

GRADE FIVE

GRADE LEVEL STANDARDS

ENGLISH LANGUAGE ARTS

LANGUAGE

- ◆ Apply understanding of agreed-upon rules and individual roles in order to make decisions.
- ◆ Gather relevant information for a research project or composition through interviews.
- ◆ Give oral presentations for various purposes, showing appropriate changes in delivery (gestures, vocabulary, pace, visuals).
- ◆ Use teacher-developed assessment criteria to prepare their presentations.
- ◆ Determine the meaning of unfamiliar words using context clues.
- ◆ Determine the meaning of unfamiliar words using knowledge of common Greek and Latin roots, suffixes, and prefixes.
- ◆ Determine pronunciations, meanings, alternate word choices, and parts of speech of words using dictionaries and thesauruses.
- ◆ Identify the eight basic parts of speech (noun, pronoun, verb, adverb, adjective, conjunction, preposition, interjection).
- ◆ Expand or reduce sentences (adding or deleting modifiers, combining or recombining sentences).
- ◆ Identify verb tenses.
- ◆ Recognize that a word performs different functions according to its position in the sentence.
- ◆ Identify simple and compound sentences.
- ◆ Identify correct mechanics (apostrophes, quotation marks, comma use in compound sentences, paragraph indentations) and correct sentence structure (elimination of sentence fragments and run-ons).
- ◆ Demonstrate through role-playing appropriate use of formal and informal language.
- ◆ Write stories using a mix of formal and informal language.
- ◆ Identify differences between oral and written language patterns.

READING & LITERATURE

For imaginative/literary texts:

- ◆ Identify and analyze sensory details and figurative language.
- ◆ Identify and analyze the author's use of dialogue and description.

For informational/ expository texts:

- ◆ Recognize organizational structures (chronological order, logical order, cause and effect).
- ◆ Identify and analyze main ideas, supporting ideas, and supporting details.
- ◆ Relate a literary work to information about its setting.
- ◆ Identify and analyze the characteristics of various genres (poetry, fiction, nonfiction, short story, dramatic literature) as forms with distinct characteristics and purposes.
- ◆ Apply knowledge of the concept that theme refers to the main idea and meaning of a selection, whether it is implied or stated.
- ◆ Identify and analyze the elements of setting, characterization, and plot (including conflict).
- ◆ Identify and use knowledge of common textual features (paragraphs, topic sentences, concluding sentences, glossary, index).
- ◆ Identify and use knowledge of common graphic features (charts, maps, diagrams, captions, illustrations).
- ◆ Identify and use knowledge of common organizational structures (chronological order, logical order, cause and effect).
- ◆ Identify and analyze main ideas, supporting ideas, and supporting details.
- ◆ Respond to and analyze the effects of sound, figurative language, and graphics in order to uncover meaning in poetry:
 - a. sound (alliteration, onomatopoeia, rhyme scheme);
 - b. figurative language (personification, metaphor simile, hyperbole); and
 - c. graphics (capital letters, line length).
- ◆ Identify imagery, figurative language, rhythm, or flow when responding to literature.
- ◆ Identify and analyze the importance of author's word choices.
- ◆ Identify and analyze structural elements particular to dramatic literature (scenes, acts, cast of characters, stage directions) in the plays they read, view, write, and perform.
- ◆ Identify and analyze the similarities and differences between a narrative text and its film or play version.
- ◆ Develop characters through the use of basic acting skills (memorization, sensory recall, concentration, diction, body alignment, expressive detail) and self-assess using teacher-developed criteria before performing.

COMPOSITION

For imaginative/literary writing:

- ◆ Write stories or scripts containing the basic elements of fiction (characters, dialogue, setting, plot with a clear resolution).
- ◆ Write poems using poetic techniques (alliteration, onomatopoeia), figurative language (simile, metaphor), and graphic elements (capital letters, line length).

For informational/expository writing:

- ◆ Write brief research reports with clear focus and supporting detail.
- ◆ Write formal letters to correspondents such as authors, newspapers, businesses, or government officials.
- ◆ Make distinctions among fiction, nonfiction, drama, and poetry, and use these genres selectively when writing for different purposes.

