Cumberland County Schools

Parent Curriculum Guide

North Carolina Standard Course of Study

Seventh Grade
ENGLISH LANGUAGE ARTS

By the time students reach the seventh grade, their literary experiences are well-rounded and span a variety of genres. At this stage, they read literature from and about the Middle Ages around the world in order to gain insights into character, and they consider themes of perseverance and determination in a wide variety of fictional and historical texts. By the end of seventh grade, they are ready to begin studying complex aspects of literature.

Continuing with skills developed during the previous year’s curriculum, students study morphology, etymology, and word history, building their own dictionaries of words they have investigated. Students write in a variety of genres, including responses to literature, reflective essays, and stories. In addition, they create multimedia presentations. Students also write research essays about an author they have read and develop their skills of argumentation.

The following grade-specific standards define what students should understand and be able to do by the end of the year to progress towards college and career readiness in each major area.

### Reading: Literature

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<th>Craft and Structure</th>
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<th>Range of Reading and Level of Text Complexity</th>
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<tr>
<td>1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</td>
<td>4. Determine the meaning of words and phrases as they are used in a text, including figurative and connotative meanings; analyze the impact of rhymes and other repetitions of sounds (e.g., alliteration) on a specific verse or stanza of a poem or section of a story or drama.</td>
<td>7. Compare and contrast a written story, drama, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., lighting, sound, color, or camera focus and angles in a film).</td>
<td>10. By the end of the year, read and comprehend literature, including stories, dramas, and poems, in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.</td>
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<td>2. Determine a theme or central idea of a text and analyze its development over the course of the text; provide an objective summary of the text.</td>
<td>5. Analyze how a drama’s or poem’s form or structure (e.g., soliloquy, sonnet) contributes to its meaning.</td>
<td>8. (Not applicable to literature)</td>
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<td>3. Analyze how particular elements of a story or drama interact (e.g., how setting shapes the characters or plot).</td>
<td>6. Analyze how an author develops and contrasts the points of view of different characters or narrators in a text.</td>
<td>9. Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history.</td>
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### Reading: Informational Text

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<td>1. Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.</td>
<td>4. Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.</td>
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<td>2. Determine two or more central ideas in a text and analyze their development over the course of the text; provide an objective summary of the text.</td>
<td>5. Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.</td>
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<td>3. Analyze the interactions between individuals, events, and ideas in a text (e.g., how ideas influence individuals or events, or how individuals influence ideas or events).</td>
<td>6. Determine an author’s point of view or purpose in a text and analyze how the author distinguishes his or her position from that of others.</td>
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Reading: Informational Text (Continued)

Integration of Knowledge and Ideas
7. Compare and contrast a text to an audio, video, or multimedia version of the text, analyzing each medium’s portrayal of the subject (e.g., how the delivery of a speech affects the impact of the words).
8. Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims.
9. Analyze how two or more authors writing about the same topic shape their presentations of key information by emphasizing different evidence or advancing different interpretations of facts.

Range of Reading and Level of Text Complexity
10. By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

Writing

Text Types and Purposes
1. Write arguments to support claims with clear reasons and relevant evidence.
   a. Introduce claim(s), acknowledge alternate or opposing claims, and organize the reasons and evidence logically.
   b. Support claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
   c. Use claim(s) with logical reasoning and relevant evidence, using accurate, credible sources and demonstrating an understanding of the topic or text.
   d. Establish and maintain a formal style.
   e. Provide a concluding statement or section that follows from and supports the argument presented.
2. Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.
   a. Introduce a topic clearly, previewing what is to follow; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.
   b. Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.
   c. Use appropriate transitions to create cohesion and clarify the relationships among ideas and concepts.
   d. Use precise language and domain-specific vocabulary to inform about or explain the topic.
   e. Establish and maintain a formal style.
   f. Provide a concluding statement or section that follows from and supports the information or explanation presented.
3. Write narratives to develop real or imagined experiences or events using effective technique, relevant descriptive details, and well-structured event sequences.
   a. Engage and orient the reader by establishing a context and point of view and introducing a narrator and/or characters; organize an event sequence that unfolds naturally and logically.
   b. Use narrative techniques, such as dialogue, pacing, and description, to develop experiences, events, and/or characters.
   c. Use a variety of transition words, phrases, and clauses to convey sequence and signal shifts from one time frame or setting to another.
   d. Use precise words and phrases, relevant descriptive details, and sensory language to capture the action and convey experiences and events.
   e. Provide a conclusion that follows from and reflects on the narrated experiences or events.
Writing (Continued)

Production and Distribution of Writing
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1–3.)
5. With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed.
6. Use technology, including the Internet, to produce and publish writing and link to and cite sources as well as to interact and collaborate with others, including linking to and citing sources.

