 120</p> <p>Unit 17: Addition and Subtraction to 100</p> <p>Unit 18: Multiplication and Division</p> <p>Unit 19: Money</p>
<p><u>Social Studies</u></p> <p>Unit 1: Continents, Countries, and Maps</p> <p>Unit 2: Mesopotamia</p> <p>Unit 3: Ancient Egypt</p> <p>Unit 4: Three World Religions</p> <p>Unit 5: Early Civilizations of the Americas</p> <p>Unit 6: The Culture of Mexico</p> <p>Unit 7: Early Explorers and Settlers</p> <p>Unit 8: From Colonies to Independence</p> <p>Unit 9: Exploring the West</p>	<p><u>Science</u></p> <p>Unit 1: The Scientific Method</p> <p>Unit 2: Human Body Systems</p> <p>Unit 3: The Life Cycle of Plants and Animals</p> <p>Unit 4: Weather and Temperature</p> <p>Unit 5: The Earth</p> <p>Unit 6: Properties of Matter</p>

Grade One Competencies

By the end of Grade 1, students will have made significant progress in the following areas:

ELA Skill-Based Competencies

Reading

- Recognize differences between letters and words; identify rhyming words; recognize rhyme and rhythm
- Blend, segment, and count phonemes; delete and substitute phonemes—initial, medial, or final; blend sounds in separate syllables to name a word
- Recall letters in the alphabet; recognize capital/lowercase letter pairs; consonants/sounds
- Blend, build, read short/long vowel pattern words (CVC, CVCe, VCCV); blend/read consonant/digraphs/consonant blend words (beginning, middle, end); blend/read words with vowel digraphs/r-controlled words/vowel diphthongs, double consonants; blend, read, build base words with endings -er, -est, -ed, -s, -ing, -es, -ies
- Clap out number of syllables in a word
- Blend and read words with plural endings, possessive endings
- Associate sounds for soft g/c with letters/letter patterns; choose appropriate vowel sound for the letter y at the end of a word
- Break down compound words; identify base words and suffix rule (letter dropped or doubled); apply phonics/decoding strategy to decode text
- Read/write grade level appropriate contractions, compound words (up to two syllables), and prefixes (dis-, re-, un-)
- Participate in conversation and choral reading
- Identify aspects of a conversation
- Dramatize a fable; role play conflict/resolution
- Prepare/present spoken directions; oral report
- Read, listen, and interpret plays, poems, folktales, stories, and cartoons
- Read informational articles, maps, pictographs, pamphlets, timelines, science charts
- Read and follow a set of directions/recipe
- Distinguish nonfiction from fiction; fact from opinion; fantasy from realism
- Identify similarities and differences, theme, cause and effect, problem and situation
- Identify story elements (topic, main ideas, details); sequence, retell, and summarize events in a story; complete story maps
- Respond to questions about a reading selection using critical thinking skills to compare and contrast, make generalizations, and categorize and classify
- Compare story structures of two selections
- Identify and evaluate author's purpose
- Develop critical thinking skills such as visualize, predict, infer, summarize, evaluate, and clarify
- Use graphic organizers, text, pictures, and personal experiences to aid in comprehension
- Recognize/read high-frequency words in context
- Identify opposites, days of the week, homographs/homophones, months of the year, colors, position words, family words, sensory words, words and symbols on signs, poetry vocabulary, words related to a city, parts of a bird, math words, animals names and sounds, emotion words, and classroom objects; identify synonyms; add suffixes and prefixes to make new words
- Read fluently (independently) with expression, adjusting rate
- Listen for main idea and entails, for another person's opinion, for enjoyment
- Listen for a purpose
- Memorize and recite traditional and modern verse

Spelling

- Spell long/short vowel sound (CVC, VCe), consonant digraphs (sh, ch), vowel diphthongs (oo, oi, ow, ou), vowel digraphs (ay, oa, ea, ee), r-controlled vowels (or, ar)
- Spell words with suffixes (-s, -es, -ed, -ing)
- Recognize spelling errors in simple sentences
- Recognize and name rhyming words

Grammar

- Arrange words in alphabetical by first letter
- Identify and classify naming words; identify and write singular and plural nouns; identify, use and write proper nouns; substitute and match pronouns and nouns
- Identify verbs; recognize and write present-tense action verbs; identify past-tense action verbs with -ed ending
- Identify describing words that tell color, number, size, and shape; use describing words to complete sentences; state words that describe sound, taste, smell, and feeling
- Identify and use capital letters at the beginning of a sentence; recognize why specific words begin with a capital letter; recognize the use of capital letters to begin the names of people, understand the capitalization rule for the word *I*
- Use ending punctuation including and exclamation point; identify and use punctuation marks; identify correct punctuation for telling and asking sentences
- Identify and write complete sentences; identify the naming and action parts of a sentence; identify and write telling and asking sentences

Writing

- Participate in shared writing and independent writing activities, including writing words and sentences
- Contribute sentences for a variety of writing types
- Write sentences, stories, journal entries, poems, topic sentences, paragraphs, and other common texts
- Brainstorm ideas for the beginning, middle, and end of a story
- Proofread sentences
- Publish a selection of original compositions including a story and a personal narrative

Math Competencies

- Compare and order numbers up to 120.
- Make number bonds.
- Identify number patterns.
- Add and subtract numbers up to 100.
- Identify plane and solid shapes.
- Use ordinal numbers to tell order.
- Use mental math strategies to add and subtract.
- Compare the length of two things.
- Measure length with objects or in units.
- Compare the weight of two things.
- Find the weight in units.
- Use and make picture graphs, tally charts, and bar graphs.
- Use a calendar.
- Tell time to the hour and half-hour.
- Multiply using counters or adding; divide by finding equal numbers of groups.
- Identify penny, nickel, dime, and quarter; add and subtract money.

Social Studies Competencies

- In Unit 1: Continents, Countries, and Maps, students can: 1) use map keys (or legends) and symbols; directions on a map (north, south, east, and west); the locations of the Atlantic and Pacific Oceans; the locations of the Indian and Arctic Oceans; the locations of the North Pole and South Pole; the locations of the equator, the Northern Hemisphere, and the Southern Hemisphere; 2) name the seven continents; the locations of Canada, the United States, Mexico, and Central America; the names and locations of their continent, country, and community; the meaning and appropriate usage of the terms *peninsula*, *harbor*, *bay*, and *island*.
- In Unit 2: Mesopotamia, students can: 1) describe Mesopotamia as an early civilization; explain the importance of the Tigris and Euphrates Rivers; explain the importance of farming in the development of towns and cities; explain how the development of writing could help spread ideas; describe the Code of Hammurabi (early code of laws) and why rules and laws are important in a large community.
- In Unit 3: Ancient Egypt, students can: identify geographical features of Africa: the Sahara Desert and the flooding of the Nile River; describe what it was like for everyday Egyptian people and their rulers; describe

Ancient Egyptian religion and practices, tombs, pyramids, mummies, animal gods, and the Sphinx; describe the development of writing: hieroglyphs; identify important pharaohs: Tutankhamen, Hatshepsut.

- In Unit 4: Three World Religions, students can: describe religions as the basis of significant aspects and ideas in world history; describe significant aspects of Judaism: belief in one god, Exodus, Israel, the Ten Commandments, Rosh Hashanah, Yom Kippur, Star of David, Torah, synagogue; describe significant aspects of Christianity: developed from Judaism, the life and teachings of Jesus, Jesus as the Messiah, Christmas, Easter, the symbol of the cross; describe significant aspects of Islam: origin in Arabia, belief in one god, prophet, Mecca, Koran, mosque, Ramadan, Eid-al-Fitr, Eid al-Adha, symbols of crescent and star; explain the concept of religious freedom.
- In Unit 5: Early Civilizations in the Americas, students can: locate the route from Asia to North America taken by some of the first peoples of the Americas; provide alternative theories about how early peoples migrated; describe the everyday life of nomadic hunters and gatherers who crossed the Bering Strait land bridge; explain how and why some early peoples shifted from hunting and gathering to raising crops; explain how the development of farming led to the development of communities; describe Maya accomplishments in architecture, astronomy, writing, religion, math, and farming; name possible reasons for the decline of the Maya civilization; describe the everyday life and social system of the Aztec; explain how the Aztec built their city on a lake; describe Aztec accomplishments in engineering, medicine, and education; describe where the Inca lived; describe the achievements of the Inca; explain how stories get passed through generations; retell the Maya creation myth; explain how the Maya, Aztec, and Inca people of today still follow their ancestors' traditions.
- In Unit 6: The Culture of Mexico, students can: locate Mexico relative to Canada and the United States; locate Central America, the Yucatan Peninsula, the Gulf of Mexico, the Rio Grande, and Mexico City; describe the mix of indigenous and Spanish heritages in Mexican culture; describe representative traditions: the fiesta and the pinata; explain the reason that December 16 (el Dieciseis de Septiembre) is Mexican Independence Day and a national holiday.
- In Unit 7: Early Explorers and Settlers, students can: describe the story of Columbus' first voyage to the Americas in 1492; Spain's search for gold and silver in Mexico, Central America, and South America; describe the conquests of Cortes and Pizarro; explain how European diseases devastated Native American populations; tell the story of the Lost Colony and the founding of Jamestown; describe the beginning of slavery and the development of plantations in the southern colonies; describe the pilgrims' voyage on the Mayflower, their founding of Plymouth Colony, and the first Thanksgiving as a result of Native American help; describe the founding of Massachusetts Bay Colony by the Puritans.
- In Unit 8: From Colonies to Independence, students can: locate the thirteen original colonies; identify important parts of the U.S. colonial period, including the Boston Tea Party, Paul Revere's ride, minutemen and redcoats, Thomas Jefferson, the Declaration of Independence, the Fourth of July, the legend of Betsy Ross and the flag, Benjamin Franklin, George Washington, Martha Washington, Washington D.C., the U.S.'s capital.
- In Unit 9: Exploring the West, students can: locate the Appalachian and Rocky Mountains and the Mississippi River; discuss the importance of Daniel Boone and the creation of the Wilderness Road; explain the importance of the Louisiana Purchase and its exploration by Lewis and Clark and their Native American guide, Sacagawea.

Science Competencies

- Identify skills and steps used to investigate.
- Model the steps of the scientific method.
- Use standard methods of measuring length, volume, and mass.
- Use scientific tools, for example a clock and a thermometer.
- Identify important science safety procedures.
- Explain the function of the different human body systems; for example, skeletal system, muscular system, circulatory system, nervous system, digestive system; identify ways to take care of the body.
- Describe the life cycle of plants and animals, including survival adaptations.
- Identify animal habitats.
- Describe the changes that occur during the four seasons.
- Explain the sun's importance for life on Earth.

- Define weather and temperature and the effects weather has on animals and plants.
- Identify the composition of Earth's surface and identify differences between bodies of water.
- Describe and compare the properties of matter, including solids, liquids, and gasses.
- Prepare mixtures of different solids and liquids.
- Introduce simple machines, magnets, and energy sources.
- Explore ways to conserve resources by reusing, recycling, and reducing.

Grade Two: Year at a Glance

<p><u>ELA</u> Reading Textbooks</p> <ul style="list-style-type: none"> ● <i>Reading: Adventures</i> (Houghton Mifflin) <ul style="list-style-type: none"> ○ Theme 1: Silly Stories ○ Focus on Genre: Poetry ○ Theme 2: Nature Walk ○ Focus on Genre: Fables ○ Theme 3: Around Town: Neighborhood and Community ● <i>Reading: Delights</i> (Houghton Mifflin) <ul style="list-style-type: none"> ○ Theme 4: Amazing Animals ○ Genre Focus On Biography ○ Theme 5: Family Time ○ Focus on Genre: Chapter Books ○ Theme 6: Talent Show ● <i>Reading: Phonics Library</i> <p>Spelling Grammar Writing and Composition</p> <p>See “Grade Two Competencies” (follows) for a comprehensive list of skills addressed in these units.</p>	<p><u>Math</u> Unit 1: Numbers to 1,000 Unit 2: Addition up to 1,000 Unit 3: Subtraction up to 1,000 Unit 4: Using Bar Models: Addition and Subtraction Unit 5: Multiplication and Division Unit 6: Multiplication Tables of 2, 5, and 10 Unit 7: Metric Measurement of Length Unit 8: Mass Unit 9: Volume Unit 10: Mental Math and Estimation Unit 11: Money Unit 12: Fractions Unit 13: Customary Measurement of Length Unit 14: Time Unit 15: Multiplication Tables of 3 and 4 Unit 16: Using Bar Models: Multiplication and Division Unit 17: Picture Graphs Unit 18: Lines and Surfaces Unit 19: Shapes and Patterns</p>
<p><u>Social Studies</u> Unit 1: Ancient India Unit 2: Ancient China Unit 3: The Culture of Japan Unit 4: Ancient Greece Unit 5: Geography of the Americas Unit 6: Making the Constitution Unit 7: The War of 1812 Unit 8: Americans Move West Unit 9: The Civil War Unit 10: Immigration and Citizenship Unit 11: Civil Rights Leaders</p>	<p><u>Science</u> Unit 1: Properties of Matter Unit 2: Organisms and Their Habitat Unit 3: Exploring Land and Water Unit 4: Electricity and Magnetism Unit 5: Human Cells and Digestion</p>

Grade Two Competencies

By the end of Grade 2, students will have made significant progress in the following areas:

ELA Competencies

Reading

- Identify chapter titles and headings; identify parts of a book and newspapers
- Segment, substitute, isolate, and blend phonemes; segment and substitute syllables; identify rhyming words, long and short vowel sounds, and open and closed syllables
- Identify/read words with one or more syllables, short/long vowels, vowel/consonant blends, digraphs, diphthongs, r-controlled vowels, silent letters, and hard/soft g/c; review the schwa sound
- Read/write words with consonant clusters/double consonants; alphabetize words to their third letter
- Read, write, and identify base words in word with -s, -ed, -ing, -ly, -ful; identify spelling changes to base words when -er and -est are added; read, write, and divide into syllables in words ending in -tion and -ture; read and write words containing -s, -es, and -ies, two-syllables with -le ending, ending in y/long e sound, prefix un-
- Identify closed syllables in and shorter words within compound words; recognize base word and suffix; recognize and read contractions; give persuasive talk
- Recite poetry; identify/present a choral retelling; act out a scene from a play; tell a story; identify characteristics of a good storyteller
- Conduct an interview to gather information; participate in a conversation and discussion; plan and use visuals to give a presentation; give, interpret, and respond to nonverbal cues
- Reread to build fluency; adjust rate of reading; read with expression, appropriate volume, rate, pitch
- Read charts, maps, key; describe and use a graph for information
- Find information in a reference book; use a table of contents, index, and glossary, dictionary- entry words, guide words, telephone book, and calendar, timeline to find information and interpret the sequence of events
- Read biography, non-fiction article, script, concert program, newspaper index, and a play
- Read and follow a set of directions, a recipe, and steps in a process; read and interpret cartoons, comic strips, and song lyrics; interpret fine art; identify and explain meanings of puns
- Identify story elements in stories (fable, fantasy, realistic), text organization, key-events/elements from a biography, and identify and explain story theme, problem, solution, moral (fable), cause and effect, and patterns
- Sequence, summarize, and respond to questions about a story
- Identify elements of poetry and poetic devices, elements of a play
- Distinguish between fact and opinion
- Use critical thinking strategies to categorize, classify, make generalizations, infer, draw conclusions, compare and contrast
- Recognize how an author creates humor; identify, connect and compare authors' viewpoints; give opinion about a character's action in relation to one's own experience; connect and compare character traits; examine a text's illustration, photos, and captions to understand main ideas
- Apply phonics and decoding strategies; recognize high frequency and key vocabulary words in isolation and context; words in same word family; idioms; extend vocabulary—content, genre, abbreviations; identify and use homophones, synonyms, antonyms; use context clues to determine meaning; determine definition of word with more than one meaning
- Use graphic organizers to aid in comprehension—webs, story maps, Venn diagrams, prediction charts, etc.
- Make connections between two stories; between stories and personal experience
- Use the comprehension strategies in order to question, predict, infer, and scan
- Listen to compare and contrast; make judgments, to give, read, and restate directions; apply rules for listening during a discussion; use description to visualize and event
- Read, memorize, and recite traditional and modern poems and prose