- ◆ Revise writing to improve level of detail and precision of language after determining where they can add images and sensory detail, combine sentences, vary sentences, and rearrange text.
- ◆ Improve word choice by using dictionaries or thesauruses.
- ◆ Use additional knowledge of correct mechanics (apostrophes, quotation marks, comma use in compound sentences, paragraph indentations), correct sentence structure (elimination of fragments and run-ons), and correct standard English spelling (commonly used homophones) when writing, revising, and editing.
- ◆ Decide on the placement of descriptive details about setting, characters, and events in stories.
- ◆ Group related ideas together and place them in logical order when writing summaries or reports.
- ◆ Organize information about a topic into a coherent paragraph with a topic sentence, sufficient supporting detail, and a concluding sentence.
- ◆ Apply steps for obtaining information from a variety of sources, organizing information, documenting sources, and presenting research in individual and group projects:
 - a) use an expanded range of print and non-print sources (atlases, databases, electronic, on-line resources);
 - b) locate specific information within resources by using indexes, tables of contents, electronic search key words;
 - c) organize and present research using the grade 5-6 Learning Standards in the Composition Strand as a guide for writing; and
 - d) provide appropriate documentation in a consistent format.
- ◆ Use prescribed criteria from a scoring rubric.

MATH

NUMBER SENSE & OPERATION

- ◆ Demonstrate an understanding of place value to billions and hundreds.
- ◆ Identify and determine common equivalent fractions, mixed numbers, decimals, and percents.
- ◆ Apply number theory concepts to identify factors or multiples of numbers, square, even and odd numbers, prime and composite numbers and prime factorization to the solution of problems.
- ◆ Select and use appropriate operations to solve problems involving addition, subtraction, multiplication (2 digit by 2 digit), division (3 digits by 1).
- ◆ Demonstrate understanding of the inverse relationship of addition and subtraction, and use that understanding to simplify computation and solve problems.
- ◆ Accurately and efficiently add, subtract, multiply, and divide (with single-digit divisors) whole numbers and positive decimals.
- ◆ Use concrete and pictorial models to add and subtract common fractions and mixed numbers.
- ◆ Use the number line to model addition and subtraction of integers, with the exception of subtracting negative integers.
- ◆ Estimate results of computations with whole numbers and describe reasonableness of estimates.

PATTERNS, RELATIONS, AND ALGEBRA

- ◆ Replace variables with given values and evaluate/simplify, e.g., $2(\square) + 3$ when $\square = 4$.
- ◆ Solve problems involving proportional relationships, including unit pricing (e.g., four apples cost 80 cents, so one apple costs 20 cents and map interpretation (e.g., one inch represents five miles, so two inches represent ten miles)).

GEOMETRY

- ◆ Identify polygons based on their properties, including types of interior angles, perpendicular or parallel sides, and congruence of sides, e.g., squares, rectangles, rhombuses, parallelograms, trapezoids, and isosceles, equilateral, and right triangles.
- ◆ Identify geometric solids (e.g., cubes, prisms, spheres, cones and pyramids) based on their properties, such as edges and faces.
- ◆ Predict, identify and describe changes in two-dimensional shapes that have been turned (rotations), slid (translations), and flipped (reflections).

MEASUREMENT

- ◆ Apply and understand the concept of perimeter and area to the solution of problems.
- ◆ Find areas of polygons (rectangles, parallelograms and triangles) and circles. Recognize that shapes with the same number of sides but different appearances can have the same area. Develop strategies to find the area of more complex shapes.

DATA AND ANALYSIS

- ◆ Describe and compare data sets using the concepts of median, mean, mode, maximum and minimum, and range (landmarks).

SOCIAL STUDIES

HISTORY

- ◆ Identify different ways of dating historical narratives (17th century, seventeenth century, 1600s, colonial period).
- ◆ Interpret timelines of events studied.
- ◆ Observe and identify details in cartoons, photographs, charts and graphs relating to a historical narrative.