Research to Build and Present Knowledge
7. Conduct short research projects to answer a question, drawing on several sources and generating additional related, focused questions for further research and investigation.
8. Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
   a. Apply grade 7 Reading standards to literature (e.g., “Compare and contrast a fictional portrayal of a time, place, or character and a historical account of the same period as a means of understanding how authors of fiction use or alter history”).
   b. Apply grade 7 Reading standards to literary nonfiction (e.g. “Trace and evaluate the argument and specific claims in a text, assessing whether the reasoning is sound and the evidence is relevant and sufficient to support the claims”).

Range of Writing
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of discipline-specific tasks, purposes, and audiences.

Speaking and Listening

Comprehension and Collaboration
1. Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others’ ideas and expressing their own clearly.
   a. Come to discussions prepared, having read or researched material under study; explicitly draw on that preparation by referring to evidence on the topic, text, or issue to probe and reflect on ideas under discussion.
   b. Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.
   c. Pose questions that elicit elaboration and respond to others’ questions and comments with relevant observations and ideas that bring the discussion back on topic as needed.
   d. Acknowledge new information expressed by others and, when warranted, modify their own views.
2. Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study.
3. Delineate a speaker’s argument and specific claims, evaluating the soundness of the reasoning and the relevance and sufficiency of the evidence.
Speaking and Listening (Continued)

Presentation of Knowledge and Ideas
4. Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.
5. Include multimedia components and visual displays in presentations to clarify claims and findings and emphasize salient points.
6. Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate.

Language

Conventions of Standard English
1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
   a. Ensure that pronouns are in the proper case (subjective, objective, possessive).
   b. Use intensive pronouns (e.g., *myself, ourselves*).
   c. Recognize and correct inappropriate shifts in pronoun number and person.
   d. Recognize and correct vague pronouns (i.e., ones with unclear or ambiguous antecedents).
   e. Recognize variations from standard English in their own and others’ writing and speaking, and identify and use strategies to improve expression in conventional language.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
   a. Use punctuation (commas, parentheses, dashes) to set off nonrestrictive/parenthetical elements.
   b. Spell correctly.

Knowledge of Language
3. Use knowledge of language and its conventions when writing, speaking, reading, or listening.
   a. Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.

Vocabulary Acquisition and Use
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.
   a. Use context (e.g., the overall meaning of a sentence or paragraph; a word’s position or function in a sentence) as a clue to the meaning of a word or phrase.
   b. Use common, grade-appropriate Greek or Latin affixes and roots as clues to the meaning of a word (e.g., *belligerent, bellicose, rebel*).
   c. Consult general and specialized reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation of a word or determine or clarify its precise meaning or its part of speech.
   d. Verify the preliminary determination of the meaning of a word or phrase (e.g., by checking the inferred meaning in context or in a dictionary).
5. Demonstrate understanding of figurative language, word relationships, and nuances in word meanings.
   a. Interpret figures of speech (e.g., literary, biblical, and mythological allusions) in context.
   b. Use the relationship between particular words (e.g., synonym/antonym, analogy) to better understand each of the words.
   c. Distinguish among the connotations (associations) of words with similar denotations (definitions) (e.g., refined, respectful, polite, diplomatic, condescending).
6. Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
The writer of this piece

- introduces a claim (stated late in the essay)
  - . . . I disagree with the idea to put cameras in classrooms. This plan should not be put to action.

- acknowledges alternate or opposing claims
  - Instead of solving problems, cameras would cause the problems.

- supports the claim with logical reasoning and relevant evidence, demonstrating an understanding of the topic.
  - [Cameras are not necessary because] If something horrible happened, somebody in class would usually report it, or it would just be obvious to the teacher when he came back that something had happened.
  - . . . we already have cameras in the halls . . .
  - Our school district already has a low budget . . .

- uses words, phrases, and clauses to create cohesion and clarify the relationships among the claim, reasons, and evidence
  - If . . . already . . . why . . . so . . . Some students . . . Other students . . . These students... All of these different students . . .

- establishes and maintains a formal style
  - When students are in their classrooms, teachers are in the classroom too, usually. But when a teacher goes out of the classroom, what usually happens is either everything goes on as usual, or the students get a little more talkative.
  - Different students react differently when there is a camera in the room.

- provides a concluding statement that follows from and supports the argument presented
  - Instead of solving problems, cameras would cause the problems. That is why I disagree with the idea to put cameras in classrooms. This plan should not be put to action.