Spelling

- Spell long/short vowel sound (CVC, Vce, CVVC), consonant clusters (tr, sw, st, cl, br, gl), consonant digraphs (sh, ch, th, wh), vowel diphthongs (oo, ow, ou), vowel digraphs (ay, ai, oa, ea, ee), r-controlled vowels (or, ar, er), double consonants (ll, ff, dd, ss)

- Spell words with suffixes (-ed, -ing)
- Recognize spelling errors in a paragraph
- Classify spelling words to put them in a group; use context clues to complete a sentence; identify homophones; recognize and name rhyming words

Grammar

- Identify, write, and use naming words (common nouns); identify and capitalize proper nouns; distinguish between the singular and plural nouns with regular and irregular spellings; identify pronouns and substitute pronouns for nouns; identify and recognize singular, plural, and plural possessive pronouns
- Identify and recognize verbs; use the correct forms of verbs in the present tense; identify verbs in the past tense; identify and write irregular forms of verbs
- Use adverbs in sentences; identify and classify adjectives including a, an, and the; use adjectives to compare; combine sentences with adjectives
- Identify and punctuate sentences; write sentences with correct end marks and capitalization; capitalize declarative sentences and questions correctly; write and punctuate exclamations; capitalize and punctuate people's titles; proofread for capital letters
- Identify, form, and use complete sentences; identify missing parts of sentences; analyze writing to eliminate sentence fragments; identify and correct run-on sentences by creating two shorter sentences
- Identify telling (declarative) sentences, exclamations, and questions; identify and give commands; restate declarative sentences as commands
- Examine sentences for correct subject-verb agreement; use is/are and was/were correctly with singular and plural nouns

Writing and Composition

- Participate in shared writing and independent writing activities, including writing words and sentence
- Contribute sentences for a message, descriptive writing, and persuasive message
- Write sentences, stories, journals entries, poems, topic sentences, paragraphs, a personal narrative, invitation, thank-you note, folk tale, literature response, and persuasive message
- Contribute sentences for a learning log, summary, answers to questions, information paragraph
- Brainstorm ideas for the beginning, middle, and end of a story
- Proofread sentences
- Publish a selection of original compositions including a story and personal narrative
- Compose four types of complete sentences which include statements, questions, exclamations, and commands
- Proofread, revise, and edit sentences and compositions; improve writing by adding details; add words to make complete sentences; revise writing to write in a personal voice
- Publish a selection of original compositions

Math Competencies

- Compare and order numbers up to 1,000.
- Identify and continue number patterns.
- Use the terms and symbols for *greater than*, *less than*, and *equal to*.
- Add and subtract numbers up to 1,000, with and without regrouping.
- Make bar models to solve word problems.
- Multiply and divide by 2, 3, 4, 5, and 10.
- Measure in length in both metric and customary units.
- Measure mass in grams and kilograms.
- Measure volume in liters.
- Measure temperature.
- Use mental math strategies to add and subtract.
- Round to the nearest 10 to estimate sums and differences.
- Identify coins and bills in U.S. currency; exchange coins of equal value.
- Identify halves, thirds, and fourths (quarters) of objects and of sets.
- Compare like fractions.
- Add and subtract like fractions.
- Tell time to the minute on both analog and digital clocks.
- Create and interpret picture graphs, tally charts, and bar graphs.

- Explore lines, curves, and surfaces.
- Identify plane shapes and solid figures; make patterns with plane shapes and solid figures.

Social Studies Competencies

- In Unit 1: Ancient India, students can: define valleys; locate the Indus River and Ganges River; describe Hinduism: Brahma, Vishnu, Shiva, many holy books, including the Rig Veda; describe Buddhism: Prince Siddhartha becomes the Buddha, “the Enlightened One,” Buddhism grows in India and then spreads through many countries in Asia, King Asoka.
- In Unit 2: Ancient China, students can: identify geographical features: the location of China, the importance of Huang He (Yellow River) and Yangtze (Chang Jiang) River, what a desert is; describe the teachings of Confucius, Great Wall of China, invention of paper and importance of silk, Chinese New Year.
- In Unit 3: The Culture of Japan, students can: identify the location of Japan relative to continental Asia, including its position in relation to the Pacific Ocean and the Sea of Japan; Japan: “land of the rising sun”; Japan as an island nation that includes four main islands; the locations of Mount Fuji and Tokyo; modern cities as sites of industry and business; describe Japanese culture: Japanese flag; examples of a traditional craft: origami; example of traditional clothing: kimono; Japanese literature (“The Tongue-Cut Sparrow”), art (*The Great Wave off Kanagawa*), and architecture (Himeji Castle) as reflections of Japanese beliefs and practices;
- In Unit 4: Ancient Greece, students can: identify locations of Greece, the island of Crete, and the Mediterranean and Aegean Seas; locations of the ancient city-states of Athens and Sparta; describe Athens as a city-state, the beginnings of democracy; Athens as a military city-state that was sometimes the enemy of Sparta; Persian Wars: Battles of Marathon and Thermopylae; Olympic Games; worship of gods and goddesses; great thinkers: Socrates, Plato, and Aristotle; Alexander the Great.
- In Unit 5: The Geography of the Americas, students can: locate the North American continent, Canada, the United States, Mexico, and Central America on a map or globe; explain and give examples of the following new geographical terms when used in relation to the United States: *coast, prairie, oasis*; and how to review and give examples of the following geographical terms when used in relation to the United States: *peninsula, harbor, bay, island, valley, and desert*; locate the American territories of Puerto Rico and the U.S. Virgin Islands on a map of North America and explain that two additional territories, American Samoa and Guam, exist elsewhere in the world; locate the Mississippi River, the Appalachian and Rocky Mountains, and the Great Lakes on a map of the United States; name their continent, country, state, and community; locate Mexico in relation to the United States, the Gulf of Mexico, and the capital of Mexico; identify the primary languages spoken in North America: United States (English), Canada (English and French), Mexico (Spanish); identify the location of Central America in relation to Mexico, the United States, and South America; identify the locations of the Caribbean Sea and the West Indies; identify the locations of the South America continent, Brazil, Peru, Chile, Venezuela, Colombia, Ecuador, Bolivia, and Argentina on a map or globe; locate the Amazon River and its tropical rainforests; identify the primary languages spoken in South America: Spanish and Portuguese.
- In Unit 6: Making the Constitution, students can: explain why the American colonists fought the British in the American Revolutionary War; describe the difficulties and challenges the Americans faced at the end of the Revolutionary War; describe the importance of compromise in creating the Constitution; identify James Madison as the Father of the Constitution; explain that the first ten amendments to the Constitution are called the Bill of Rights.
- In Unit 7: The War of 1812, students can: describe how impressment created conflict between America and Great Britain over sailors; describe Britain’s participation; describe significance of James Madison and Dolley Madison; enslaved African-American Paul Jennings; describe significance of the *U.S.S. Constitution*, “Old Ironsides,” important symbol of the War of 1812; Francis Scott Key: “The Star Spangled Banner”; Andrew Jackson: Battle of New Orleans
- In Unit 8: Americans Move West, students can: describe the new means of travel (Robert Fulton’s invention of the steamboat, Erie Canal, transcontinental railroad); routes west (wagon trains on the Oregon Trail); the Pony Express; describe the forced removal of the First Nations to reservations and the Trail of Tears; the effects of near extermination of bison on the Plains Native Americans; some Native Americans displaced from their homes and ways of life by railroads (“iron horses”); Sequoyah and the Cherokee alphabet.
- In Unit 9: The U.S. Civil War, students can: explain how Abraham Lincoln was the president of the United States at the time the Civil War began and that he believed it was important to “keep the Union together”; that soldiers who fought for the United States were called Yankees, and soldiers who fought for the

Confederate States were called Rebels; that Ulysses S. Grant was the general who led the Union army during the war, and Robert E. Lee was the general of the Confederate army; the Underground Railroad and Harriet Tubman's role in its activities; the main idea of the Emancipation Proclamation.

- In Unit 10: Immigration and Citizenship, students can: explain how millions of newcomers arrived to America; the Statue of Liberty is a symbol of freedom; Ellis Island is a first point of entry; large populations of immigrants settled in major cities, such as New York, Chicago, Philadelphia, Detroit, Cleveland, Boston, and San Francisco; citizenship has rights and responsibilities; it is possible to become an American citizen by birth, as well as by a process known as naturalization.
- In Unit 11: Civil Rights Leaders, students can: describe what civil rights are and examples of the rights that American citizens are guaranteed by law; what discrimination is and examples of discrimination in history; that when discrimination exists, that it may take a long time to change people's ideas and behaviors; the names of each of the civil rights leaders included in this unit and the cause(s) for which they fought.

Science Competencies

- From Unit 1: Properties of Matter, students can: define *matter*; identify characteristics of solids, liquids, and gases; explain properties of matter; classify materials as solids, liquids, or gases; define *temperature*; identify the effect of heating and cooling on matter; classify changes as reversible or nonreversible; define various properties of matter; determine which materials have the properties that are best suited for an intended purpose; identify the components that make up objects; explain that parts of things have properties that make them useful; describe how objects can be built up, torn down, and reassembled using the same parts
- From Unit 2: Organisms and Their Habitats, students can: classify plants; observe and record data about habitats and the plants that live in them; describe different habitats; describe plants that live in different habitats; compare and contrast plants that live in a variety of habitats; identify how to plan an investigation involving plants's needs; describe how to test if plants need water and sunlight to grow; observe, collect, and record data about plants' needs for sunlight and water; gather information about plants' needs; draw conclusions from evidence about plants' needs for sunlight and water; classify animals; observe and record data about habitats and the animals that live in them; describe different habitats; describe animals that live in different habitats; compare and contrast animals from a variety of habitats; describe ways that plants and animals depend on each other; model ways that animals help propagate plants by spreading seeds and pollen
- From Unit 3: Exploring Land and Water, students can: identify hills and mountains as landforms; describe how water can change rock; explain solutions to prevent water from changing the shape of rock; identify valleys as landforms; identify glaciers as frozen forms of water; describe how water flows and moves earth materials; interpret maps; model the land and water features of an area; describe plains, geysers, and volcanoes; identify how water soaks into the ground; describe how geysers and volcanoes work; talk about how earthquakes can change the land; describe landslides; identify how long it takes for landforms to be created; describe how mass land movements can occur suddenly and make quick changes to the landscape; describe rock arches; identify how long it takes for rock arches to form; describe how rock arches can fall and collapse suddenly; describe sand landforms, such as dunes and beaches; explain how sand dunes and beaches are formed; describe how erosion from wind and water can change dunes and beaches; identify solutions to prevent sand erosion from wind and water
- From Unit 4: Electricity and Magnetism, students can; introduce a unifying phenomenon storyline; describe evidence that electricity is present; identify examples of things people use that require electricity; express the danger associated with electricity and list safety rules; compare and contrast static electricity and electric current; observe evidence of the presence of static electricity; compare the invisible pushes and pulls of static electricity with those of magnets; trace the path of electricity in a home from a power plant, through lines, to wall sockets; compare and contrast devices that plug into wall sockets with those that use batteries; describe a simple circuit; identify the battery, wire, and bulb in a simple circuit; assemble a simple circuit to light a bulb; explain why an incomplete circuit does not allow a bulb to light up; compare and contrast an electric motor that makes a fan spin with a spinning generator that produces electricity; explore how magnets can make something rotate; recognize the basic practice of an electrician; describe physical features and importance of insulated wire
- From Unit 5: Human Cells and Digestion, students can: identify and describe parts of the digestive system; summarize the functions of the digestive system; explain the purpose of eating and digesting food as fueling the body's cells; describe cells of different types; relate cells to the composition of tissues of

different type; relate tissues to the composition of organs that form systems (such as the endocrine and immune systems); identify and describe parts of the body involved in waste elimination; summarize the functions of the excretory system; summarize waste elimination in the digestive system; discuss health practices regarding nutrition and vaccines; learn about relevant scientists

Grade Three: Year at a Glance

<p><u>ELA</u> Reading Books</p> <ul style="list-style-type: none"> ● <i>Reading: Rewards</i> (Houghton Mifflin) <ul style="list-style-type: none"> ○ Theme 1: Off to Adventure! ○ Genre Focus on Poetry ○ Theme 2: Celebrating Traditions ○ Genre Focus on Trickster Tales ○ Theme 3: Incredible Stories ● <i>Reading: Horizons</i> (Houghton Mifflin) <ul style="list-style-type: none"> ○ Theme 4: Animal Habitats ○ Genre Focus on Biography ○ Theme 5: Voyagers ○ Genre Focus on Fairy Tales ○ Theme 6: Smart Solutions <p>Spelling</p> <ul style="list-style-type: none"> ● <i>Everyday Spelling</i> <p>Grammar Writing</p>	<p><u>Math</u> Unit 1: Numbers to 10,000 Unit 2: Mental Math and Estimation Unit 3: Addition up to 10,000 Unit 4: Subtraction up to 10,000 Unit 5: Using Bar Models: Addition and Subtraction Unit 6: Multiplication Tables of 6, 7, 8, and 9 Unit 7: Multiplication Unit 8: Division Unit 9: Using Bar Models: Multiplication and Division Unit 10: Money Unit 11: Metric Length, Mass, and Volume Unit 12: Real-World Problems: Measurement Unit 13: Bar Graphs and Line Plots Unit 14: Fractions Unit 15: Customary Length, Weight, and Capacity Unit 16: Time and Temperature Unit 17: Angles Unit 18: Two-Dimensional Shapes Units 19: Area and Perimeter</p>
<p><u>Social Studies</u> Unit 1: World Rivers Unit 2: Ancient Rome Unit 3: The Vikings Unit 4: The Earliest Americans Unit 5: Canada Unit 6: Exploration of North America Unit 7: The Thirteen Colonies</p>	<p><u>Science</u> Unit 1: Investigating Forces Unit 2: Life Cycles, Traits, and Variations Unit 3: Habitats and Change Unit 4: Weather and Climate Unit 5: Human Senses and Movement</p>

Grade Three Competencies

By the end of Grade 3, students will have made significant progress in the following areas:

ELA Skill-Based Competencies

Reading

- Review consonant sounds; recognize medial consonant sounds and rhyming word pairs.
- Develop short vowel auditory skills.
- Review and read words with short and long vowel sounds.
- Review syllabication rules; break words into syllables, practice listening for stressed/unstressed syllables; count up to three syllables.
- Read words with three-letter clusters, r-controlled vowels, consonant and vowel blends, digraphs, and diphthongs.
- Read words and syllables containing hard and soft c and g sounds; classify vowel y words according to the sound of y, review and recognize letters and sounds with silent consonants.
- Identify schwa sound by letters and sound.
- Review, form, and read words with selected prefixes and suffixes, contractions, compound words, singular and plural possessives; identify base/root words.
- Generate guidelines for effective storytelling; retell a story effectively.
- Read a poem with expression.
- Read and act out a play.
- Identify parts of an outline.
- Read a biography and identify main features.
- Read a nonfiction article, a map, map key, science article, diagram, photo essay, and menu.
- Read and interpret a timeline.
- Read and follow a set of directions, a recipe, and steps in a process.
- Read and listen to poems, stories, folktales, fantasy stories, and fables.
- Read and interpret song lyrics, interpret cartoons and comic strips; interpret fine art.
- Identify and explain meanings of puns.
- Apply prereading techniques.
- Use illustrations to gain meaning of text; form questions while reading for better understanding.
- Sequence story events; identify topic, main ideas, and details about story and characters; read and summarize to answer comprehension questions.
- Identify story elements, poetry elements, and devices.
- Distinguish between fact and opinion and fantasy and realism.
- Understand metaphors.
- Make judgments about story characters, situations, and author's viewpoints.
- Use critical thinking skills to draw conclusions, make generalizations, solve analogies, categorize, classify, and compare and contrast.
- Recognize humor and its purpose; identify and evaluate problem and solution, cause and effect, and author's purpose; describe and interpret character feeling.
- Predict, infer, and draw conclusions.
- Use graphic organizers to aid comprehension.
- Listen to and follow oral directions.
- Identify multiple meanings of words concept; identify homophones, synonyms, and antonyms; add suffixes and prefixes to make new words.
- Use context clues to determine meaning; identify and explain new vocabulary.
- Review dictionary skills, including using guide words and choosing the correct definition.