PRE-COLUMBIAN CIVILIZATIONS OF THE NEW WORLD AND EUROPEAN EXPLORATION, COLONIZATION, AND SETTLEMENT TO 1700

- ◆ Describe the earliest explorations of the New World by the Vikings.
- ◆ Identify the three major pre-Columbian civilizations that existed in Central and South America (Maya, Aztec and Inca) and their locations. Describe their political structures, religious practices, economies, art and architecture and use of slaves.
- ◆ Explain why trade routes to Asia had been closed in the 15th century and trace the voyages of at least four of the explorers listed below. For each explorer, describe what they sought when they began their journeys, what they found and how their discoveries changed mapmaking and the image of the world.

a. the Cabots	e. Amerigo Vespucci	i. Magellan
b. Balboa	f. Champlain	
c. Ponce de Leon	g. Hudson	

- d. Columbus
- h. Cartier
- ◆ Explain why the Aztec and Inca civilizations declined in the 16th century
 - a. the encounters between Cortez and Montezuma
 - b. the encounters between Pizarro and the Incas
 - c. the goals of the Spanish conquistadors
 - d. the effects of European diseases, particularly smallpox
- ◆ Explain the early relationship of the English settlers to the indigenous groups, or Indians, in North America.
- ◆ Identify some of the major leaders and groups responsible for the founding of the original colonies in North America. (H,C)
 - a. John Smith in Virginia
 - b. William Penn in Pennsylvania
 - c. Lord Baltimore in Maryland
 - d. John Winthrop in Massachusetts
 - e. Roger Williams in Rhode Island
- ◆ Explain why the colonies were shaped by the English rather than the other European countries who explored the Americas.

THE POLITICAL, INTELLECTUAL AND ECONOMIC GROWTH OF THE COLONIES, 1700-1775

- ◆ Explain the causes of the establishment of slavery in North America. Describe the harsh conditions of the Middle Passage and slave life and the responses of slaves to their condition.
- ◆ Identify the founders and the reasons for the establishment of educational institutions in the colonies.
- ◆ Explain the development of colonial governments and describe how these developments contribute to the Revolution.
- ◆ Explain the reasons for the French and Indian War, how it led to an overhaul of British imperial policy and the colonial response to these policies.
 - a. the 1764 Sugar Act
 - b. the 1765 Stamp Act
 - c. the 1767 Townsend Duties
 - d. the 1773 Tea Act and the 1774 Intolerable Acts
 - e. the slogan "no taxation without representation"
 - f. the roles of the Stamp Act Congress, the Sons of Liberty and the 1773 Tea Party
- ◆ On a map of North America, identify the first 13 colonies and describe how regional differences in climate, types of farming, populations and sources of labor shaped their economies and societies through the 18th century.
- ◆ Explain the causes of the establishment of slavery in North America. Describe the harsh conditions of the Middle Passage and slave life, and the responses of slaves to their conditions.

THE REVOLUTION AND THE FORMATION OF A FEDERAL GOVERNMENT UNDER THE CONSTITUTION, 1775-1789

- ◆ Explain the meaning of the key ideas contained in the Declaration of Independence.
- ◆ Describe the major battles of the Revolution and explain factors leading to American victory and British defeat.
- ◆ Describe the life and achievements of important leaders during the Revolution and the early years of the United States.
- ◆ Explain the reasons for the adoption of the Articles of Confederation in 1781 and for its later failure.
- ◆ Identify the major issues debated at the Constitutional Convention.

GEOGRAPHY

- ◆ Use maps and globes to identify absolute locations (latitude and longitude).
- ◆ Identify the location of the North and South Poles, the Equator, the Prime Meridian, Northern, Southern, Eastern and Western Hemispheres.
- ◆ Interpret a map using information from its title, compass rose, scale and legend.
- ◆ Distinguish between political and topographical maps and identify specialized maps that show information such as population, income or climate change.
- ◆ Compare maps of the modern world with historical maps of the world before the Age of Exploration and describe changes in 16th and 17th century maps of the world.

ECONOMICS

- ◆ Define what an entrepreneur is and give examples from colonial history of an entrepreneur.
- ◆ Define profit and describe how profit is an incentive for entrepreneurs.