- demonstrates good command of the conventions of standard written English (with occasional errors that do not interfere materially with the underlying message)

Video Cameras in Classrooms

You are seated in class as your teacher explains and points things out on the whiteboard. You twitch your hand, accidentally nudging your pencil, which rolls off your desk and clatters to the floor. As you lean over to pick up your pencil, your cell phone falls out of your coat pocket! Luckily you catch it without your teacher seeing, but it is in plain view of the video camera’s shiny lens that points straight at you. The classroom phone rings, and after a brief conversation, your teacher walks over to your desk and kneels down beside you. “About that cell phone of yours . . .” How did that get you in trouble? How could it possibly be a good idea to put cameras in classrooms?

When students are in their classrooms, teachers are in the classroom too, usually. But when a teacher goes out of the classroom, what usually happens is either everything goes on as usual, or the students get a little more talkative. Cameras aren’t there because people talk a lot. It is the teacher’s job to keep people quiet. If something horrible happened, somebody in class would usually report it, or it would just be obvious to the teacher when he came back that something had happened.

If we already have cameras in the halls, why spend the money to get thirty more cameras for all the different classrooms? Our school district already has a low budget, so we would be spending money on something completely unnecessary. There hasn’t been camera-worthy trouble in classrooms. Cameraworthy trouble would be bad behavior every time a teacher left the room. There is no reason to install cameras that might just cause trouble, both for the students and for the budget.

Different students react differently when there is a camera in the room. Some students get nervous and flustered, trying hard to stay focused on their work with a camera focused on them. 90% of students claim that they do better work when they are calmer, and cameras are not going to help. Other students look at cameras as a source of entertainment. These students will do things such as wave at the camera, make faces, or say hi to the people watching through the camera. This could be a big distraction for others who are trying to learn and participate in class. Still other students will try to trick the camera. They will find a way to block the lens or do something that the camera will not be likely to catch. All of these different students will be distracted by the cameras in their classrooms.

Instead of solving problems, cameras would cause the problems. That is why I disagree with the idea to put cameras in classrooms. This plan should not be put to action.
MATHEMATICS

The middle school mathematics curriculum is designed to develop deep understanding of foundational math ideas. In order to allow time for such understanding, each grade level focuses on concepts and skills related to four focal points. The scope and sequence of the curriculum allows students to develop understanding of concepts, key ideas, and the structure of mathematics. In grade 7, instructional time should focus on four critical areas: (1) developing understanding of and applying proportional relationships; (2) developing understanding of operations with rational numbers and working with expressions and linear equations; (3) solving problems involving scale drawings and informal geometric constructions, and working with two- and three-dimensional shapes to solve problems involving area, surface area, and volume; and (4) drawing inferences about populations based on samples. Through this study, students will also develop behaviors of proficient mathematicians. They will learn how to justify their thinking, reason abstractly, use precise language, and notice patterns.

Ratios and Proportional Relationships

Analyze proportional relationships and use them to solve real-world and mathematical problems.
1. Compute unit rates associated with ratios of fractions, including ratios of lengths, areas, and other quantities measured in like or different units.
2. Recognize and represent proportional relationships between quantities.
   a. Decide whether two quantities are in a proportional relationship, e.g., by testing for equivalent ratios in a table or graphing on a coordinate plane and observing whether the graph is a straight line through the origin.
   b. Identify the constant of proportionality (unit rate) in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
   c. Represent proportional relationships by equations.
   d. Explain what a point \((x, y)\) on the graph of a proportional relationship means in terms of the situation, with special attention to the points \((0, 0)\) and \((1, r)\) where \(r\) is the unit rate.
3. Use proportional relationships to solve multistep ratio and percent problems.

The Number System

Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.
1. Apply and extend previous understandings of addition and subtraction to add and subtract rational numbers; represent addition and subtraction on a horizontal or vertical number line diagram.
   a. Describe situations in which opposite quantities combine to make 0.
   b. Understand \(p + q\) as the number located a distance \(|q|\) from \(p\), in the positive or negative direction depending on whether \(q\) is positive or negative. Show that a number and its opposite have a sum of 0 (are additive inverses). Interpret sums of rational numbers by describing real-world contexts.
   c. Understand subtraction of rational numbers as adding the additive inverse, \(p - q = p + (-q)\). Show that the distance between two rational numbers on the number line is the absolute value of their difference, and apply this principle in real-world contexts.
   d. Apply properties of operations as strategies to add and subtract rational numbers.
2. Apply and extend previous understandings of multiplication and division of fractions to multiply and divide rational numbers.
   a. Understand that multiplication is extended from fractions to rational numbers by requiring that operations continue to satisfy the properties of operations, particularly the distributive property, leading to products such as \((-1)(-1) = 1\) and the rules for multiplying signed numbers. Interpret products of rational numbers by describing real-world contexts.
   b. Understand that integers can be divided, provided that the divisor is not zero, and every quotient of integers (with non-zero divisor) is a rational number. If \(p\) and \(q\) are integers, then \(-p/q = (-p)/q = p/(-q)\). Interpret quotients of rational numbers by describing real-world contexts.
   c. Apply properties of operations as strategies to multiply and divide rational numbers.
   d. Convert a rational number to a decimal using long division; know that the decimal form of a rational number terminates in \(0s\) or eventually repeats.
3. Solve real-world and mathematical problems involving the four operations with rational numbers.
Expressions and Equations