Spelling

- Spell long/short vowel sounds (CVC, CVVC), consonant clusters (dr, sc, ft, nk), consonant digraphs (ch, sh, th, wh), vowel diphthongs (oo, oy, oi, au), r-controlled vowels (ear, ere, ir, ur, or, er, air), silent letter combinations (kn, wr), and double consonants (ll, dd, mm, ss, bb, tt).
- Identify and spell prefixes (un, re) and suffixes (ful, ly, ness, er, or, ist)
- Recognize word patterns; classify spelling words to put them into groups; list words in alphabetical order to the third.
- Recognize spelling, punctuation, and capitalization errors in written material; recognize syllabication rules; use a dictionary.

- Use context clues to complete a writing assignment.

Grammar

- Differentiate between sentences and fragments.
- Identify the four types of complete sentences: statements, questions, exclamations, and commands.
- Use correct capitalization and punctuation when writing dates and place names.
- Identify the subject and predicate of a sentence.
- Combine sentences using joining words (and, but, after, when, etc.) and/or helping verbs.
- Identify and use singular and plural common nouns correctly in sentences; distinguish between concrete and abstract nouns; capitalize proper nouns.
- Identify and correct run-on sentences.
- Write dialogue using correct punctuation and paragraphing.
- Distinguish between singular, plural, and possessive nouns.
- Distinguish between and use physical and mental verbs, using exact verbs to improve writing.
- Use commas in direct address.
- Identify regular and irregular verbs in the present, past, and future tenses, ensuring correct subject-verb agreement and consistent verb tense in writing.
- Differentiate between main verbs and helping verbs.
- Use subject, object, and possessive pronouns in sentences. Identify and use adjectives and adverbs.
- Form and use comparative and superlative adjectives and adverbs.
- Understand the correct usage of *good* and *well*.
- Differentiate between common homophones.
- Edit sentences with errors in usage, capitalization, and punctuation.

Writing

- Write reflections and journal entries.
- Use time order words to sequence events, exact words to create clear pictures in writing, and linking words to connect ideas.
- Understand the parts of a paragraph as a topic sentence, supporting details, and a conclusion.
- Brainstorm ideas through discussion; compose pieces of writing based on given prompts; create lists.
- Prewrite using graphic organizers.
- Compose paragraphs, personal narratives, friendly letters, compare and contrast compositions, stories, a descriptive essay, a persuasive essay, a book report, and a variety of other compositions appropriate to task.
- Edit and proofread compositions for spelling, punctuation, and capitalization; self-evaluate writing progress; set writing goals.
- Publish a selection of original compositions.

Math Competencies

- Compare and order numbers to 10,000.
- Read and write numbers to 10,000 in standard, expanded, and word form.
- Compare greater numbers.
- Use number bonds to add and subtract up to three-digit numbers.
- Use rounding and front-end estimation to estimate sums and differences.
- Add and subtract numbers to 10,000 with and without regrouping.
- Use bar models to assist in solving real-world addition and subtraction problems.
- Multiply numbers 1-10 using repeated addition, number lines, dot paper, skip counting, and arrays.
- Multiply three-digit numbers by a single digit, with and without regrouping.
- Use related multiplication facts to divide. Find the quotient and remainders when dividing multiple-digit numbers by a single digit.
- Use bar models to solve real-world multiplication and division problems.
- Add and subtract dollars and cents.
- Use the customary and metric systems to measure length, mass, and capacity.
- Use bar graphs and line plots to gather, display, and organize data.
- Identify the numerator and denominator of a fraction.
- Add and subtract fractions of a whole or set.
- Multiply and divide to find equivalent fractions.
- Tell time to the minute.

- Identify amounts of elapsed time.
- Identify parallel and perpendicular lines, and right angles.
- Identify plane shapes, congruent shapes, and lines of symmetry.
- Determine the area and perimeter of plane shapes.
- Use bar models to assist in solving real-world money and measurement problems.

Social Studies Competencies

- From Unit 1: World Rivers, students can: understand that maps have keys or legends with symbols and their uses; find directions on a map (north, south, east, west); identify major oceans (Pacific, Atlantic, Indian, Arctic); identify the seven continents (Africa, Europe, Asia, North America, South America, Antarctica, Australia); locate the U.S., Mexico, and Central America on a map; name their own continent, country, city, and community; locate the equator, Northern and Southern Hemispheres, and the North and South Poles; measure straight-line distances using a map (scale); use an atlas and online sources to find geographic information; identify important world rivers: Asia's Ob, Yellow, Yangtze, Ganges, Indus, Tigris, and Euphrates Rivers; Africa's Nile, Congo, and Niger Rivers; South America's Amazon, Parana, and Orinoco Rivers; North America's Mississippi, Mackenzie, and Yukon Rivers; Australia's Murray and Darling Rivers; Europe's Volga, Danube, and Rhine Rivers; identify terms including *source, mouth, delta, reservoir, drainage basin, tributary, channel, isthmus, and strait*.
- From Unit 2: Ancient Rome, students can: identify geographical features of the Mediterranean region: Mediterranean Sea, Aegean Sea, Adriatic Sea, Greece, Italy, France, Spain, Strait of Gibraltar, Atlantic Ocean, North Africa, Asia Minor (peninsula), Turkey, Bosphorus Strait, Black Sea, Istanbul, Red Sea, Persian Gulf, Indian Ocean; describe the background of founding and growth of Rome: BC/AD/BCE/CE, legend of Romulus and Remus, Latin, Greek deities becoming Roman mythology, the republic, the Punic Wars; discuss important features of the Roman Empire: Julius Caesar, Caesar Augustus, the Forum, Colosseum, roads/bridges/aqueducts, Pompeii and Mount Vesuvius, persecution of Christians; describe contributing factors to the decline and fall of Rome, including sacking by the Visigoths; explain the influence of Constantinople.
- From Unit 3: The Vikings, students can: identify the countries of Scandinavia (Sweden, Denmark, Norway); explain who the Norse were; discuss the importance of sailing, shipbuilding, and raiding in Viking culture; identify Eric the Red and Leif Eriksson; identify the Vikings as the earliest Europeans in North America; identify the locations of Greenland, Canada, and Newfoundland.
- From Unit 4: The Earliest Americas, students can: explain how nomadic hunters migrated from Asia to North America, possibly using the land bridge at the Bering Strait; discuss the contributions of the Inuit, Ancestral Pueblo, and Mound Builders; identify and discuss the following Native American tribes: Southwest (Pueblos: Hopi, Zuni; Dine: Navajo; Apaches), Eastern Woodlands (Haudenosaunee, Mahican, Delaware, Susquehannocks, Massachusetts, Powhatan), Southeast (Cherokee and Seminole).
- From Unit 5: Canada, students can: explain the French and British heritage of Canada; identify French-speaking Quebec; identify significant geographical features, including the Rocky Mountains, Hudson Bay, St. Lawrence River, Yukon River; explain the division of Canada into provinces and territories; identify major cities, including Montreal, Quebec City, and Toronto.
- From Unit 6: Exploration of North America, students can: describe the early Spanish exploration and settlement: settlement of Florida and founding of St. Augustine, Ponce de Leon, Hernando de Soto, Caribbean Sea, West Indies, Puerto Rico, Cuba, Gulf of Mexico, Mississippi River; describe the early exploration and settlement of the Southwest: missionary settlements, Francisco Vasquez de Coronado and the Seven Cities of Cibola, conflict between Spanish and Pueblo, Grand Canyon, Rio Grande; describe the search for the Northwest Passage: John Cabot, Samuel de Champlain, Henry Hudson, "New France" and Quebec, Canada, St. Lawrence River, the Great Lakes (Huron, Ontario, Michigan, Eerie, Superior).
- From Unit 7: The Thirteen Colonies, students can: discuss the differences in climate and agriculture in three colonial regions; identify the location of 13 colonies and important cities, such as Philadelphia,

Boston, New York, and Charleston; identify and describe the southern colonies: Virginia (Jamestown), Maryland, South Carolina, Georgia, slavery, the Middle Passage; identify and describe the New England colonies: Massachusetts (Pilgrims and Puritans), New Hampshire, Connecticut, Rhode Island, maritime economy, influence of religion; identify and describe the Middle Colonies: New York, New Jersey, Delaware, Dutch in New York, Penn and Quakers in Pennsylvania.

Science Competencies

- In Unit 1: Investigating Forces, students can: 1) identify force as a push or pull, describe forces in terms of strength and direction, describe changes in motion in terms of speed and direction, compare balanced and unbalanced forces, plan and conduct an investigation of the cause-and-effect relationships between balanced and unbalanced forces and the motion of objects; 2) investigate the effects of friction on an object's motion, identify and describe examples of friction, compare examples of helpful and harmful friction in daily life, describe the characteristics of friction as a force; 3) describe patterns in the motion of an object, describe regular patterns in an object's motion, and use data to predict future motion by describing the forces acting on that motion; 4) classify materials according to whether they are or are not attracted by a magnet, predict whether a magnet will attract another object, investigate the effects of distance on magnetic attraction, explain cause-and-effect relationships between the like and unlike poles of two magnets, describe the characteristics of magnetism as a force, describe a device that uses magnets to solve a problem.
- In Unit 2: Life Cycles, Traits, and Variations, students can 1) discuss changes in planted seeds, life cycle of an animal, metamorphosis, life cycle of a flowering plant, life cycle of a fern, developing a model to explain life cycles, stages common to all life cycles; 2) describe organism's physical traits, comparing and contrasting traits of multiple organisms, analyzing data to identify patterns of traits in parents and offspring, describing variations of organisms among the same species, comparing and contrasting the physical traits of multiple organisms, organizing a table to reveal patterns of traits, creating graphical representations that show variation of traits, giving examples of variations of traits within a population, describing the relationship between populations and ecosystems, explaining how variations of traits help individuals survive and reproduce, *species*, graphical representations showing variation of traits among individuals; 3) provide examples that indicate how environment affects traits, analyzing and interpreting evidence, using evidence to explain the cause-and-effect relationship between the food an animal/plant eats and its growth as well as between the environment and traits; 4) distinguish between traits that are helpful to an organism and those that are not, advantageous and disadvantageous traits, how changes in the environment allow certain individuals to survive and reproduce in greater numbers than those without the traits, constructing an explanation concerning advantageous traits.
- In Unit 3: Habitats and Change, students can: 1) present an argument with evidence demonstrating that, in a specific habitat, some animals or plants are adapted to survive and reproduce while other organisms cannot survive; explain the concept of adaptation by showing how specific traits help the organisms survive in at least two of these habitats: tundra, seashore, desert, or underground; provide evidence of how some animals form social groups, which is an adaptation to help them survive in their habitat; 2) describe specific evidence that shows what a habitat and a specific organism in that habitat were like before and after a significant environmental change; debate the merits of reconstructing an ecosystem after a significant environmental change; compare two different ecosystems by describing major features of how they are alike and how they differ; cite examples of natural changes in an ecosystem over time; cite examples of human-induced changes in an ecosystem over time; explain with examples how some adaptations that were once helpful can be less helpful if an ecosystem changes; 3) analyze and interpret data from fossils for evidence that as a habitat changes over time, so do the animals and plants in that habitat.
- In Unit 4: Weather and Climate, students can: 1) use a model to demonstrate that air is matter; describe characteristics of the air and Earth's atmosphere; organize data relating to the composition of the Earth's atmosphere; identify the two most common gasses in the Earth's atmosphere; explain the relationship

between warmer or cooler temperature and lower or higher air pressure; describe differences between evaporation and condensation; identify different forms of precipitation; 2) identify the sun as the source of energy that warms air; define *wind* as the movement of air; create tables and graphs that represent wind data; identify and describe patterns in wind direction over time; compare data of wind speed and direction at different locations over time; 3) describe what a meteorologist does; differentiate between weather and climate; collect and organize weather data for a single location by season; use tables, graphs, and maps to describe yearly patterns of weather for a single location; citing evidence, predict the typical weather you might expect during an upcoming season in one location; compare the seasonal weather patterns of your location with the seasonal patterns of another location; describe the climate of the region where you live; gather and communicate information about a region with a different climate than your own; citing evidence, describe the changes in climate that have occurred in an area over time; 4) describe examples of extreme weather conditions; relate the causes of an extreme weather condition to its destructive effects; identify ways to avoid danger and protect yourself during weather hazards; plan a solution to minimize the destruction from a severe weather event; evaluate the effectiveness of a solution intended to reduce the effects of a weather-related hazard.

- In Unit 5: Human Senses and Movement, students can: 1) observe visible body parts in the return of a served table tennis ball and explain their functions; 2) relate the significance of hearing to human activity; identify body parts related to human hearing; describe hearing health and safety practices; 3) relate the significance of vision to human activity; identify body parts associated with human vision; describe vision health and safety practices; 4) explain the function of muscles; differentiate between voluntary and involuntary muscles; identify major muscles; 5) explain the function of the skeletal system and identify major bones; explain the interrelationship between bones and muscles; identify ways to keep bones healthy and safe; 6) describe sensory functions of the nervous system; describe motor functions of the nervous system; 7) describe adaptive technologies that support hearing, vision, and mobility functions.

Grade Four: Year at a Glance

<p><u>ELA</u> Reading Units Unit 1: <i>Identities</i>: Introduction to Literary Elements Unit 2: Biography: <i>Jackie Robinson: Biography</i> Unit 3: <i>In the Year of the Boar and Jackie Robinson</i> by Bette Bao Lord Unit 4: Introduction to Poetry Unit 5: Famous Legends Unit 6: Legends from Around the World Unit 7: Poetry and Drama Unit 8: Nonfiction: <i>Thomas Edison, The Great Inventor</i> Unit 9: <i>Mrs. Frisby and the Rats of NIMH</i> by Robert C. O'Brien Spelling <ul style="list-style-type: none"> • <i>Everyday Spelling</i> Grammar Writing/Composition</p>	<p><u>Math</u> Unit 1: Place Value of Whole Numbers Unit 2: Estimation and Number Theory Unit 3: Whole Number Multiplication and Division Unit 4: Tables and Line Graphs Unit 5: Data and Probability Unit 6: Fractions and Mixed Numbers Unit 7: Decimals Unit 8: Adding and Subtracting Decimals Unit 9: Angles Unit 10: Perpendicular and Parallel Line Segments Unit 11: Squares and Rectangles Unit 12: Area and Perimeter Unit 13: Symmetry Unit 14: Tessellations</p>
<p><u>Social Studies</u> Unit 1: Using Maps Unit 2: World Mountains Unit 3: Medieval Europe Unit 4: Medieval Islamic Empires Unit 5: Early and Medieval African Kingdoms Unit 6: Dynasties of China Unit 7: The American Revolution Unit 8: The United States Constitution Unit 9: Early Presidents Unit 10: American Reformers</p>	<p><u>Science</u> Unit 1: Energy Transfer and Transformation Unit 2: Investigating Waves Unit 3: Structures and Functions of Living Things Unit 4: Processes that Shape Earth Unit 5: Using Natural Resources for Energy Unit 6: Human Respiration and Circulation</p>

Grade Four Competencies

By the end of Grade 4, students will have made significant progress in the following areas:

ELA Competencies

Reading

- Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from it.
- Draw evidence from literary texts to support analysis and reflection.
- Identify and analyze story elements of setting, character, theme, and conflict/resolution by drawing on details from the text.
- Use *before*, *during*, and *after* reading strategies to read and comprehend a nonfiction text and a set of instructions.
- Interpret information presented visually, orally, or quantitatively and explain how the information contributes to an understanding of the text in which it appears.
- Identify the point of view from which the story is being told.
- Use combined knowledge of all letter-sound correspondences, syllabification patterns, and morphology to read accurately unfamiliar multisyllabic words in and out of context.
- Determine the meaning of English words with roots from Greek, Latin, and other languages.
- Use the knowledge of roots and affixes to read accurately unfamiliar multisyllabic words in context and out of context.
- Identify elements of drama, such as cast of characters, narrator, dialogue, and stage directions.
- Describe and compare two different settings in a story by drawing on specific details in the text.
- Make, confirm, and revise predictions based on details from the text.
- Report on a text or summarize a story in an organized manner, using appropriate facts and relevant, descriptive details to support main ideas.
- Make personal connections to the reading material.
- Formulate and support an opinion about an issue using facts.
- Define and identify an example of flashback.
- Identify the common characteristics of fantasy.
- Integrate information from two different media sources on the same topic in order to write or speak about the subject knowledgeably.
- Draw conclusions based on information from the text.
- Identify and refer to the structural elements of a poem: verse, stanza, rhyme scheme, and meter.
- Define and identify examples of personification, simile, hyperbole, metaphor, and imagery in a poem and discuss the overall effect on the tone (mood).
- Compare the theme of two different poems.
- Explain differences between poems, including structural elements and use of poetic devices.
- Recite a poem from memory with appropriate expression.
- Compare and contrast the points of view from which different stories are narrated, including the difference between first- and third-person narrations.