CIVICS AND GOVERNMENT

- ◆ Define and correctly use words related to government e.g., citizen, rights, representation, federal, state).
- ◆ Give examples of the responsibilities and powers associated with major federal and state officials (e.g. the president, governor, state senators and state representatives.)

THE PRINCIPLES AND INSTITUTIONS OF AMERICAN CONSTITUTIONAL GOVERNMENT

- ◆ Describe the responsibilities of government at the federal, state and local levels.
- ◆ Describe the basic political principles of American democracy and explain how the Constitution and Bill of Rights reflect and preserve these principles
 - a. individual rights and responsibilities
 - b. equality
 - c. the rule of law
 - d. limited government
 - e. representative democracy
- ◆ Identify the three branches of the United States government as outlined by the Constitution, describe their functions and relationships.
- ◆ Identify the rights in the Bill of Rights.

- ◆ Explain how American citizens were expected to participate in, monitor and bring about changes in their government over time, and give examples of how they continue to do so today.

THE GROWTH OF REPUBLIC

- ◆ Identify the changes in voting qualification between 1787 and 1820.
- ◆ Explain the events leading up to, and the significance of, the Louisiana Purchase of 1803.
- ◆ Describe the expedition of Lewis and Clark from 1803 to 1806.
- ◆ Describe the causes of the war of 1812 and how events during the war contributed to a sense of American nationalism.
- ◆ Explain the reason why pioneers moved west from the beginning to the middle of the 19th century, and describe their lives on the frontier.

SCIENCE

EARTH & SPACE SCIENCE

- ◆ Give a simple explanation of what a mineral is and some examples, e.g., quartz, mica.
- ◆ Identify the physical properties of minerals (hardness, color, luster, cleavage, and streak), and explain how minerals can be tested for these different physical properties.
- ◆ Identify the three categories of rocks (metamorphic, igneous, and sedimentary) based on how they are formed, and explain the natural and physical processes that create these rocks.
- ◆ Explain and give examples of the ways in which soil is formed (the weathering of rock by water and wind and from the decomposition of plant and animal remains).

LIFE SCIENCE (BIOLOGY)

- ◆ Classify plants and animals according to physical characteristics that they share.
- ◆ Give examples of how inherited characteristics may change over time as adaptations to changes in the environment that enable organisms to survive, e.g., shape of beak or feet, placement of eyes on the head, length of neck, shape of teeth, color.
- ◆ Give examples of how changes in the environment (drought, cold) have caused some plants and animals to die or move to new locations (migration).
- ◆ Describe how organisms meet some of their needs in an environment by using behaviors (pattern of activities) in response to information (stimuli) received from the environment. Recognize that some animal behaviors are instinctive (e.g., turtles burying their eggs), and others are learned (e.g., humans building fires for warmth, chimpanzees learning how to use tools)

LIFE SCIENCE (BIOLOGY) - cont'd

- ◆ Recognize plant behaviors, such as the way seedlings' stems grow toward light and their roots grow downward in response to gravity. Recognize that many plants and animals can survive harsh environments because of seasonal behaviors, e.g., in winter, some trees shed leaves, some animals hibernate, and other animals migrate.
- ◆ Give examples of how organisms can cause changes in their environment to ensure survival. Explain how some of these changes may affect the ecosystem.
- ◆ Describe how energy derived from the sun is used by plants to produce sugars (photosynthesis) and is transferred within a food chain from producers (plants) to consumers to decomposers.

PHYSICAL SCIENCE (CHEMISTRY & PHYSICS)

- ◆ Differentiate between properties of objects (e.g., size, shape, weight) and properties of materials (e.g., color, texture, hardness).
- ◆ Identify the basic forms of energy (light, sound, heat, electrical, and magnetic). Recognize that energy is ability to cause motion or create change.
- ◆ Give examples of how energy can be transferred from one form to another.
- ◆ Recognize that electricity in circuits requires a complete loop through which an electrical current can pass, and that electricity can produce light, heat, and sound.
- ◆ Identify and classify objects and materials that conduct electricity and objects and materials that are insulators of electricity.
- ◆ Explain how electromagnets can be made and give examples of how they can be used.
- ◆ Recognize that magnets have poles that repel and attract each other.
- ◆ Identify and classify objects and materials that a magnet will attract and objects and materials that a magnet will not attract.
- ◆ Recognize that light travels in a straight line until it strikes an object or travels from one medium to another, and that light can be reflected, refracted, and absorbed.