Use properties of operations to generate equivalent expressions.
1. Apply properties of operations as strategies to add, subtract, factor, and expand linear expressions with rational coefficients.
2. Understand that rewriting an expression in different forms in a problem context can shed light on the problem and how the quantities in it are related.

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.
3. Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals), using tools strategically. Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computation and estimation strategies.
4. Use variables to represent quantities in a real-world or mathematical problem, and construct simple equations and inequalities to solve problems by reasoning about the quantities.
   a. Solve word problems leading to equations of the form $px + q = r$ and $p(x + q) = r$, where $p$, $q$, and $r$ are specific rational numbers. Solve equations of these forms fluently. Compare an algebraic solution to an arithmetic solution, identifying the sequence of the operations used in each approach.
   b. Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where $p$, $q$, and $r$ are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.

Geometry

Draw, construct, and describe geometrical figures and describe the relationships between them.
1. Solve problems involving scale drawings of geometric figures, including computing actual lengths and areas from a scale drawing and reproducing a scale drawing at a different scale.
2. Draw (freehand, with ruler and protractor, and with technology) geometric shapes with given conditions. Focus on constructing triangles from three measures of angles or sides, noticing when the conditions determine a unique triangle, more than one triangle, or no triangle.
3. Describe the two-dimensional figures that result from slicing three dimensional figures, as in plane sections of right rectangular prisms and right rectangular pyramids.

Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.
4. Know the formulas for the area and circumference of a circle and use them to solve problems; give an informal derivation of the relationship between the circumference and area of a circle.
5. Use facts about supplementary, complementary, vertical, and adjacent angles in a multi-step problem to write and solve simple equations for an unknown angle in a figure.
6. Solve real-world and mathematical problems involving area, volume and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.
Seventh grade students focus on using evidence, models, and reasoning to form scientific explanations. Traditional laboratory experiences provide opportunities to demonstrate how science is constant, historic, probabilistic, and replicable. Although there are no fixed steps that all scientists follow, scientific investigations usually involve collecting relevant evidence, the use of logical reasoning, the application of imagination to devise hypotheses, and explanations to make sense of collected evidence. Student engagement in scientific investigation provides background for understanding the nature of scientific inquiry. In addition, the science process skills necessary for inquiry are acquired through active experience. The process skills support development of reasoning and problem-solving ability and are the core of scientific methodologies.

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**Physical Science**

**Forces and Motion**

Understand motion, the effects of forces on motion, and the graphical representations of motion.

1. Explain how the motion of an object can be described by its position, direction of motion, and speed with respect to some other object.
2. Explain the effects of balanced and unbalanced forces acting on an object (including friction, gravity, and magnets).
3. Illustrate the motion of an object using a graph to show a change in position over a period of time.
4. Interpret distance versus time graphs for constant speed and variable motion.
Physical Science (Continued)

Energy: Conservation and Transfer

Explain how the properties of some materials change as a result of heating and cooling.
1. Explain how kinetic and potential energy contribute to the mechanical energy of an object.
2. Explain how energy can be transformed from one form to another (specifically potential energy and kinetic energy) using a model or diagram of a moving object (roller coaster, pendulum, or cars on ramps as examples).
3. Recognize that energy can be transferred from one system to another when two objects push or pull on each other over a distance (work) and electrical circuits require a complete loop through which an electrical current can pass.
4. Explain how simple machines such as inclined planes, pulleys, levers, and wheel and axles are used to create mechanical advantage and increase efficiency.

Earth Science

Earth Systems, Structures, and Processes

Understand how the cycling of matter (water and gases) in and out of the atmosphere relates to Earth's atmosphere, weather, and climate and the effects of the atmosphere on humans.
1. Compare the composition, properties and structure of Earth's atmosphere to include: mixtures of gases and differences in temperature and pressure within layers.
2. Explain how the cycling of water in and out of the atmosphere and atmospheric conditions relate to the weather patterns on Earth.
3. Explain the relationship between the movement of air masses, high and low pressure systems, and frontal boundaries to storms (including thunderstorms, hurricanes, and tornadoes) and other weather conditions that may result.
4. Predict weather conditions and patterns and based on information obtained from:
   - Weather data collected from direct observations and measurement (wind speed and direction, air temperature, humidity, and air pressure).
   - Weather maps, satellites, and radar.
   - Cloud shapes and types and associated elevation.
5. Explain the influence of convection, global winds, and the jet stream on weather and climate conditions.
6. Conclude that the good health of humans requires monitoring the atmosphere, maintaining air quality, and stewardship.