Grammar

- Put words in alphabetical order.
- Define a noun and nouns that are concepts; identify common and proper nouns; recognize and form irregular plural nouns; define adjectives as words that help to describe a noun; review singular and plural possessive nouns.
- Distinguish between an action verb and a being verb; understand the meaning of and identify present and past tense verbs; identify verb phrases and compound verbs in sentences; distinguish between a main verb and a helping verb; recognize and use the past tense of irregular verbs with and without the helping verb *have*.
- Recognize pronouns, subject pronouns, and singular and plural object pronouns; identify pronouns as subject complements; discuss possessive pronouns.
- Differentiate between contractions and possessive pronouns.
- Discuss and discriminate between homonyms.
- Recognize adjectives used as subject complements; identify adjectives that modify pronouns; identify and create adjectives from nouns and verbs; understand and use comparative and superlative adjectives and adverbs.

- Use correct punctuation to edit run-on sentences, interrogative sentences, and abbreviations.
- Use appropriate plural ending for nouns, including -s, -es, and -ies.
- Apply the rules of capitalization, commas, quotation marks, apostrophes, and underlining titles of books correctly.
- Identify and write the four types of sentences; distinguish between fragments, run-on, and complete sentences; identify subjects and verbs in asking sentences; recognize that the subject of an imperative sentence is “you understood”; identify compound subjects and verbs.
- Identify the subject and predicate, including the difference between a complete and simple subject and predicate of a sentence.
- Use varied sentence structure; discuss inverted sentence order.

Writing/Composition

- Use the writing process to develop paragraphs.
- Brainstorm ideas using the 5 W’s.
- Prewrite using graphic organizers.
- Compose a variety of composition types for different purposes and audiences.
- Craft an opinion piece.
- Edit and proofread compositions for spelling, punctuation, capitalization; proofread for sentence completeness, topic sentences, correct paragraphing; revise for sentence structure and fluency, vivid verbs and adjectives, figurative language.
- Evaluate compositions for completeness and flow.
- Publish a selection of original compositions.

Spelling

- Spell long/short vowel sound (CVC, VCe, CVVC), consonant clusters/blends (scr, str, squ, thr), consonant digraphs (sh, ch, wh, tch, ph), vowel diphthongs (oo, ow, ou, ew), r-controlled vowels (or, our, er, ir), silent letter combinations (kn, gn, wr, mb, ck), double consonants (rr, ff, pp, tt, dd, bb, ss).
- Identify and spell prefixes (dis-, in-, mis-, re-) and suffixes (-ed, -ng, -er, -est, -s, -es, -ful, -ly, -ion, -less, -ment, -ness).
- Identify compound words, contractions, homophones, and possessives.
- Recognize word patterns; classify spelling words to put them into groups.
- Use context clues to identify spelling words and complete writing assignments.
- Identify analogies, exaggerations, and rhyming words.
- Proofread to identify spelling, punctuation, and capitalization errors in written material.
- Use a dictionary and a thesaurus to expand vocabulary.
- Apply syllabification rules.

Math Competencies

- Compare and order numbers to 100,000.
- Read and write numbers to 10,000 in standard, expanded, and word form.
- Use rounding and front-end estimation for estimating and finding reasonableness of an answer.
- Identify prime and composite numbers.
- Find factors and multiples of whole numbers.
- Multiply multiple digit numbers by two-digit numbers.
- Divide multiple-digit numbers by a single digit.
- Use bar models to solve real-world multiplication and division problems.
- Use tables, stem-and-leaf plots, and line graphs to gather, display, and organize data.
- Find the mean, median, mode, and range of a data set.
- Determine the probability of an event.
- Add and subtract unlike, mixed, and improper fractions.
- Compare and order, and add and subtract decimals to the hundredths.
- Measure and create angles and line segments.
- Determine the area and perimeter of plane shapes.
- Find the symmetry and rotational symmetry of shapes.
- Create and identify tessellations.
- Use bar models to assist in solving real-world probability and fraction problems.

Social Studies Competencies

- In Unit 1: Using Maps, students can: measuring distances using map scales; read maps and globes using longitude, latitude, coordinates, and degrees; identify the Prime meridian; Greenwich, England; 180 meridian, and International Date Line; read relief maps for elevations and depressions.
- In Unit 2: World Mountains, students can: identify major mountain ranges by continent: South America (Andes), North America (Rockies and Appalachians), Asia (Himalayas and Urals), Africa (Atlas Mountains), Europe (Alps, Caucasus); identify high mountains of the world by continent: Asia, Everest; North America, Denali; South America, Aconcagua; Europe, Mount Elbrus, Mont Blanc; Africa, Kilimanjaro.
- In Unit 3: Medieval Europe, students can: identify geographical features related to development of Western Europe: Rivers (Danube, Rhine, Rhone, Oder), mountains (Alps, Pyrenees), Iberian Peninsula (Spain and Portugal), France (Normandy), seas (Mediterranean, Baltic, North), British Isles (England, Ireland, Scotland, Wales, the English Channel); describe the background of Nomadic tribes invading, sacking of Rome by the Visigoths, Attila the Hun; describe the settlers of Europe: Vandals, Franks in Gaul, Angles and Saxons in England; dates: 450-1350; the Dark Ages; discuss the development of the Christian Church: Growing power of the Pope, split between Roman Catholic Church and Eastern Orthodox Church, conversion of Germanic peoples to Christianity, rise of monasteries and preservation of classical learning; describe the significance of Charlemagne: Western Roman Empire, united “Holy Roman Empire,” love and encouragement of learning; describe characteristics of feudalism: manors, castles, lords, vassals, freedmen, serfs, code of chivalry, knights, squires, pages; describe the Norman Conquest, William the Conqueror, Battle of Hastings; describe the growth of towns as center of commerce, guilds and apprentices, weakening of feudal ties; describe England in the Middle Ages: Henry II, trials by jury, murder of Thomas a Becket, Eleanor of Aquitaine, Magna Carta, King John, Parliament and representative government, Hundred Years’ War and Joan of Arc, the Black Death.
- In Unit 4: Medieval Islamic Empires, students can: describe the origins of Islam: Muhammad, Allah, Koran, Mecca, mosques, Five Pillars of Islam; describe the uniting of Arab peoples to spread Islam to northern Africa, the Eastern Roman Empire, and Spain; discuss the Ottoman Turks conquering the region; Constantinople becomes Istanbul; describe how the first Muslims were Arab, but now diverse groups are Muslim; describe the development of Islamic civilization and contributions to science and mathematics, translation of Greek and Roman writings, and cities as centers of art and culture; discuss the wars between Muslims and Christians: Holy Land, the Crusades, Saladin, Richard the Lionhearted, growing trade that resulted between cultures afterwards.
- In Unit 5: Early and Medieval African Kingdoms, students can: identify geographical features of Africa: Surrounding bodies of water (Atlantic and Indian Oceans, Mediterranean Sea, Red Sea), Cape of Good Hope, Madagascar, major rivers (Nile, Niger, Congo), Atlas Mountains, Mount Kilimanjaro; describe the contrasting climate in different regions: Sahara and Kalahari deserts, tropical rainforests along the central West African coast and the Congo River, the savanna, the Sudan (the fertile country rather than the country); identify and describe early African kingdoms: Kush and Aksum (Axum); identify and describe medieval African kingdoms: Ghana, Mali, Songhai, camel caravans, trade (gold, salt, iron, ivory, slaves), Timbuktu, spread of Islam to West Africa, Ibn Battuta, Sundiata Keita, Mansa Musa, Askia Muhammad; discuss contributions of African art: spiritual purposes and significance, ceremonial masks, antelope headdresses from Mali, sculptures of Yoruba artists in the city of Ife, ivory carvings and bronze sculptures in Benin.
- In Unit 6: Dynasties of China, students can: describe the contributions of the Qin dynasty: Shihuangdi and the Great Wall; describe the contributions of the Han Dynasty: trade, the Silk Road, invention of paper; describe the contributions of the Tang and Song dynasties: extensive trade, important inventions--compass, gunpowder, paper money; describe the Mongol invasions and rule: Genghis Khan and the “Golden Horde,” Kublai Khan and Beijing, Marco Polo; describe the contributions of the Ming Dynasty: Forbidden City and exploration of Zheng He; discuss the contributions of Chinese art: silk scrolls, calligraphy, porcelain.
- In Unit 7: The American Revolution, students can: describe the French and Indian War: alliance with Native Americans, Battle of Quebec, British gains territory but are weakened; explain the causes and provocations of American Revolution: British taxes, Boston Massacre, Crispus Attacks, Boston Tea Party, Intolerable Acts, First Continental Congress; describe the impact of the following on the Revolution: Paul Revere’s Ride, Lexington and Concord, minutemen, Bunker Hill, Second Continental Congress, George Washington, Thomas Paine’s *Common Sense*, *Declaration of Independence*, women in the revolution (Elizabeth Freeman, Deborah Sampson, Phillis Wheatley, Molly Pitcher), Loyalists, victory at Saratoga,

alliance with France, European allies (Marquis de Lafayette, French Fleet, Bernardo de Galvez, Thaddeus Kosciusko/Baron Frederick von Steuben), Valley Forge, Benedict Arnold, John Paul Jones, Nathan Hale, Cornwallis' surrender at Yorktown.

- In Unit 8: The U.S. Constitution, students can: describe main ideas behind the Declaration of Independence: "All men are created equal," unalienable rights of the people, natural rights, rights of the people to institute new government; describe the making a new government: republican government, Articles of Confederation, "Founding Fathers," Constitutional Convention, divisive issue of slavery and three-fifths compromise; describe the U.S. Constitution: Preamble, separation of powers and three branches of government, checks and balances, Bill of Rights, function of government at local/state/national level.
- In Unit 9: Early U.S. Presidents, students can: define *cabinet* and *administration*; identify George Washington as first president and John Adams as VP; identify John Adams as second president, Abigail Adams; explain the growth of political parties, two-party system, Thomas Jefferson and Alexander Hamilton; identify Thomas Jefferson, James Madison, James Monroe, John Quincy Adams, Andrew Jackson.
- In Unit 10: American Reformers, students can: define and explain the contributions of abolitionists; identify contributions of Dorothea Dix and the treatment of people with mental illness; identify contributions of Horace Mann and the first public schools; describe the Women's rights movement, including Seneca Falls Convention, Elizabeth Cady Stanton, Lucretia Mott, Amelia Bloomer, and Sojourner Truth.

Science Competencies

- In Unit 1: Energy Transfer and Transformation, students can: 1) define *energy* as the ability to cause change; forms of energy, including motion, sound, light, heat, and electrical energy; stored energy; 2) describe how all moving objects possess energy of motion; the faster an object is moving, the greater its energy; people use motion energy to cause changes that accomplish useful tasks; 3) explain how energy can be transferred from place to place; examples of this relating to sound, heat, light, and electrical energy; 4) explain how moving objects transfer energy from place to place; changes in energy when objects collide; 6) describe how one form of energy can be converted into another form of energy; many useful devices convert one form of energy into another.
- Unit 2: Investigating Waves, students can: 1) explain how waves transfer energy from one place to another; a wave has energy and can cause a change; waves are characterized by amplitude, frequency, and wavelength; 2) explain how sound waves transfer energy from one place to another and can cause changes; sound waves are produced when objects vibrate; sound waves can travel through solids, liquids, and gasses; pitch and intensity; animals have specialized structures for detecting sound waves; 3) explain how light waves transfer energy from one place to another and can cause changes; sources of light; light waves can travel through empty space and through some solids, liquids, and gasses; amplitude, frequency, and wavelengths; animals have specialized structures for detecting light; 4) describe how patterns of sound waves can transfer information; patterns of light waves can transfer information; sound and light waves can be converted to digital signals for information transfer.
- In Unit 3: Structures and Functions of Living Things, students can: 1) describe an example of the relationship between structure and function in a plant; describe an example of multiple organs working together within an animal as a system; create a model that explains the concept of the levels of biological organization; identify the function of the specific structures in plants and animals; construct an argument that in animals any structural level supports survival, growth, behavior, and reproduction; construct an argument that in plants any structural level supports survival, growth, behavior, and reproduction; 2) identify the basic parts of the human auditory system and their functions; develop a model to show that sound waves interact with special organs that allow living things to detect sound; identify the basic parts of the human visual system and their functions; develop a model to show the relationship between light reflecting from objects and specialized organs that allow living organisms to detect light; make a presentation that explains how different structures, each with different functions, work together as part of systems to support human hearing and seeing; 3) give examples of stimuli and responses in an animal; give an example of stimuli and response in a plant; identify examples of different sensory organs in an animal; use a model to describe how an organism's senses help it to survive, grow, reproduce, and behave; diagram and explain examples of stimulus and response in animals and plants.
- In Unit 4: Processes That Shape Earth, students can: 1) plan and develop a model solution to reduce the effects of one kind of geologic event; 2) provide examples of what geologists study; identify and describe

four layers of Earth; create and use a model to show Earth's layers; interpret maps to discern patterns of major geologic features of Earth's surface; create and use a model to show some of Earth's main geologic features; describe major features of Earth's surface; compare sedimentary, metamorphic, and igneous rock; 3) create and use a model to show how rock layers can provide evidence for change in Earth's surface over time; explain what fossils are and what geologists can learn from them; interpret fossil evidence to show that Earth's surface has changed over time; describe a change over time in Earth's surface that led to the formation of mountains; 4) explain different ways in which weathering can break down rocks; construct a graphic representation to provide evidence of the effects of weathering by various phenomena; explain what erosion is and how erosion changes Earth's surface; 5) identify types of geological hazards and natural disasters and some of their consequences; describe an existing engineering solution to protect people from geological natural hazards; plan and develop a model solution to reduce the effects of one kind of geologic event.

- In Unit 5: Using Natural Resources for Energy, students can: 1) understand the essential goals of a cost-benefit analysis; 2) gather information to compare the sources and uses of specific natural resources; identify natural resources as renewable or nonrenewable; list examples of renewable resources; identify coal, oil, and natural gas as fossil fuels; 3) combine information to trace the movement of a fossil fuel from its natural origin to its uses in everyday life; create a diagram to explain how electricity is generated from coal; gather information to communicate the environmental risks of using specific fossil fuels; describe the origins of fossil fuels, especially coal, oil, and natural gas; compare the processes of refining coal and natural gas; compare at least three ways petroleum is used in everyday life; describe the environmental benefits and risks of using nuclear power; 4) gather information to compare the environmental benefits and risks of using renewable resources for energy to using fossil fuels and nuclear fuels; identify technologies that help reduce the negative effects of resources used for energy; compare the process of obtaining and using a fossil fuel to that of obtaining and using a renewable resource; identify a community/audience, and share findings of a cost-benefit analysis; 5) share findings about costs and benefits of natural resource use with a community.
- In Unit 6: Human Respiration and Circulation, students can: 1) observe the effects on the body of starting to run, and identify the body functions associated with those effects; 2) identify parts of the respiratory system; classify parts of the respiratory system; describe ways the body protects the respiratory system; 3) differentiate structures in the lungs; explain lung function in respiration; explain the effect of air quality on lung health; 4) identify parts of the circulatory system; explain the function of circulatory organs; describe how changes affect circulation; 5) differentiate structures in the heart; relate cardiac structures to the process of circulation; 6) differentiate components in blood; differentiate between oxygenated and deoxygenated blood; relate blood components to the functions of materials transfer and disease resistance; 7) describe lifestyle-related decisions that positively affect the respiratory and circulatory systems; characterize the importance of cardiovascular fitness to health and longevity; characterize the dangers of exposure to smoking and other sources of particles in the air; 8) describe medical and other science advancements related to respiration and circulation; define a problem related to protecting the respiratory and circulatory systems.