TECHNOLOGY/ENGINEERING

- ◆ Identify and explain the appropriate materials and tools (e.g., hammer, screwdriver, pliers, tape measure, screws, nails, and other mechanical fasteners) to construct a given prototype safely.
- ◆ Identify and explain the difference between simple and complex machines, e.g., hand can-opener that includes multiple gears, wheel, wedge gear, and lever.

ART

MEDIA, MATERIALS AND TECHNIQUES

- ◆ Use a variety of materials and media, for example, crayons, chalk, paint, clay various kinds of papers, textiles and yarns and understand how to use them to produce different visual effects.
- ◆ Create artwork in a variety of two-dimensional (2D) and three-dimensional (3D) media, for example: 2D - drawing, painting, collage, printmaking, weaving; 3D - plastic (malleable) materials such as clay and paper, wood or found objects for assemblage and construction.
- ◆ Learn and use appropriate vocabulary related to methods, materials and techniques.

- ◆ Learn to take care of materials and tools and to use them safely.

ELEMENTS AND PRINCIPLES OF DESIGN

- ◆ For color, explore and experiment with the use of color in dry and wet media. Identify primary and secondary colors and gradations of black, white and gray in the environment and artwork. Explore how color can convey mood and emotion. For example, students mix light and dark values of colors and predict the results of overlapping and blending primary colors.
- ◆ Identify a wide variety of types of lines in the environment and artwork. For example, students take a walk around the school and note jagged, straight, curved, thick and thin lines.
- ◆ Identify a wide variety of types of textures, for example, smooth, rough, bumpy in the environment and in artwork. Create representations of textures in drawings, paintings, rubbings or relief.
- ◆ Identify simple shapes of different sizes, for example, circles, squares, triangles and forms, for example, spheres, cones, and cubes in the environment and in artwork. Distinguish between and manipulate organic versus geometric.
- ◆ Identify patterns and symmetrical forms and shapes in the environment and artwork. Explain and demonstrate ways in which patterns and symmetrical shapes may be made. For example, a student folds and cuts paper to achieve symmetry, or makes printed patterns.
- ◆ Explore composition by creating artwork with a center of interest, repetition and/or balance. Demonstrate understanding of foreground, middle ground and background. Define and identify occurrences of balance, rhythm, repetition, variety and emphasis.

OBSERVATION, ABSTRACTION, INVENTION AND EXPRESSION

- ◆ Create 2D and 3D artwork from direct observation. For example, students draw a still life of flowers or fruit, action studies of their classmates in sports poses, or sketches of the class pet having a snack or nap.
- ◆ Create 2D and 3D expressive artwork that explores abstraction. For example, a student simplifies an image by making decisions about essential colors, lines or textures.
- ◆ Create 2D and 3D artwork from memory or imagination to tell a story or embody an idea or fantasy. For example, students draw members of a family from memory; illustrate a character in a folktale or play; build a clay model of an ideal place to play; or make images that convey ideas such as friendship.

DRAFTING, REVISING AND EXHIBITING

- ◆ Select a work or works created during the year and discuss them with a parent, classmate or teacher, explaining how the work was made and why it was chosen for discussion. For example, a fifth grader chooses a painting and tells how she mixed the colors and talks about deliberate choices she made.
- ◆ Select works for exhibition and work as a group to create a display.
- ◆ As a class, develop and use criteria for informal classroom discussions about art.

CRITICAL RESPONSE

- ◆ In the course of making and viewing art, learn ways of discussing it, such as by making a list of all the images seen in artwork (visual inventory); and identifying kinds of color, line, texture, shaped and forms in the work.
- ◆ Classify artworks into general categories, such as painting, printmaking, collage, sculpture, pottery, textiles, architecture, photography and film.
- ◆ Describe similarities and differences in works, and present personal responses to the subject matter, materials, techniques and use of design elements in artworks.
- ◆ Explain strengths and weaknesses in their own work and share comments constructively and supportively within the group.