Life Science

Structures and Functions of Living Organisms

Understand the processes, structures and functions of living organisms that enable them to survive, reproduce and carry out the basic functions of life.
1. Compare the structures and life functions of single-celled organisms that carry out all of the basic functions of life including euglena, amoeba, paramecium, and volvox.
2. Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts and mitochondria, and vacuoles).
3. Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
4. Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
SOCIAL STUDIES

Seventh graders study the world from the Age of Exploration to contemporary times in order to understand the implications of increased global interactions. The focus will remain on the discipline of geography by using the themes of location, place, movement, human-environmental interaction and region to understand modern societies and regions. This course will guide students through patterns of change and continuity with a focus on conflict and cooperation, economic development, population shifts, political thought and organization, cultural values and beliefs, and the impact of environment over time. Through an investigation of the various factors that shaped the development of societies and regions in the modern world and global interactions, students will examine both similarities and differences. A conscious effort should be made to include an integrated study of various societies and regions from every continent (Africa, Asia, Europe, the Americas, and Australia).

History

Use historical thinking to analyze various modern societies.
1. Construct charts, graphs, and historical narratives to explain particular events or issues over time.
2. Summarize the literal meaning of historical documents in order to establish context.
3. Use primary and secondary sources to interpret various historical perspectives.

Understand the implications of global interactions.
4. Analyze the effects of social, economic, military, and political conflict among nations, regions, and groups (e.g., war, genocide, imperialism, and colonization).
5. Evaluate the effectiveness of cooperative efforts and consensus building among nations, regions, and groups (e.g., Humanitarian efforts, United Nations, World Health Organization, Non-Governmental Organizations, European Union, and Organization of American States).
6. Explain how increased global interaction accelerates the pace of innovation in modern societies (e.g., advancements in transportation, communication networks, and business practices).
7. Analyze the economic, political, and social impacts of disease (e.g., smallpox, malaria, bubonic plague, AIDS and avian flu) in modern societies.

Life Science

Evolution and Genetics

Understand the relationship of the mechanisms of cellular reproduction, patterns of inheritance, and external factors to potential variation among offspring.
1. Explain why offspring that result from sexual reproduction (fertilization and meiosis) have greater variation than offspring that result from asexual reproduction (budding and mitosis).
2. Infer patterns of heredity using information from Punnett squares and pedigree analysis.
3. Explain the impact of the environment and lifestyle choices on biological inheritance (to include common genetic diseases and survival).
Geography and Environmental Literacy

Understand how geography, demographic trends, and environmental conditions shape modern societies and regions.
1. Explain how environmental conditions and human response to those conditions influence modern societies and regions (e.g., natural barriers, scarcity of resources, and factors that influence settlement).
2. Explain how demographic trends (e.g., population growth and decline, push/pull factors, and urbanization) lead to conflict, negotiation, and compromise in modern societies and regions.
3. Explain how natural disasters (e.g., flooding, earthquakes, monsoons, and tsunamis), preservation efforts, and human modification of the environment (e.g., recycling, planting trees, deforestation, pollution, irrigation systems, and climate change) affect modern societies and regions.

Apply the tools of a geographer to understand modern societies and regions.
1. Construct maps, charts, and graphs to explain data about geographic phenomena (e.g., migration patterns and population and resource distribution patterns).
2. Use maps, charts, graphs, geographic data, and available technology tools (i.e., GPS and GIS software) to interpret and draw conclusions about social, economic, and environmental issues in modern societies and regions.

Economics and Financial Literacy

Understand the economic activities of modern societies and regions.
1. Explain how competition for resources affects the economic relationship among nations (e.g., colonialism, imperialism, globalization, and interdependence).
2. Explain the implications of economic decisions in national and international affairs (e.g., OPEC, NAFTA, G20, WTO, EU and economic alliances).
3. Summarize the main characteristics of various economic systems (e.g., capitalism, socialism, communism; market, mixed, command, and traditional economies).
4. Explain how personal financial decision-making impacts quality of life (e.g., credit, savings, investing, borrowing, and giving).