Grade Five: Year at a Glance

<p><u>ELA</u> Reading Units Unit 1: <i>Shiloh</i> by Phyllis Reynolds Unit 2: <i>The Sign of the Beaver</i> by Elizabeth George Speare Unit 3: <i>All-American Tall Tales</i> (folktales) Unit 4: <i>Call It Courage</i> by Armstrong Sperry Unit 5: <i>Sing Down the Moon</i> by Scott O'Dell Unit 6: <i>Number the Stars</i> by Lois Lowry Unit 7: <i>The Secret Garden</i> by Frances Hodgson Burnett Grammar Writing Weekly Spelling Units <ul style="list-style-type: none"> • <i>Everyday Spelling</i> </p>	<p><u>Math</u> Unit 1: Whole Numbers Unit 2: Whole Number Multiplication and Division Unit 3: Fractions and Mixed Numbers Unit 4: Multiplying and Dividing Fractions and Mixed Numbers Unit 5: Algebra Unit 6: Area Unit 7: Ratios Unit 8: Decimals Unit 9: Multiplying and Dividing Decimals Unit 10: Percent Unit 11: Graphs and Probability Unit 12: Angles Unit 13: Properties of Triangles and Four-Sided Figures Unit 14: Three-Dimensional Shapes Unit 15: Surface Area and Volume</p>
<p><u>Social Studies</u> Unit 1: World Lakes Unit 2: Maya, Aztec, and Inca Civilizations Unit 3: The Age of Exploration Unit 4: The Renaissance Unit 5: The Reformation Unit 6: England in the Golden Age Unit 7: Early Russia Unit 8: Feudal Japan Unit 9: The Geography of the United States Unit 10: Westward Expansion Before the U.S. Civil War Unit 11: The Civil War in the U.S. Unit 12: Westward Expansion After the U.S. Civil War Unit 13: Native Americans: Cultures and Conflicts</p>	<p><u>Science</u> Unit 1: Investigating Matter Unit 2: Energy and Matter in Ecosystems Unit 3: Modeling Earth's Systems Unit 4: Protecting Earth's Resources Unit 5: Astronomy: Space Systems Unit 6: Human Hormones and Reproduction</p>

Grade Five Course Survey

By the end of Grade 5, students will have made significant progress in the following areas:

[DRAFT VERSION]

ELA Learning Outcomes

Reading

- Recite a poem from memory.
- Read classic literature, including novels and poetry.
- Present an oral report over a research project.
- Read/review math, science, and history textbooks.
- Compare and contrast information in an article.
- Use organizational features of texts, such as glossaries and subheadings.
- Identify steps in a process.
- Read and identify elements of fantasy and different types of poetry; differentiate between fiction and fantasy.
- Paraphrase, summarize, and outline text to recall, inform, or organize ideas.
- Follow the sequence of a story; recognize and analyze story plot, setting, and problem resolution; identify the main idea/details of a selection.
- Analyze characters, including feelings, traits, motivations, relationships, and changes.
- Identify the mood of a reading selection.
- Interpret figurative language.
- Apply critical thinking strategies to predict and revise outcomes; draw inferences, conclusions, and generalizations; support theses with text evidence and experience; classify information.
- Distinguish fact from opinion; analyze and test generalizations; identify cause and effect and author's purpose and perspective.
- Recognize and follow the steps to judge accuracy in a reading selection.
- Extend awareness of analogies and derivatives (from roots/suffixes).
- Identify synonyms, antonyms, homonyms, and compound word components.
- Use context clues to find word meaning.
- Apply syllabication rules.

Spelling

- Spell long/short vowel sounds, consonant clusters/blends (sk, sp, st, ng, nk), vowel diphthongs (oi, oy, ow, ou, ew, oo, au), r-controlled vowels (ar, ur, our, air, are, ear, eer) and silent letter combinations (kn, mb, gh).
- Identify and spell prefixes (dis-, un-, mid-, pre-), suffixes (-s, -es, -ed, -ing, -er, -est, -able, -ible, -ant, -ent, -ous, -ion, -ation), compound words, contractions, homophones, and possessives.
- Classify spelling words to put them in groups.
- Use context clues to identify spelling words and complete writing assignments.
- Identify analogies, inferences, antonyms, synonyms, homographs, alliterations, and rhyming words.
- Use a dictionary and a thesaurus; recognize spelling, punctuation, and capitalization errors in written material; recognize syllabification rules.

Grammar

- Identify action verbs, verbs of being, and verb phrases; identify the present, past, and future tense of the verb *to be*; recognize verb tense and phrases; use irregular verbs.
- Identify contractions.
- Identify conjunctions.
- Identify prepositions and prepositional phrases; differentiate between prepositions and adverbs.
- Identify common and proper nouns and articles.
- Identify direct objects and subject complements.
- Identify pronouns including personal, object, subject, indefinite, interrogative, and possessive; use subject pronouns as complements; demonstrate the correct usage of subject and object pronouns.
- Construct the possessive of singular and plural nouns.
- Define and use adjectives and adverbs in writing; identify nouns as adjectives in sentences; distinguish between limiting and demonstrative adjectives; use adjectives as subject complements.
- Demonstrate knowledge of the rules of capitalization and punctuation, including question marks, exclamation points, and apostrophes.
- Write conversations with appropriate punctuation.
- Proofread writing for errors in punctuation, capitalization, spelling, and grammar usage.
- Classify a sentence as declarative, interrogative, imperative, or exclamatory; identify the parts of a

sentence, including simple and complete subjects and predicates.

- Determine if a group of words is a sentence or a fragment; differentiate inverted sentence order from standard sentence order; write sentences in inverted order and identify the subject of a sentence; differentiate between a subject and direct object in a sentence.
- Recognize and write correct usage of negatives in a sentence.
- Identify sentence patterns for verbs of being with subject complements.

Writing/Composition

- Brainstorm ideas; create graphic organizers to plan writing.
- Develop compositions using the writing process, including prewriting, drafting, editing, revising, and publishing.
- Compose paragraphs with topic sentences, supporting details, and concluding sentences.
- Compose written pieces two to four paragraphs in length.
- Compose expository paragraphs, summaries, multi-paragraph expository compositions, a book report, a comparison/contrast composition, and a research paper.
- Edit and proofread compositions for spelling, punctuation, and capitalization; proofread for completeness of sentences, topic sentences, and correct paragraphing.
- Revise for sentence structure and fluency, vivid verbs and adjectives, and figurative language; evaluate composition for completeness and flow.
- Publish a selection of original compositions.

Math Competencies

- Compare and order numbers to 10,000,000.
- Read and write numbers to 10,000,000 in standard, expanded, and word form.
- Multiply and divide by tens, hundreds, and thousands.
- Multiply multi-digit numbers by two-digit numbers.
- Use bar models to assist in solving real-world multiplication and division problems.
- Express fractions, mixed numbers, and division expressions as decimals.
- Add and subtract unlike, mixed, and improper fractions.
- Simplify algebraic expressions.
- Evaluate inequalities.
- Use the base and height to find the area of a triangle.
- Read and write ratios.
- Rewrite decimals as mixed numbers or fractions.
- Multiply and divide decimals.
- Compare percents, fractions, and decimals.
- Use bar models to find the number represented by a percent.
- Use and interpret double bar graphs.
- Read and plot points on a coordinate grid.
- Graph equations.
- Identify and use the properties of angles, triangles, and four-sided figures.
- Identify and classify three-dimensional shapes.
- Determine the surface area and volume of three-dimensional shapes.

Social Studies Competencies

- In Unit 1: World Lakes, students can: review using latitude and longitude, coordinates, degrees, time zones, prime meridian and international date line; identify the Tropic of Cancer and Tropic of Capricorn and explain the relation to seasons and temperatures; identify the climate zones: arctic, tropical, temperate; identify imaginary lines and boundaries: Arctic Circle and Antarctic Circle; identify major lakes by continent: Eurasia: Caspian Sea; Asia: Lake Baikal and Aral Sea; Africa: Victoria, Tanganyika, Chad; North America: Huron, Ontario, Michigan, Eerie, Superior; South America: Maracaibo, Titicaca.
- In Unit 2: Maya, Aztec, and Inca Civilizations, students can: identify and locate Central America and South America on maps and globes, Brazil and Argentina; identify and locate the Amazon River, Andes Mountains; identify, locate, and describe the contributions of the Maya: southern Mexico and Central America, pyramids and temples, hieroglyphic writing, astronomy and mathematics, 365-day calendar, concept of zero; identify, locate, and describe the contributions of the Aztec: height in 1400s and 1500s,

central Mexico, Tenochtitlan, aqueducts, massive temples, Moctezuma, ruler-priests, human sacrifice; identify, locate, and describe the contributions of the Inca: Pacific Coast of South America, Machu Picchu, Cuzco, system of roads; identify and describe the conquistadors: Cortes and Pizarro, advantages of Spanish weaponry, devastation of native peoples by European disease.

- In Unit 3: The Age of Exploration, students can: describe the great wave of European exploration beginning in 1400s; discuss European motivations: Arab control of trade routes, profit through trade goods, spread of Christianity, Bartolome de la Casas; identify the geography of the spice trade: Moluku (Spice) Islands, Indochina, the Malay Peninsula, the Phillippines, definition of *archipelago*, “Ring of Fire”; describe European exploration, trade and colonization, including Portugal: Prince Henry the Navigator, exploration of West African coast, Bartholomeu Dias and the Cape of Good Hope, Vasco de Gama and the spice trade and exploration of East Africa, Portuguese conquest of East African Swahili city-states, Pedro Cabral’s claiming of Brazil; Spain: Christopher Columbus and the Tainos, Treaty of Tordesillas, Magellan crosses the Pacific, Vasco Nunez de Balboa; England and France: search for Northwest Passage, colonies in North America and West Indies, trading posts in India; Holland: Dutch take over Portuguese trade routes and colonies in Africa and East Indies, South Africa and Cape Town, New Netherland; the Sugar Trade: African slaves on Portuguese sugar plantations, sugar plantations on Caribbean Islands, West Indies (Cuba, Puerto Rico, the Bahamas, Dominican Republic, Jamaica, Haiti); the Transatlantic Slave Trade: “triangular trade” between Europe, Africa, and the colonies, the “Slave Coast” in West Africa, the Middle Passage.
- In Unit 4: The Renaissance, students can: explain the Renaissance beginning: translation by Islamic scholars of ancient Greek works, “rebirth” of ideas from ancient Greece and ancient Rome, new trade and new wealth, Italian city-states of Florence, Venice, and Rome; describe the patron system: Medici family and Florence, the popes and Rome; discuss the art of the Italian Renaissance: new emphasis on humanity and the natural world, influence of Greek and Roman art, development of linear perspective, vantage point, the horizon line, Botticelli’s *The Birth of Venus*; da Vinci’s *The Vitruvian Man*, *Mona Lisa*, *The Last Supper*; Michelangelo’s ceiling of the Sistine Chapel and *The Creation of Adam*, Raphael’s *Marriage of the Virgin*, his Madonnas, Donatello’s *Saint George*, Michelangelo’s *David*, Bruneschelli and the Florence Cathedral, St. Peter’s in Rome; discuss Renaissance literature: *The Courtier* by Castiglione, *The Prince* by Machiavelli; discuss the art of the Northern Renaissance: Bruegel’s *Peasant Wedding*, Durer’s *Self-Portrait at 28*, van Eyck’s *Arnolfini Portrait*; discuss the music of the Renaissance: Josquin Desprez, John Dowland, Mendelssohn’s *A Midsummer Night’s Dream*.
- In Unit 5: The Reformation, students can: discuss the importance of Gutenberg’s printing press; describe the Protestant Reformation: Martin Luther and the Ninety-Five Theses, John Calvin; discuss the Counter Reformation; describe the contributions of Copernicus and Galileo, conflicts between science and the Church, Ptolemaic view of the universe.
- In Unit 6: England in the Golden Age, students can: identify and describe the importance of Henry VIII and the Church of England; identify and describe the contributions of Elizabeth I; discuss British naval dominance: defeat of the Spanish Armada, Sir Francis Drake, British exploration and North American settlements; describe the English Revolution: King Charles I, Puritans, Parliament, Civil War, Cavaliers and Roundheads, Execution of Charles I, Oliver Cromwell and the Puritan regime, the Restoration, Puritans leave for the colonies; describe the “Glorious Revolution”: King James II replaced by William and Mary, Bill of Rights.
- In Unit 7: Early Russia, students can: identify geographical features of Russia: Moscow and St. Petersburg, Ural Mountains, Siberia, vegetation, steppes, Volga and Don Rivers, Black, Caspian, and Baltic Seas; describe the history of Russia: Search for a warm-water port, Russia as successor to Byzantine Empire, Moscow as center of Eastern Orthodox Church and Byzantine culture after fall of Constantinople, Ivan III (the Great), Ivan IV (the Terrible), Peter the Great and westernization of Russia, Catherine the Great, how reforms by Peter and Catherine made life harder for peasants.
- In Unit 8: Feudal Japan, students can: identify and locate the Pacific Ocean, Sea of Japan; identify and locate the four main islands: Hokkaido, Honshu, Shikoku, Kyushu; identify, locate, and discuss the importance of Tokyo; explain the effects of typhoons and earthquakes; identify and locate the Pacific Rim; discuss the emperor as nominal leader, real power in hands of the shogun; describe the samurai, code of Bushido; describe the rigid class system in feudal Japan; explain how Japan was closed to outsiders; describe the major religions: Buddhism (Four Noble Truths, Eightfold Path, nirvana) and Shinto (reverence for ancestors and nature, kami).
- In Unit 9: Geography of the United States, students can: locate the Western Hemisphere, North America, Caribbean Sea, Gulf of Mexico; locate the Gulf Stream and explain how it affects climate; locate regions

and describe their characteristics (New England, Mid-Atlantic, South, Midwest, Great Plains, Rocky Mountains, Southwest, West Coast; locate Alaska and Hawaii and describe their characteristics; identify the fifty states and capitals