MUSIC

PERFORMANCE SKILLS

- ◆ Produce a steady beat; know rhythm of triplets; be able to match pitch, hold part when performing in harmony, singing syllables (solfège).
- ◆ Play parts in increasing complexity; conduct a small group; expand movement repertoire from simple set and folk dances.

MUSICAL CONCEPTS

- ◆ Read and play treble clef staff in parts together; use expressive dynamics as well as proper beat rhythm, beat and pitch.
- ◆ Use music vocabulary to describe the elements of music.
- ◆ Master 2/4, 4/4, 3/4 meter; recognize chords
- ◆ Listen to programmatic music, opera/oratorio and marches; know historical background of Danse Macabre.
- ◆ Study instruments in the context of music and know why composers chose a particular instrument.

CREATING

- ◆ Improvise in large and small group settings.
- ◆ Move appropriately to piece in mood and style
- ◆ Perform student compositions
- ◆ Prepare an exit assessment composition for recorder or xylophone

PHYSICAL EDUCATION

- ◆ Demonstrate knowledge of the rules, history, and skills involved in the participation of group fitness activities.
- ◆ Demonstrate the ability to be an active participant in group fitness activities without regard to skill levels.
- ◆ Demonstrate the ability to choose partners.
- ◆ Demonstrate the ability to share fitness experiences both in and out of school.

- ◆ Demonstrate the ability to throw and strike a variety of objects using both accuracy and force.
- ◆ Demonstrate the ability to dribble both with hands or feet.
- ◆ Demonstrate the ability to apply learned skills in a group fitness activity.
- ◆ Demonstrate different forms of activities that benefit personal fitness.
- ◆ Demonstrate the ability to remain on task without being monitored by the instructor while working on personal fitness skills.
- ◆ Demonstrate the ability to distinguish the difference between courage and unsafe acts.
- ◆ Demonstrate the ability to record the heart rate during and after vigorous physical activity.
- ◆ Demonstrate the ability to participate in activities designed to improve and maintain muscular strength and endurance, flexibility, cardio respiratory functioning, and proper body composition.
- ◆ Demonstrate the ability to develop fitness activities at school and participate in them outside school.
- ◆ Demonstrate the ability to warm-up and cool-down properly.
- ◆ Demonstrate the ability to perform gymnastic and dance sequences that combine traveling, rolling, balancing, and weight transfer into smooth flowing sequences with changes of directions, speed, and flow.

HEALTH

- ◆ Describe the difference between communicable and non communicable diseases.
- ◆ Recognize common illnesses and their symptoms.
- ◆ Understand that the body tries to fight disease naturally with the immune system.
- ◆ Explain one's responsibility with regard to one's health including use of good hygiene practices.
- ◆ Describe safety rules for home, car, bus, school, sports.
- ◆ Recognize need for rules to ensure safe community environment.
- ◆ Describe need for universal precautions in first aid treatment.
- ◆ Define heredity and environment and how they affect health.
- ◆ Describe the 3 circles of health and the interrelationship of each.
- ◆ Recognize the digestive system and label major organs.
- ◆ Demonstrate the path food takes through the digestive system.
- ◆ Understand the difference between positive and negative feelings.
- ◆ Describe the body's physical reaction to stress.
- ◆ Understand the difference between worry and stress.
- ◆ Demonstrate positive self-talk
- ◆ Identify two different relaxation techniques.
- ◆ Explain the benefit of dealing with stress positively.
- ◆ Explain the importance of different nutrients to good health.
- ◆ Understand the concepts of balance, variety and moderation in planning meals.
- ◆ Describe different advertising techniques of food products.
- ◆ Recognize parts of a food label.
- ◆ Explain function of the digestive system.
- ◆ Explain how to read product labels.
- ◆ Describe some influential techniques used by advertisers.
- ◆ Describe some techniques used in cigarette advertisements.
- ◆ Interpret how to use information in deciding whether to purchase product.
- ◆ Distinguish between legal and illegal drugs with appropriate age limits.
- ◆ Explain the dangers of tobacco use.
- ◆ Describe the effect of alcohol on the body.
- ◆ Define inhalant and describe consequences of use.