Civics and Governance

Understand the development of government in modern societies and regions.
1. Summarize the ideas that have shaped political thought in various societies and regions (e.g., Enlightenment and Scientific Revolution, democracy, communism, and socialism).
2. Evaluate how the Western concept of democracy has influenced the political ideas of modern societies.
3. Compare the requirements for (e.g., age, gender, legal, and economic status) and responsibilities of citizenship under various governments in modern societies (e.g., voting, taxes, and military service).
4. Compare the sources of power and governmental authority in various societies (e.g., monarchs, dictators, elected officials, anti-governmental groups, and religious, political factions).

Culture

Understand how cultural values influence relationships between individuals, groups and political entities in modern societies and regions.
1. Explain how culture unites and divides modern societies and regions (e.g., enslavement of various peoples, caste system, religious conflict, and Social Darwinism).
2. Explain how cultural expressions (e.g., art, literature, architecture, and music) influence modern society.
INFORMATION AND TECHNOLOGY

The Information and Technology curriculum prepares students to use computer technology for school, work, and personal use; for accessing and applying information; for problem solving; and for communicating ideas and data. Building on skills learned at the elementary level, middle school students will leave each grade level with a greater, more in-depth ability to utilize the tools of technology not only for research but as avenues of reinforcement for learned concepts.

Sources of Information
Evaluate information resources based on specified criteria.

1. Evaluate resources for reliability.
2. Evaluate content for relevance to the assigned task.
3. Evaluate resources for point of view, bias, values, or intent of information.

Technology as a Tool
Use technology and other resources for assigned tasks.

1. Use appropriate technology tools and other resources to access information.
2. Use appropriate technology tools and other resources to organize information.
3. Use appropriate technology tools and other resources to design products to share information with others.

Research Process
Apply a research process to complete given tasks.

1. Implement a research process activity that is group selected.
2. Implement an independent research process activity that is student selected.

Safety and Ethical Issues
Apply responsible behaviors when using information and technology resources.

1. Apply ethical behavior when using resources.
2. Apply the safety precautions necessary when using online resources.

MUSIC
Music is deeply embedded in our existence, adding depth and dimension to our environment, exalting the human spirit, and contributing in important ways to our quality of life. The processes of creating, performing, and understanding music are the primary goals of the music program. While performance is an important aspect of music study, it does not substitute for students' development of creative processes and of broader integrated experiences and understandings. Through creating, students are able to be imaginative, think critically, and approach tasks in new or different ways.
### Musical Literacy

**Apply the elements of music and musical techniques in order to sing and play music with accuracy and expression.**
1. Use developing tone and discriminating pitch when performing music.
2. Use the fundamental techniques necessary to sing and/or play an instrument.
3. Use expressive elements while singing and/or playing a varied repertoire of music.

**Interpret the sound and symbol systems of music.**
1. Interpret standard musical notation for whole, half, quarter, eighth, sixteenth, and dotted note and rest durations in 2/4, 3/4, 4/4, and 6/8 meter signatures.
2. Interpret, through instrument and/or voice, standard notation symbols for pitch in appropriate clefs.
3. Classify standard notation symbols for pitch, rhythm, dynamics, tempo, articulation, and expression.

**Create music using a variety of sound and notational sources.**
1. Produce short rhythmic improvisations using a variety of traditional and non-traditional sound sources.
2. Construct arrangements of simple pieces for voices or instruments other than those for which the pieces were written.

### Musical Response

**Understand the interacting elements to respond to music and music performances.**

1. Execute specific gestures of a conductor in response to the various elements of music.
2. Analyze aural musical examples representing diverse genres, styles, and cultures, using appropriate music terminology.
3. Evaluate the quality and effectiveness of performances, compositions, arrangements, and improvisations by applying specific criteria appropriate for the style of the music.

### Contextual Relevancy

**Understand global, interdisciplinary, and 21st century connections with music.**

1. Understand music in relationship to the geography, history, and culture of modern societies from the emergence of the First Global Age (1450) to the present.
2. Understand the relationships between music and concepts from other areas.
3. Understand the functions music serves, roles of musicians, and conditions under which music is typically performed.
From the beginning of time, the compulsion to create a visual vocabulary has been as innate in every society as the desire to acquire a system of spoken symbols. A child discovers objects, those objects take on meaning, and this meaning is denoted and communicated through the various means of expression available to that child. The visual arts program is designed to develop visual literacy by promoting fluency in the various modes of visual communication. Students learn the visual arts by using a wide range of subject matter, media, and means to express their ideas, emotions, and knowledge. Through participation in visual arts, students have the opportunity to recognize and celebrate the creativity and diversity inherent in all of us.