- In Unit 10: Westward Expansion Before the U.S. Civil War, students can: describe the early exploration of the West: Daniel Boone, Cumberland Gap, Wilderness Trail, Lewis and Clark, Sacagawea, “Mountain Men,” fur trade, Zebulon Pike and Pikes Peak; discuss pioneers: wagon trains, steamboats, flatboats, setting out from St. Louis, Santa Fe and Oregon Trails, Mormons settle in Utah, Brigham Young, Salt Lake, Gold Rush, ‘49ers; identify geographical features: Erie Canal connecting Hudson River and Lake Erie, rivers (James, Hudson, St. Lawrence, Mississippi, Ohio, Missouri, Columbia, Rio Grande), Appalachian and Rocky Mountains, Great Plains stretching from Canada to Mexico, Continental Divide and flow of rivers; discuss the impact on Native Americans: Settlers move into Native American lands, treaties broken, Tecumseh attempts to unite tribes to defend land, Battle of Tippecanoe, Osceola; describe Manifest Destiny and conflict with Mexico, Stephen Austin and early settlement of Texas, General Antonio Lopez de Santa Anna, Battle of the Alamo, Davy Crockett, Jim Bowie; describe the Mexican War: General Zachary Taylor, Henry David Thoreau’s “Civil Disobedience” and opposition to the war, Mexican lands ceded to the United States.
- In Unit 11: The U.S. Civil War, students can: discuss the impact of abolitionists (Frederick Douglass, William Lloyd Garrison and *The Liberator*), Slave life and rebellions, industrial North versus agricultural South, Mason-Dixon Line, allowing slavery in new territories and states (Missouri Compromise of 1820, *Dred Scott* decision), Harriet Beecher Stowe’s *Uncle Tom’s Cabin*, John Brown and Harpers Ferry raid, Lincoln; describe The Civil War: Fort Sumter, Confederacy and Jefferson Davis, Yankees and Rebels (blue and gray), First Battle of Bull Run, Robert E. Lee and Ulysses S. Grant, General Stonewall Jackson, ironclad ships, Battle of Antietam Creek, the Emancipation Proclamation, Gettysburg and Gettysburg Address, African-American troops and Colonel Robert Gould Shaw, Sherman’s burning of Atlanta, Lincoln re-elected, fall of Richmond, surrender at Appomattox, assassination of Lincoln by John Wilkes Booth; discuss Reconstruction: South in ruins, “radical Republicans” v. Andrew Johnson and impeachment, carpetbaggers and scalawags, Freedman’s Bureau, Thirteenth, Fourteenth, and Fifteenth Amendments, Black Codes, the Ku Klux Klan, “vigilante justice,” end of Reconstruction and removal of troops from the South.
- In Unit 12: Westward Expansion After the Civil War, students can: describe how the possibility of discovering gold draws pioneers westward, boom towns; discuss the Homestead Act; describe the impact of railroads, Transcontinental Railroad, immigrant labor; describe cowboys and cattle drives; identify figures of the “Wild West”: Billy the Kid, Jesse James, Annie Oakley, Buffalo Bill; discuss “Buffalo soldiers,” African-American troops in the West; identify “Seward’s folly”: purchase of Alaska from Russia; discuss the importance of 1890: the closing of the American frontier.
- In Unit 13: Native Americans: Cultures and Conflicts, students can: describe culture and life: Great Basin and Plateau (Shoshone, Utes, Nez Perce), Northern and Southern Plains (Arapaho, Cheyenne, Lakota, Shoshone, Blackfoot, Crow), near extermination of bison, Pacific Northwest (Chinook, Kwakwaka’wakw, Makima); describe American governmental policies: Bureau of Indian Affairs, forced removal to reservations, attempts to break down tribal life, assimilation policies, Carlisle school; describe major conflicts: Sand Creek Massacre, Battle of Little Bighorn, Crazy Horse, Sitting Bull, Custer’s Last Stand, Wounded Knee, Ghost Dance.

Science Competencies

- In Unit 1: Investigating Matter, students can: 1) define *matter*; mass, weight, and volume; describe materials in terms of properties; observe and measure specific properties; 2) describe how matter is made up of particles too small to be seen; real-world examples that demonstrate and model that matter is made up of particles (sugar cubes, balloons, evaporating salt water); 3) describe how physical changes occur when a physical characteristic of the matter is changed but the type of matter stays the same; changing state of matter (volume and shape); water as example; other physical changes; how weight of matter is conserved when matter undergoes a physical change; 4) describe how a chemical change occurs when two types of matter interact to form a new substance; evidence that a chemical change has occurred includes changes in color, odor, or temperature, or formation of a gas; when substances undergo chemical change, no matter is gained or lost--the total weight of matter is conserved; 5) define *chemistry*; atoms; elements; atoms bonding together to form molecules.
- In Unit 2: Energy and Matter in Ecosystems, students can: 1) explain how the energy in animals’ food

originated as energy from the sun; identify the basic function in an ecosystem of producers, consumers, and decomposers; create a model that shows the relationships among sunlight, producers, consumers, and decomposers; 2) explain that experiments have shown that the increase in matter during plant growth does not come from soil; use evidence to support an argument that plants mainly get the materials they need for growth from air and water; develop a model to show the basic idea for photosynthesis, that air and water use sunlight to produce food (glucose); create a presentation that explains the energy relationship between the sun, plants, herbivores, omnivores, and carnivores; 3) define the term *ecosystem* and describe at least four examples; compare a food chain to a food web; create an use a model to show the cycling of matter and energy from producers to consumers to decomposers, and to show how the interactions of producers, consumers, and decomposers meet the needs of the living things in the ecosystem; describe specific ways that an ecosystem and its food webs can be disrupted and protected; gather evidence to show how a specific ecosystem can be disrupted by changes in the environment and by human activities.

- In Unit 3: Modeling Earth's Systems, students can: 1) describe the hydrosphere; the atmosphere; the geosphere; the biosphere; describe characteristics of a given ecosystem, including its relative size, habitats, and organisms that interact there; create a single model that illustrates Earth's four spheres; develop a graph to show the relative amounts of salt and fresh water and in each of the following: oceans, glaciers, polar ice caps, groundwater, lakes, rivers, all of Earth; 2) describe how the hydrosphere/ geosphere/ atmosphere/ biosphere interacts with other spheres; extend the model illustrating Earth's four spheres to represent their interactions.
- In Unit 4: Protecting Earth's Resources, students can: 1) establish a problem-solving mindset as the unifying theme for the unit; 2) describe the importance of water to all living things; obtain information from reliable sources to describe evidence of positive and negative relationships between human activity and Earth's water resources; list several sources of water pollution and describe how each harms the environment and human health; Describe how people have used scientific ideas and technology to protect water resources; develop a plan of suggested actions, based on scientific ideas, to show how your community can protect water resources in your area; 3) describe the importance of Earth's air to a living organism; obtain information from reliable sources to describe evidence of positive and negative relationships between human activity and air quality; list several sources of air pollution and describe how each harms the environment and human health; describe how people have used scientific ideas and technology to protect Earth's atmosphere; develop a plan of suggested actions, based on scientific ideas, to show how your community can protect air resources in your area; 4) describe at least one way an organism depends on the land around it; obtain information from reliable sources to describe evidence of positive and negative relationships between human activity and Earth's soil, land, and mineral resources; list several sources of land pollution and describe how each harms the environment and human health; Describe how people have used scientific ideas and technology to protect land resources; develop a plan of suggested actions, based on scientific ideas, to show how your community can protect land resources in your area; 5) describe an example of an ecosystem, including ways in which components of the system interact; obtain information from reliable sources to describe evidence of positive and negative relationships between human activity and ecosystems, including living and nonliving resources; list several sources of ecosystem threats and describe how each harms the environment and human health; describe how people have used scientific ideas and technology to protect Earth's ecosystems; develop a plan of suggested actions, based on scientific ideas, to show how your community can protect an ecosystem in your area.
- In Unit 5: Astronomy: Space Systems, students can: 1) distinguish between *universe*, *galaxy*, and *solar system*; identify our solar system as part of the Milky Way galaxy; list planets of our solar system in order of increasing distance from the sun; describe three ways we know about our universe and solar system; identify at least three objects that can be found in our solar system; 2) organize and present data about changes associated with Earth's rotation and orbit; distinguish between Earth's rotation and its orbit; explain how it can simultaneously be day at one location on Earth and night at another location; predict the differences in shadows seen at two different locations on Earth; describe observable patterns in the phases of the moon; identify the relative positions of the sun, moon, and Earth during a solar eclipse and a lunar eclipse; 3) organize and use data to demonstrate that apparent brightness of the sun and stars is due mainly to their distance from the Earth; organize and use data that explains why some stars and constellations are only visible in certain seasons; identify the sun as the closest star to Earth; describe an example of a constellation; describe how constellations are names; describe why some stars appear brighter than others; 4) provide evidence that Earth's gravitational force pulls objects "down" toward the center of the Earth; describe the shape of the Earth; identify the direction of Earth's gravity at two or more locations on Earth's

surface; explain the relationship between the sun's gravity and the orbits of the planets around the sun; explain the relationship between the moon's gravity and the tides on Earth.

- In Unit 6: Human Hormones, students can: 1) summarize observable characteristics of stages of the human maturation cycle; 2) define *hormone* and *gland*; describe components of the endocrine system; 3) explain the functions of the pituitary and adrenal glands; 4) explain the function of the thyroid and the pancreas; 5) define *adolescence*; characterize changes that occur during puberty for males and females.

Grade Six: Year at a Glance

<p><u>ELA</u> Reading Units Unit 1: <i>Theras and His Town</i> by Caroline Dale Snedeker Unit 2: <i>City: A Story of Roman Planning</i> by David Macauley Unit 3: Introduction to Poetry for Sixth Grade Unit 4: <i>Esperanza Rising</i> by Pam Muñoz Ryan Unit 5: <i>The Phantom Tollbooth</i> by Norton Juster Unit 6: Narrative Study: Biographies, Mysteries, Fables, and Short Stories Unit 7: Poetry, Pt. 2: Sonnet Focus Unit 8: <i>The Tempest</i> by William Shakespeare Unit 9: <i>A Long Walk to Water</i> by Linda Sue Park Spelling <ul style="list-style-type: none"> • <i>Everyday Spelling</i> Grammar Writing</p>	<p><u>Math</u> Unit 1: Positive Numbers on a Number Line Unit 2: Negative Numbers and the Number Line Unit 3: Multiplying and Dividing Fractions and Decimals Unit 4: Ratio Unit 5: Rates Unit 6: Percent Unit 7: Algebraic Expressions Unit 8: Equations and Inequalities Unit 9: The Coordinate Plane Unit 10: Area of Polygons Unit 11: Circumference and Area of a Circle Unit 12: Surface Area and Volume of Solids Unit 13: Introduction to Statistics Unit 14: Measures of Central Tendency</p>
<p><u>Social Studies</u> Unit 1: World Deserts Unit 2: Ancient Greece and Rome Unit 3: The Enlightenment Unit 4: The French Revolution and Romanticism Unit 5: The Industrial Revolution Unit 6: Independence for Latin America Unit 7: Immigration Unit 8: Industrialization and Urbanization in America Unit 9: Reform in Industrial America</p>	<p><u>Science</u> Unit 1: Cells and Heredity: Cells Unit 2: Cells and Heredity: Heredity Unit 3: Earth’s Water Unit 4: Oceanography Unit 5: Earth’s Atmosphere Unit 6: Weather and Climate Unit 7: The Diversity of Living Things: Life Over Time Unit 8: The Diversity of Living Things: Earth’s Organisms Unit 9: The Human Body: Human Body Systems Unit 10: The Human Body: Human Health</p>

Grade Six Competencies

By the end of Grade 6, students will have made significant progress in the following areas:

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ELA Competencies

Reading

- Practice oral reading, using clear diction, pitch, tempo and tone, and adjust volume and tempo to stress important ideas; demonstrate active listening strategies.
- Read a variety of material, including classic novels, plays, poetry, nonfiction, fables, and short stories.
- Analyze text features to facilitate the understanding of literary texts and informational texts.
- Answer literal, inferential, and evaluative questions to demonstrate comprehension.
- Define and identify protagonists, antagonists, internal conflict, external conflict, and examples of foreshadowing in texts.
- Identify setting, characteristics of reading materials, author’s viewpoint, and purpose for writing.

Spelling

- Spell long/short vowel sounds, vowel diphthongs (ew, iew, ue, uce), r-controlled vowel (or, ore, er, ear, ur), double consonants (nn, mm, rr, cc, ll, dd, ss), silent letter combinations (bt, sc, mn, gu, gue), schwa sound
- Identify and spell prefixes (il, in, im, ir, pre, post, over, under), suffixes (-ed, -ing, -ation, -ion, -tion, -ate, -ive, -ship, ance, -ence, -ant, -ent)
- Identify compound words, contractions, homophones.
- Classify spelling words to put them in groups
- Use context clues to identify spelling words and complete writing assignments.
- Use a dictionary and a thesaurus.
- Recognize spelling, punctuation, and capitalization errors in written material.
- Identify analogies, inferences, antonyms, synonyms, similes.
- Recognizes eponyms, hyperboles, acronyms, and Latin roots.

Grammar

- Identify action verbs, linking verbs, verbs and verb phrases, main and helping verbs.
- Explain that a verb can express action or being; identify the four principal parts of verbs.
- Identify proper and common nouns.
- Identify types of pronouns, including personal, possessive, object, reflexive, intensive, demonstrative, indefinite, relative, and interrogative pronouns.
- Understand the relationship between pronouns and their antecedents.
- Use pronouns to improve writing.
- Identify adjectives and adverbs and the words they modify.
- Identify prepositions, prepositional phrases, coordinating and correlative conjunctions, and direct and indirect objects.
- Identify and distinguish between adjective and adverb phrases.
- Identify independent, subordinate, adjective, and adverb clauses.
- Classify a sentence as declarative, interrogative, imperative, or exclamatory.
- Identify the parts of a sentence to include simple and complete subjects and predicates.
- Determine if a group of words is a sentence or a fragment.
- Identify and apply subject-verb agreement
- Identify complements

Writing/Composition

- Create graphic organizers to organize writing
- Develop compositions using the writing process, including prewriting, drafting, editing, revising, and publishing.
- Write multi-paragraph pieces.
- Compose writings of various types and for various purposes.
- Write a persuasive paragraph.
- Compose expository paragraphs, summaries, comparison/contrast, and research reports with bibliography, along with other information writing types.
- Edit and proofread compositions for spelling, punctuation, and capitalization.
- Proofread for completeness of sentences, topic sentences, and correct paragraphing, including peer editing.
- Revise for sentence structure and fluency, vivid verbs and adjectives, figurative language.
- Evaluate compositions for completeness and flow.
- Evaluate writing for a sense of audience and purpose.

- Publish a selection of original compositions

Math Competencies

- Represent fractions, mixed numbers, and decimals on number lines.
- Find the greatest common factor and least common multiple of two whole numbers.
- Use integers to represent positive and negative real-world quantities.
- Plot integers on a number line.
- Compare integers and other rational numbers.
- Divide with fractions, improper fractions, and mixed numbers.
- Multiply and divide with decimals.
- Understand the concepts of ratio, rate, and percent.
- Represent equivalent ratios in tables.
- Solve problems involving unit rates.
- Relate fractions, decimals, and percents.
- Solve problems involving the percent of a quantity.
- Use variables to stand for unknown values in an expression.
- Evaluate expressions for specific values of their variables.
- Generate and identify equivalent expressions.
- Write and solve one-step equations.
- Plot solutions to simple inequalities on a number line.
- Plot points in all four quadrants of the coordinate plane.
- Find the area of triangles, parallelograms, trapezoids, regular polygons, and composite figures.
- Calculate the circumference and area of circles.
- Find the surface area and volume of prisms.
- Use dot plots and histograms to organize and interpret data.
- Find and interpret different measures of center for a data set.

History/Geography Competencies

- In Unit 1: World Deserts, students can 1) recognize the grid pattern that parallels of latitude and meridians of longitude create on a map and globe; 2) explain the differences between climate zones; 3) identify the international date line, Arctic Circle, and Antarctic Circle; 4) explain map distortions; 5) describe characteristics of hot and cold deserts; and 6) identify the major deserts on each continent by name and major features.
- In Unit 2: Ancient Greece and Rome, students can 1) locate major geographical features of the Mediterranean region and important locations in Ancient Greece and Rome; 2) describe the Greek system of city-states; 3) explain important features of Athens (democracy, education, citizenship) and Sparta (oligarchy, military); 4) discuss Ancient Greece's significant contributions to culture, such as the Olympic Games, the great philosophers (Socrates, Plato, Aristotle), mythology, and art and architecture; 5) explain the effects of Alexander the Great's conquests; 6) describe the Roman system of government and the development of the Roman Republic; 7) discuss how Greek culture influenced Roman culture; 8) identify Julius Caesar and Caesar Augustus; 9) explain likely reasons for the decline of the Roman Empire; and 10) explain the impact of Greek and Roman culture on Western history and culture.
- In Unit 3: The Enlightenment, students can 1) situate the Enlightenment in history and discuss the characteristics of the period; and 2) discuss important thinkers and philosophers, including René Descartes, Sir Isaac Newton, Thomas Hobbes, John Locke, Thomas Jefferson, and Baron de Montesquieu.
- In Unit 4: The French Revolution and Romanticism, students can 1) explain how the ideas of the Enlightenment inspired revolution in England, America, and France; 2) describe the old regime in France, including the Three Estates, including Louis XIV, Louis XV, Louis XVI, and Marie Antoinette; 3) discuss the absolute rule of kings; 4) discuss the establishment of the National Assembly, including significant events such as Bastille Day; 5) describe the Reign of Terror; 6) describe the reign of Napoleon Bonaparte and the first French empire; and 7) explain how the French Revolution inspired the new artistic movement known as Romanticism.
- In Unit 5: The Industrial Revolution, students can 1) describe how life changed from an agricultural-based way of life; 2) discuss the impact of new inventions, such as the steam engine, steam locomotive, and the spinning jenny affected daily life; 3) explain how advancements in technology led to industry moving from

homes to factories, and the development of more factories led to the development of larger cities; 4) describe capitalism as an economic system, including contributions made by Adam Smith and the concepts of laissez-faire and supply and demand; 5) describe socialism as an economic system, including contributions made by Karl Marx and Friedrich Engels; and 6) describe how the Industrial Revolution affected people's quality of life.