**Visual Literacy**

- **Use the language of visual arts to communicate effectively.**
  1. Use art vocabulary to analyze art.
  2. Understand how the Principles of Design aid in the planning and creating of personal art.
  3. Identify themes in art.
  4. Understand the relationship between the Elements of Art and the Principles of Design.

- **Apply creative and critical thinking skills to artistic expression.**
  1. Evaluate solutions to artistic problems.
  2. Use observation skills of the environment and personal experiences to create original imagery.
  3. Create original art emphasizing selected elements and principles to express ideas or feelings.

- **Create art using a variety of tools, media, and processes, safely and appropriately.**
  1. Apply safety knowledge to maintain a safe and orderly personal work space.
  2. Compare media in order to choose the best option to create art.
  3. Compare techniques and processes to create art.

**Contextual Relevancy**

- **Understand the global, historical, societal, and cultural contexts of the visual arts.**
  1. Understand the visual arts in relationship to the geography, history, and culture of modern societies from the emergence of the First Global Age (1450) to the present.
  2. Analyze art from various historical periods in terms of style, subject matter, and movements.
  3. Analyze the effect of geographic location and physical environment on the media and subject matter of African, Asian, and Australian art.

- **Understand the interdisciplinary connections and life applications of the visual arts.**
  1. Analyze careers in art and a variety of other careers in terms of the art skills needed to be successful.
  2. Select skills and information needed from other disciplines to solve artistic problems.
  3. Implement collaborative planning and art skills to solve problems.
  4. Interpret visual images from media sources and the immediate environment through the context of art.

**Critical Response**

- **Use critical analysis to generate responses to a variety of prompts.**
  1. Generate responses to art using both personal and formal criteria.
  2. Implement formative and summative evaluations of personal art.
**Healthful Living**

The Healthful Living curriculum is a combination of health education and physical education. It includes a planned, sequential K-12 program that integrates information about specific health topics. The mission is to provide students with a program that is capable of enhancing the quality of life, raising the level of health, and favorably influencing the learning process.

**Mental and Emotional Health**

- **Analyze the relationship between healthy expression of emotions, mental health, and healthy behavior.**
  1. Interpret the transition of adolescence, including emotions in flux.
  2. Infer the potential outcome from impulsive behaviors.
  3. Organize resources (family, school, community) for mental and emotional health problems.

- **Evaluate positive stress management strategies.**
  1. Critique a variety of stress management techniques.
  2. Design a stress management plan that is appropriate for the situation and individual traits and skills.

- **Apply help-seeking strategies for depression and mental disorders.**
  1. Identify resources that would be appropriate for treating common mental disorders.
  2. Implement strategies to seek help from an adult for self-destructive thoughts or behaviors.

**Personal and Consumer Health**

- **Understand wellness, disease prevention, and recognition of symptoms.**
  1. Explain health and academic consequences of inadequate rest and sleep.
  2. Explain environmental, psychological, and social factors affecting excessive sun exposure.

- **Analyze the immune system in terms of the organs, their functions, and their interrelationships.**
  1. Analyze the immune system in terms of the organs, their functions, and their interrelationships.

- **Evaluate health information and products.**
  1. Recognize health quackery as a false claim for a cure and the ploys quacks use to promote unproven products and services.
  2. Critique misconceptions about health and the efficacy of health products and services.

- **Analyze necessary steps to prevent and respond to unintentional injury.**
  1. Deconstruct how the interaction of individual behaviors, the environment, and other factors cause or prevent injuries.
  2. Design plans that reduce the risk of fire-related injuries at home, in school, and in the community at large.
  3. Design plans that reduce the risk of fire-related injuries at home, in school, and in the community at large.
  4. Create a plan to reduce the risk of water-related injuries.
<table>
<thead>
<tr>
<th><strong>Interpersonal Communication and Relationships</strong></th>
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</thead>
<tbody>
<tr>
<td><strong>Understand healthy and effective interpersonal communication and relationships.</strong></td>
</tr>
<tr>
<td>1. Contrast characteristics of healthy and unhealthy relationships.</td>
</tr>
<tr>
<td>2. Predict short-term and long-term consequences of violence to perpetrators, victims, and bystanders.</td>
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<tr>
<td>3. Illustrate strategies that can be used to manage anger in healthy and non-hurtful ways.</td>
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<tr>
<td>4. Use structured thinking to avoid becoming a perpetrator or victim in cyber-bullying.</td>
</tr>
<tr>
<td>5. Explain why tolerance is beneficial in a society characterized by diversity.</td>
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<tr>
<td>6. Illustrate the appropriate role of bystanders in preventing and stopping bullying and violence.</td>
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**Remember abstinence outside of marriage from sexual activity as a positive choice for young people.**
1. Explain the effects of culture, media, and family values on decisions related to becoming or remaining abstinent.
2. Identify the positive benefits of abstinence from sexual activity outside of marriage.