- In Unit 6: Independence for Latin America, students can 1) describe and locate important geographical features in Latin America; 2) describe the history of the name "Latin America"; 3) explain the contributing factors to the rise of revolution in Latin America; 4) describe various revolutions, including the Haitian Revolution, the struggle for Mexican independence, and revolutions in New Granada, Venezuela, Chile, Brazil, and other Latin American countries; 5) identify and discuss the contributions of leading revolutionaries, such as Miguel Hidalgo, Pancho Villa, Simón Bolívar, Emiliano Zapata, and many others; and 6) identify the new nations formed.
- In Unit 7: Immigration, students can 1) describe immigration patterns to the U.S. from the 1830s onward; 2) describe the tension between the ideals (America as a "melting pot") and the realities of immigration (nativism, resistance); 3) define *citizen* and *citizenship*, describe the characteristics of each, and describe the process of becoming an American citizen.
- In Unit 8: Industrialization and Urbanization in America, students can 1) explain the rapid development of industrialization in America; 2) describe the contributions of Thomas Edison and Alexander Graham Bell to industrialization; 3) identify important capitalists and industrialists in America; 4) discuss the gaps in lifestyle during the Gilded Age; and 4) describe conditions of factories and how these conditions led to the development of unions and increased government regulations on businesses.
- In Unit 9: Reform in Industrial America, students can 1) describe how demand for reform led to the development of populism; 2) describe the developments of the Progressive Era; 3) describe the call for reform for African-Americans and significant figures in that movement; 4) discuss women's suffrage and significant figures in that movement; and 5) discuss the socialist movement.

Science Competencies

- Identify parts of a cell, explain the characteristics and structure of cells, including the difference between eukaryotic and prokaryotic cells.
- Identify and explain organelles in plant and animal cells; identify and explain the function of plant and animal cells.
- Compare models of unicellular and multicellular processes.
- Explain how cells use and store energy.
- Explain how plants make and get energy.
- Explain cellular reproduction.
- Describe Mendel's heredity experiments and explain how heredity is expressed; explain how traits are inherited.
- Describe the structure of genetic material (DNA); explain how errors in translation lead to diversity; explain the role of DNA and RNA in building proteins.
- State how scientists describe and explain winds, including local winds and global winds; describe the main types of fronts and the six main climate regions.
- Explain how weather forecasters predict the weather and how technology has helped to improve weather forecasting; identify factors that can cause climate change.
- Explain how waves form, the cause of tides, and how surface currents affect climate.
- Identify the characteristics of Earth's crust, mantle, and core; explain the theory of plate tectonics and describe the three types of plate boundaries.
- Describe the two types of volcanic eruptions and explain what happens when a volcano erupts.
- Describe how the energy of an earthquake travels through Earth, how scientists locate the epicenter of an earthquake, and the kinds of damage an earthquake can cause.
- Summarize the four parts of natural selection to explain how natural selection works.
- Explain the role of genetic and environmental factors in the theory of evolution by natural selection.
- Explain how fossils change over time; apply information from fossils and the fossil record to make inferences about relative and absolute age.
- Review the evolution of life on Earth over time using the geologic time scale.
- Explain the characteristics of fungi and compare characteristics of protists and fungi.
- Describe the characteristics of plants; explain how plants use energy from the sun.

- Describe the phases of plant life cycle; summarize the way plants respond to stimuli.
- Explain animal behavior and why behaviors develop; identify behaviors that help animals survive.
- Describe the functions of the human body systems to determine how each body system contributes to human health.
- Define homeostasis and explain what happens when body systems do not work properly.
- Describe the main function of the skeletal system and examine how it works with other systems.
- Explain the functions of the muscular system, injuries and disorders, and benefits of exercise.
- Compare and contrast the cardiovascular and lymphatic systems; make connections between parts of the cardiovascular system to explain its importance to the body and problems that can arise.
- Explain the functions, parts, and disorders of the respiratory system.
- Explain two types of digestion; identify parts of the digestive system; explain functions of the excretory system.
- Identify parts of the nervous system.
- Explain the function of the endocrine system, how hormones work, and how hormones are controlled.
- Describe the six classes of nutrients.
- Examine the benefits of eating healthily and exercising to determine the effect of exercise on the circulatory and respiratory systems.

Grade Seven: Year at a Glance

<p><u>ELA</u> Reading Units Unit 1: <i>A Door in the Wall</i> by Marguerite de Angeli Unit 2: Introduction to Poetry for Grade 7 Unit 3: <i>Roll of Thunder, Hear My Cry</i> by Mildred D. Taylor Unit 4: Nonfiction Study: <i>Across America on an Emigrant Train</i> by Jim Murphy Unit 5: Structure and Form in Poetry: <i>A Midsummer Night's Dream</i> and Sonnets by William Shakespeare Unit 6: <i>Out of the Dust</i> by Karen Hesse Unit 7: <i>A Single Shard</i> by Linda Sue Park Unit 8: Poetry Review</p> <p>Grammar Writing Weekly Spelling Units</p> <ul style="list-style-type: none"> • <i>Everyday Spelling</i> <p>Other Texts: <i>A Long Walk to Water, I Am Malala</i></p>	<p><u>Math</u> Unit 1: The Read Number System Unit 2: Rational Number Operations Unit 3: Algebraic Expressions Unit 4: Algebraic Equations and Inequalities Unit 5: Direct and Inverse Proportion Unit 6: Angle Properties and Straight Lines Unit 7: Geometric Construction Unit 8: Volume and Surface Area of Solids Unit 9: Statistics Unit 10: Probability</p>
<p><u>Social Studies</u> Unit 1: World Deserts Unit 2: Ancient Greece and Rome Unit 3: The Enlightenment Unit 4: The French Revolution and Romanticism Unit 5: The Industrial Revolution Unit 6: Independence for Latin America Unit 7: Immigration Unit 8: Industrialization and Urbanization in America Unit 9: Reform in Industrial America</p>	<p><u>Science</u> Unit 1: Cells Unit 2: Tissue and Organs Unit 3: Oceanography and the Water Cycle Unit 4: Layers of the Atmosphere Unit 5: Clouds Unit 6 and beyond: I need to check with Ms. T</p>

*Social Studies and Science units will be the same for 6th, 7th, and 8th grade for the 2021-2022, 2022-2023, and 2023-2024 school year, although the curriculum will change each year. The curriculum for the 2022-2023 school year and beyond is under development at this time.

Grade Seven Competencies

By the end of Grade 7, students will have made significant progress in the following areas:

ELA Skill-Based Competencies

Reading

- Read and comprehend a variety of reading material, including classic novels, historical fiction, nonfiction, poetry and prose, and plays.
- Independently read a book of choice based on personal interests.
- Answer literal, inferential, and evaluative questions to demonstrate comprehension.
- Apply the knowledge of prefixes and roots to analyze word meaning.
- Identify and analyze the plot structure of a literary text, including the setting and characters (exposition), rising action, climax, falling action, and resolution.
- Analyze how particular elements of a story or drama interact with one another, particularly setting and how it relates to character.
- Identify and analyze internal and external conflict that arise in a literary text.
- Identify and analyze characterization, as well as changes in character development throughout a novel.
- Determine a theme or central idea of a text and analyze its development over the course of the text.
- Define, identify, and analyze literary devices such as foreshadowing, symbol, point of view, theme, motif, dialect, figurative language, and pun.
- Identify and interpret how an author's choice of words can suggest a particular mood or tone.
- Summarize the main events and/or ideas of both fiction and nonfiction pieces.
- Record personal connections and opinions of a text, both fiction and nonfiction.
- Write critical responses to literature that includes an interpretation of the works and supports a judgment with specific references to the text.
- Recognize and explain the effect of poetic devices such as simile, metaphor, rhyme, rhythm, repetition, alliteration, onomatopoeia, hyperbole, and personification.
- Analyze a poem's form in terms of lines and stanzas by using terms such as couplet, triplet, tercet, quatrain, quintet, sestet, and octave.
- Examine the structure of a Shakespearean and Petrarchan sonnet.
- Identify the structural elements of a play and summarize the main events within the scenes or acts.
- Identify the organizational structure of a text and use its features to aid comprehension.
- Identify and explain an author's viewpoint and purpose for writing.
- Make critical comparisons across and within a variety of texts.
- Draw conclusions, sequence steps in a process, and write a persuasive essay.

Spelling

- Spell long/short vowel sounds, vowel diphthongs (ew, iew, ue, uce), r-controlled vowel (or, ore, er, ear, ur), double consonants (nn, mm, rr, cc, ll, dd, ss), silent letter combinations (bt, sc, mn, gu, gue), schwa sound
- Identify and spell prefixes (il, in, im, ir, pre, post, over, under), suffixes (-ed, -ing, -ation, -ion, -tion, -ate, -ive, -ship, ance, -ence, -ant, -ent)
- Identify compound words, contractions, homophones.
- Classify spelling words to put them in groups
- Use context clues to identify spelling words and complete writing assignments.
- Use a dictionary and a thesaurus.
- Recognize spelling, punctuation, and capitalization errors in written material.
- Identify analogies, inferences, antonyms, synonyms, similes.
- Recognizes eponyms, hyperboles, acronyms, and Latin roots.

Grammar

- Identify action verbs, linking verbs, verbs and verb phrases, main and helping verbs.
- Explain that a verb can express action or being; identify the four principal parts of verbs.
- Identify proper and common nouns.
- Identify types of pronouns, including personal, possessive, object, reflexive, intensive, demonstrative, indefinite, relative, and interrogative pronouns.
- Understand the relationship between pronouns and their antecedents.
- Use pronouns to improve writing.
- Identify adjectives and adverbs and the words they modify.
- Identify prepositions, prepositional phrases, coordinating and correlative conjunctions, and direct and

indirect objects.

- Identify and distinguish between adjective and adverb phrases.
- Identify independent, subordinate, adjective, and adverb clauses.
- Classify a sentence as declarative, interrogative, imperative, or exclamatory.
- Identify the parts of a sentence to include simple and complete subjects and predicates.
- Determine if a group of words is a sentence or a fragment.
- Identify and apply subject-verb agreement
- Identify complements

Writing/Composition

- Create graphic organizers to organize writing
- Develop compositions using the writing process, including prewriting, drafting, editing, revising, and publishing.
- Write multi-paragraph pieces.
- Compose writings of various types and for various purposes.
- Write a persuasive paragraph.
- Compose expository paragraphs, summaries, comparison/contrast, and research reports with bibliography, along with other information writing types.
- Write expository compositions based upon a thesis statement.
- Edit and proofread compositions for spelling, punctuation, and capitalization.
- Proofread for completeness of sentences, topic sentences, and correct paragraphing.
- Revise for sentence structure and fluency, vivid verbs and adjectives, figurative language.
- Evaluate compositions for completeness and flow.
- Evaluate writing for a sense of audience and purpose.
- Publish a selection of original compositions

Math Skill-Based Competencies

- Locate rational numbers on the number line.
- Convert between fractions and decimals.
- Understand and locate irrational numbers on the number line.
- Perform operations with integers and other signed numbers.
- Simplify algebraic expressions.
- Translate the verbal descriptions to algebraic expressions.
- Solve algebraic equations involving two or more steps.
- Solve multi-step inequalities and graph the solutions on a number line.
- Recognize the direct proportions in tables, equations, and graphs.
- Calculate and use constants of proportionality.
- Solve problems involving direct and inverse proportions.
- Understand the properties of complementary, supplementary, adjacent, and vertical angles.
- Identify the types of angles formed when two parallel lines are crossed by a transversal.
- Use the properties of interior and exterior angles of a triangle to solve problems.
- Construct bisectors and polygons using a straightedge and a compass.
- Find the surface area and volumes of pyramids, cylinders, cones, spheres, and composite figures.
- Calculate quartiles, interquartile range, and mean absolute deviation for a set of data.
- Use stem-and-leaf and box-and-whisker plots to describe the distribution of data.
- Describe and use different sampling methods to make inferences about a population.
- Calculate the probability of simple and compound events using lists, tables, and tree diagrams.

Social Studies Competencies

- In Unit 1: World Deserts, students can 1) recognize the grid pattern that parallels of latitude and meridians of longitude create on a map and globe; 2) explain the differences between climate zones; 3) identify the international date line, Arctic Circle, and Antarctic Circle; 4) explain map distortions; 5) describe characteristics of hot and cold deserts; and 6) identify the major deserts on each continent by name and major features.
- In Unit 2: Ancient Greece and Rome, students can 1) locate major geographical features of the Mediterranean region and important locations in Ancient Greece and Rome; 2) describe the Greek system

of city-states; 3) explain important features of Athens (democracy, education, citizenship) and Sparta (oligarchy, military); 4) discuss Ancient Greece’s significant contributions to culture, such as the Olympic Games, the great philosophers (Socrates, Plato, Aristotle), mythology, and art and architecture; 5) explain the effects of Alexander the Great’s conquests; 6) describe the Roman system of government and the development of the Roman Republic; 7) discuss how Greek culture influenced Roman culture; 8) identify Julius Caesar and Caesar Augustus; 9) explain likely reasons for the decline of the Roman Empire; and 10) explain the impact of Greek and Roman culture on Western history and culture.

- In Unit 3: The Enlightenment, students can 1) situate the Enlightenment in history and discuss the characteristics of the period; and 2) discuss important thinkers and philosophers, including René Descartes, Sir Isaac Newton, Thomas Hobbes, John Locke, Thomas Jefferson, and Baron de Montesquieu.
- In Unit 4: The French Revolution and Romanticism, students can 1) explain how the ideas of the Enlightenment inspired revolution in England, America, and France; 2) describe the old regime in France, including the Three Estates, including Louis XIV, Louis XV, Louis XVI, and Marie Antoinette; 3) discuss the absolute rule of kings; 4) discuss the establishment of the National Assembly, including significant events such as Bastille Day; 5) describe the Reign of Terror; 6) describe the reign of Napoleon Bonaparte and the first French empire; and 7) explain how the French Revolution inspired the new artistic movement known as Romanticism.
- In Unit 5: The Industrial Revolution, students can 1) describe how life changed from an agricultural-based way of life; 2) discuss the impact of new inventions, such as the steam engine, steam locomotive, and the spinning jenny affected daily life; 3) explain how advancements in technology led to industry moving from homes to factories, and the development of more factories led to the development of larger cities; 4) describe capitalism as an economic system, including contributions made by Adam Smith and the concepts of laissez-faire and supply and demand; 5) describe socialism as an economic system, including contributions made by Karl Marx and Friedrich Engels; and 6) describe how the Industrial Revolution affected people’s quality of life.
- In Unit 6: Independence for Latin America, students can 1) describe and locate important geographical features in Latin America; 2) describe the history of the name “Latin America”; 3) explain the contributing factors to the rise of revolution in Latin America; 4) describe various revolutions, including the Haitian Revolution, the struggle for Mexican independence, and revolutions in New Granada, Venezuela, Chile, Brazil, and other Latin American countries; 5) identify and discuss the contributions of leading revolutionaries, such as Miguel Hidalgo, Pancho Villa, Simón Bolívar, Emiliano Zapata, and many others; and 6) identify the new nations formed.
- In Unit 7: Immigration, students can 1) describe immigration patterns to the U.S. from the 1830s onward; 2) describe the tension between the ideals (America as a “melting pot”) and the realities of immigration (nativism, resistance); 3) define *citizen* and *citizenship*, describe the characteristics of each, and describe the process of becoming an American citizen.
- In Unit 8: Industrialization and Urbanization in America, students can 1) explain the rapid development of industrialization in America; 2) describe the contributions of Thomas Edison and Alexander Graham Bell to industrialization; 3) identify important capitalists and industrialists in America; 4) discuss the gaps in lifestyle during the Gilded Age; and 4) describe conditions of factories and how these conditions led to the development of unions and increased government regulations on businesses.
- In Unit 9: Reform in Industrial America, students can 1) describe how demand for reform led to the development of populism; 2) describe the developments of the Progressive Era; 3) describe the call for reform for African-Americans and significant figures in that movement; 4) discuss women’s suffrage and significant figures in that movement; and 5) discuss the socialist movement.