**Apply strategies that develop and maintain reproductive and sexual health.**
1. Recognize common STDs (including HIV and HPV), modes of transmission, symptoms, effects if untreated, and methods of prevention.
2. Summarize the safe and effective use of FDA-approved methods of preventing sexually transmitted diseases.
3. Recognize that sexual harassment may contribute to sexual abuse and sexual assault and the feelings that result from these behaviors. 
4. Use strategies to be safe, reject inappropriate or unwanted sexual advances, and report incidences to an adult when assistance is needed.

<table>
<thead>
<tr>
<th><strong>Nutrition and Physical Activity</strong></th>
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<tbody>
<tr>
<td><strong>Apply tools (MyPyramid, Food Facts Label) to plan and employ healthy nutrition and fitness.</strong></td>
</tr>
<tr>
<td>1. Use the Dietary Guidelines for Americans to eat nutrient-dense foods in moderation.</td>
</tr>
<tr>
<td>2. Analyze food fact labels for nutrients such as proteins, fats, and carbohydrates.</td>
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</tbody>
</table>

**Apply strategies to consume a variety of nutrient-dense foods and beverages in moderation.**
1. Compare weight management strategies for healthy eating patterns, including attention to portion and serving sizes. 
2. Recall the health benefits of consuming more water. 

**Analyze the relationship of nutrition, fitness, and healthy weight management to the prevention of diseases such as diabetes, obesity, cardiovascular diseases, and eating disorders.**
1. Attribute a positive body image to healthy self-esteem and the avoidance of risky eating behaviors.

**Apply lifelong nutrition and health-related fitness concepts to enhance quality of life.**
1. Design goals for increasing physical activity and strategies for achieving those goals. 
2. Implement a personal fitness plan that balances caloric intake and expenditure.

<table>
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<tr>
<th><strong>Alcohol, Tobacco, and Other Drugs</strong></th>
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<tr>
<td><strong>Understand the health risks associated with alcohol, tobacco, and other drug use.</strong></td>
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<tr>
<td>1. Explain the common sequence of substance abuse that leads to serious health risks.</td>
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<tr>
<td>2. Explain health risks resulting from injection drug use.</td>
</tr>
<tr>
<td>3. Predict consequences of abuse of over-the-counter medicines from information provided by the manufacturers of these medicines.</td>
</tr>
<tr>
<td>4. Explain how drug dependence and addiction create barriers to achieving personal goals.</td>
</tr>
</tbody>
</table>

**Apply risk reduction behaviors to protect self and others from alcohol, tobacco, and other drug use.**
1. Use communication strategies to avoid the consequences of tobacco, alcohol, and other drug use. 
2. Design methods of avoiding the consequences of tobacco, including addiction, by seeking resources of prevention and cessation.
Physical Education

Motor Skill Development

Apply competent motor skills and movement patterns needed to perform a variety of physical activities.
1. Execute complex combinations of movement specific to game, sport, or physical activity settings in at least one of the following activities or compositions: aquatics, team sports, individual sports, dual sports, outdoor pursuits, self-defense, dance, and gymnastics.
2. Illustrate fundamental motor skills and complex skills that contribute to movement proficiency in small sided game situations.
3. Execute basic offensive and defensive strategies for an invasion game or net/wall activity.
4. Create movement combinations in rhythmic activities with an emphasis on keeping to the beat of the music.

Movement Concepts

Understand concepts, principles, strategies, and tactics that apply to the learning and performance of movement.
1. Apply concepts from other disciplines, such as physics, to movement skills.
2. Contrast information from a variety of sources, both internal and external, in terms of their relevance to guiding, improving, and modifying performance.
3. Apply game strategies and tactics at appropriate times and in appropriate ways.
4. Understand the relationship between one’s social life and healthy habits such as physical activity, nutrition, and sleep.

Health-Related Fitness

Understand the importance of achieving and maintaining a health-enhancing level of physical fitness.
1. Use the gender and age-related, health-related physical fitness standard defined by an approved fitness assessment to self-evaluate fitness levels.
2. Analyze data to examine the relationship between physical activity and caloric intake.
3. Illustrate a variety of training methods.

Personal/Social Responsibility

Use behavioral strategies that are responsible and enhance respect of self and others and value activity.
1. Contrast between appropriate and inappropriate strategies to seek greater independence from adults when completing assigned tasks.
2. Contrast between appropriate and inappropriate strategies to communicating ideas and feelings.
3. Understand the role of diversity in physical activity, respecting limitations and strengths of members of a variety of groups.