Science Competencies

- Identify parts of a cell, explain the characteristics and structure of cells, including the difference between eukaryotic and prokaryotic cells.
- Identify and explain organelles in plant and animal cells; identify and explain the function of plant and animal cells.
- Compare models of unicellular and multicellular processes.
- Explain how cells use and store energy.
- Explain how plants make and get energy.
- Explain cellular reproduction.

- Describe Mendel’s heredity experiments and explain how heredity is expressed; explain how traits are inherited.
- Describe the structure of genetic material (DNA); explain how errors in translation lead to diversity; explain the role of DNA and RNA in building proteins.
- State how scientists describe and explain winds, including local winds and global winds; describe the main types of fronts and the six main climate regions.
- Explain how weather forecasters predict the weather and how technology has helped to improve weather forecasting; identify factors that can cause climate change.
- Explain how waves form, the cause of tides, and how surface currents affect climate.
- Identify the characteristics of Earth’s crust, mantle, and core; explain the theory of plate tectonics and describe the three types of plate boundaries.
- Describe the two types of volcanic eruptions and explain what happens when a volcano erupts.
- Describe how the energy of an earthquake travels through Earth, how scientists locate the epicenter of an earthquake, and the kinds of damage an earthquake can cause.
- Summarize the four parts of natural selection to explain how natural selection works.
- Explain the role of genetic and environmental factors in the theory of evolution by natural selection.
- Explain how fossils change over time; apply information from fossils and the fossil record to make inferences about relative and absolute age.
- Review the evolution of life on Earth over time using the geologic time scale.
- Explain the characteristics of fungi and compare characteristics of protists and fungi.
- Describe the characteristics of plants; explain how plants use energy from the sun.
- Describe the phases of plant life cycle; summarize the way plants respond to stimuli.
- Explain animal behavior and why behaviors develop; identify behaviors that help animals survive.
- Describe the functions of the human body systems to determine how each body system contributes to human health.
- Define homeostasis and explain what happens when body systems do not work properly.
- Describe the main function of the skeletal system and examine how it works with other systems.
- Explain the functions of the muscular system, injuries and disorders, and benefits of exercise.
- Compare and contrast the cardiovascular and lymphatic systems; make connections between parts of the cardiovascular system to explain its importance to the body and problems that can arise.
- Explain the functions, parts, and disorders of the respiratory system.
- Explain two types of digestion; identify parts of the digestive system; explain functions of the excretory system.
- Identify parts of the nervous system.
- Explain the function of the endocrine system, how hormones work, and how hormones are controlled.
- Describe the six classes of nutrients.
- Examine the benefits of eating healthily and exercising to determine the effect of exercise on the circulatory and respiratory systems.

Grade Eight: Year at a Glance

<p><u>ELA</u> Reading Units Unit 1: Short Story Study Unit 2: <i>The Pearl</i> by John Steinbeck Unit 3: Introduction to Poetry for Grade 8 Unit 4: The Works of William Shakespeare Unit 5: Analyzing Effective Speeches and Persuasive Techniques Unit 5: <i>The True Confessions of Charlotte Doyle</i> by Avi Unit 6: Poetry Review Unit 7: <i>The Autobiography of Jane Pittman</i> by Ernest J. Gaines</p> <p>Grammar Writing Weekly Spelling Units</p> <ul style="list-style-type: none"> • <i>Everyday Spelling</i> <p>Other Texts: <i>A Long Walk to Water, I Am Malala</i></p>	<p><u>Math</u> Unit 1: Exponents Unit 2: Scientific Notation Unit 3: Algebraic Linear Equations Unit 4: Lines and Linear Equations Unit 5: Systems of Linear Equations Unit 6: Functions Unit 7: The Pythagorean Theorem Unit 8: Geometric Transformations Unit 9: Congruence and Similarity Unit 10: Statistics Unit 11: Probability</p>
<p><u>Social Studies*</u> Unit 1: World Deserts Unit 2: Ancient Greece and Rome Unit 3: The Enlightenment Unit 4: The French Revolution and Romanticism Unit 5: The Industrial Revolution Unit 6: Independence for Latin America Unit 7: Immigration Unit 8: Industrialization and Urbanization in America Unit 9: Reform in Industrial America</p>	<p><u>Science*</u> Unit 1: Cells Unit 2: Tissue and Organs Unit 3: Oceanography and the Water Cycle Unit 4: Layers of the Atmosphere Unit 5: Clouds Unit 6 and beyond: I need to check with Ms. T</p>

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Grade Eight Competencies

By the end of Grade 8, students will have made significant progress in the following areas:

ELA Skill-Based Competencies

Reading

- Read and review Math, Science, and Social Studies textbooks.
- Analyze a government document.
- Define a Shakespearean tragedy and comedy; understand the epic genre.
- Interpret the meaning of a parable.
- Identify the four basic elements of narrative poetry including setting, character, plot, and theme; analyze ballad form.
- Become familiar with a variety of genres, including science fiction, mystery, folk tales, etc.
- Identify main idea, supporting details, fact and fiction; identify and provide examples of simile, metaphor, personification, alliteration, rhyme, and rhyme scheme.
- Identify steps in a process.
- Make critical comparisons across texts.
- Explain and identify examples of foreshadowing, irony, main idea, story moral, cause-effect, and time and purpose relationships.
- Identify an inferred main idea.
- Identify tone/imagery of poem and poet's meaning; distinguish simile and metaphor.
- Analyze an author's style and story mood; explain an author's perspective or viewpoint.
- Apply antagonist and protagonist terms to a story.
- Evaluate a character's behavior; explain how a character is dynamic and how events affects a character's physical and mental growth.
- Interpret symbols; apply the meaning of symbol.
- Identify and analyze the significance of a motif.
- Apply plot structure; identify themes.
- Analyze rhythm, rhyme, and rhyme scheme.
- Review and identify conflict, including both internal and external conflicts; identify themes.
- Identify author's purpose for writing; compare, contrast, predict, outline, and summarize.
- Identify dialect; explain use of dialect to establish setting and describe characters.
- Transform a written expository composition in an oral presentation.
- Identify the purpose and organizational structure of a speech; deliver a speech that presents events or ideas in a logical sequence; deliver an oral presentation enhanced with graphics; assess and identify persuasive techniques; use verbal and nonverbal elements to communicate information, including diction, emphasis, pause, pitch, rate, volume, eye contact, facial expressions, gestures, and posture; use nonverbal elements to communicate.

Vocabulary

- Acquire vocabulary through word families.
- Recognize and use prefixes and suffixes, context clues and context, connotation and denotation to understand unfamiliar vocabulary and multiple-meaning words.
- Use Greek and Latin roots to define unfamiliar vocabulary.

Grammar

- Distinguish between common and proper nouns, concrete and abstract nouns; form plural nouns; identify collective nouns.
- Identify pronouns and their antecedents; use nominative, possessive, and objective cases of personal pronouns; distinguish between reflexive and intensive pronouns; identify demonstrative, interrogative, relative, and indefinite pronouns.
- Identify the six tenses of verbs; identify action verbs, linking verbs, verbs and verb phrases, main and helping verbs; identify transitive and intransitive verbs.
- Distinguish between adjectives and adverbs, prepositions and adverbs, and coordinating and correlative conjunctions.
- Identify prepositions and prepositional phrases.
- Identify complements, direct and indirect objects, and predicate nominatives and adjectives.
- Identify gerunds and gerund phrases, participles and participial phrases, infinitive and infinitive phrases, and appositives.

- Demonstrate knowledge of the rules of capitalization and punctuation; punctuate a series of nouns with commas; use commas with introductory words, phrases, and clauses and to punctuate direct address and parenthetical expressions; use parentheses, brackets, dashes, colons, and semicolons.
- Classify a sentence as declarative, interrogative, imperative, or exclamatory; determine if a group of words is a sentence or fragment; distinguish between simple and compound sentences; identify the parts of a sentence, including simple and complete subjects and predicates; identify complex and compound-complex sentences.

Writing/Composition

- Develop multiparagraph compositions using the writing process, including prewriting, drafting, editing, revising, and publishing; compose personal narrative and poems.
- Brainstorm ideas; create graphic organizers to plan writing, including outlines.
- Write a persuasive essay.
- Compose expository paragraphs, including a variety of informational essay types.
- Write expository essays based upon a thesis statement.
- Edit and proofread compositions for spelling, punctuation, and capitalization; proofread for completeness of sentences, topic sentences, and correct paragraphing; revise for sentence structure and fluency, vivid verbs and adjectives, and figurative language; evaluate compositions for completeness and flow; evaluate writing for a sense of audience and purpose; examine writing for unity, coherence, and form.
- Publish a selection of original compositions.

Math Skill-Based Competencies

- Understand and use exponents and their properties.
- Represent and calculate with very large and very small numbers in scientific notation.
- Solve linear equations with one variable.
- Use linear equations with one variable.
- Use linear equations in two variables to represent the relationship between two quantities.
- Calculate the slope of a line.
- Represent the equation of a line in slope-intercept form.
- Graph linear equations in two variables.
- Solve a system of two linear equations in two variables using algebraic and graphical methods.
- Use systems of equations to solve real-world problems.
- Identify relations and functions.
- Represent functions in multiple forms, such as verbal, algebraic, numerical, and graphical.
- Identify linear and nonlinear functions.
- Use the Pythagorean Theorem and distance formula to solve problems.
- Find the coordinates of points after translations, reflections, rotations, and dilations.
- Understand that translations, reflections, and rotations result in congruent figures.
- Understand that dilations result in similar figures.
- Use tests to prove congruence or similarity between pairs of triangles.
- Solve problems involving proportional reasoning and similar figures.
- Construct scatter plots to show the correlation between two numerical data sets.
- Use a line of best fit in a scatter plot to make predictions.
- Calculate probabilities of independent and dependent events.

Social Studies Competencies

- In Unit 1: World Deserts, students can 1) recognize the grid pattern that parallels of latitude and meridians of longitude create on a map and globe; 2) explain the differences between climate zones; 3) identify the international date line, Arctic Circle, and Antarctic Circle; 4) explain map distortions; 5) describe characteristics of hot and cold deserts; and 6) identify the major deserts on each continent by name and major features.
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the effects of Alexander the Great's conquests; 6) describe the Roman system of government and the development of the Roman Republic; 7) discuss how Greek culture influenced Roman culture; 8) identify Julius Caesar and Caesar Augustus; 9) explain likely reasons for the decline of the Roman Empire; and 10) explain the impact of Greek and Roman culture on Western history and culture.

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- In Unit 5: The Industrial Revolution, students can 1) describe how life changed from an agricultural-based way of life; 2) discuss the impact of new inventions, such as the steam engine, steam locomotive, and the spinning jenny affected daily life; 3) explain how advancements in technology led to industry moving from homes to factories, and the development of more factories led to the development of larger cities; 4) describe capitalism as an economic system, including contributions made by Adam Smith and the concepts of laissez-faire and supply and demand; 5) describe socialism as an economic system, including contributions made by Karl Marx and Friedrich Engels; and 6) describe how the Industrial Revolution affected people's quality of life.
- In Unit 6: Independence for Latin America, students can 1) describe and locate important geographical features in Latin America; 2) describe the history of the name "Latin America"; 3) explain the contributing factors to the rise of revolution in Latin America; 4) describe various revolutions, including the Haitian Revolution, the struggle for Mexican independence, and revolutions in New Granada, Venezuela, Chile, Brazil, and other Latin American countries; 5) identify and discuss the contributions of leading revolutionaries, such as Miguel Hidalgo, Pancho Villa, Simón Bolívar, Emiliano Zapata, and many others; and 6) identify the new nations formed.
- In Unit 7: Immigration, students can 1) describe immigration patterns to the U.S. from the 1830s onward; 2) describe the tension between the ideals (America as a "melting pot") and the realities of immigration (nativism, resistance); 3) define *citizen* and *citizenship*, describe the characteristics of each, and describe the process of becoming an American citizen.
- In Unit 8: Industrialization and Urbanization in America, students can 1) explain the rapid development of industrialization in America; 2) describe the contributions of Thomas Edison and Alexander Graham Bell to industrialization; 3) identify important capitalists and industrialists in America; 4) discuss the gaps in lifestyle during the Gilded Age; and 4) describe conditions of factories and how these conditions led to the development of unions and increased government regulations on businesses.
- In Unit 9: Reform in Industrial America, students can 1) describe how demand for reform led to the development of populism; 2) describe the developments of the Progressive Era; 3) describe the call for reform for African-Americans and significant figures in that movement; 4) discuss women's suffrage and significant figures in that movement; and 5) discuss the socialist movement.

Science Competencies

- Identify parts of a cell, explain the characteristics and structure of cells, including the difference between eukaryotic and prokaryotic cells.
- Identify and explain organelles in plant and animal cells; identify and explain the function of plant and animal cells.
- Compare models of unicellular and multicellular processes.
- Explain how cells use and store energy.
- Explain how plants make and get energy.
- Explain cellular reproduction.
- Describe Mendel's heredity experiments and explain how heredity is expressed; explain how traits are inherited.
- Describe the structure of genetic material (DNA); explain how errors in translation lead to diversity; explain the role of DNA and RNA in building proteins.

- State how scientists describe and explain winds, including local winds and global winds; describe the main types of fronts and the six main climate regions.
- Explain how weather forecasters predict the weather and how technology has helped to improve weather forecasting; identify factors that can cause climate change.
- Explain how waves form, the cause of tides, and how surface currents affect climate.
- Identify the characteristics of Earth's crust, mantle, and core; explain the theory of plate tectonics and describe the three types of plate boundaries.
- Describe the two types of volcanic eruptions and explain what happens when a volcano erupts.
- Describe how the energy of an earthquake travels through Earth, how scientists locate the epicenter of an earthquake, and the kinds of damage an earthquake can cause.
- Summarize the four parts of natural selection to explain how natural selection works.
- Explain the role of genetic and environmental factors in the theory of evolution by natural selection.
- Explain how fossils change over time; apply information from fossils and the fossil record to make inferences about relative and absolute age.
- Review the evolution of life on Earth over time using the geologic time scale.
- Explain the characteristics of fungi and compare characteristics of protists and fungi.
- Describe the characteristics of plants; explain how plants use energy from the sun.
- Describe the phases of plant life cycle; summarize the way plants respond to stimuli.
- Explain animal behavior and why behaviors develop; identify behaviors that help animals survive.
- Describe the functions of the human body systems to determine how each body system contributes to human health.
- Define homeostasis and explain what happens when body systems do not work properly.
- Describe the main function of the skeletal system and examine how it works with other systems.
- Explain the functions of the muscular system, injuries and disorders, and benefits of exercise.
- Compare and contrast the cardiovascular and lymphatic systems; make connections between parts of the cardiovascular system to explain its importance to the body and problems that can arise.
- Explain the functions, parts, and disorders of the respiratory system.
- Explain two types of digestion; identify parts of the digestive system; explain functions of the excretory system.
- Identify parts of the nervous system.
- Explain the function of the endocrine system, how hormones work, and how hormones are controlled.
- Describe the six classes of nutrients.
- Examine the benefits of eating healthily and exercising to determine the effect of exercise on the circulatory and respiratory systems.