



Zula Exploration Mission Module Alignment with Florida Next Generation Sunshine State Standards

SM = Simple Machines Exploration Mission Module

MSCR = Mixtures, Solutions, and Chemical Reactions Exploration Mission Module

FR = Force Exploration Mission Module

HB = Habitats Exploration Mission Module

MA = Matter Exploration Mission Module

LT = Light Exploration Mission Module

H₂O = Water Exploration Mission Module

PALC = Plants, Animals, and Life Cycles Mission Module

WE = Weather Exploration Mission Module

RS = Rocks and Soil Exploration Mission Module

All = All current and future Zula activities and lesson plans

FK = Future Mission Exploration Modules

Kindergarten

Science

Earth and Space Science

SC.K.E.5.1 Explore the Law of Gravity by investigating how objects are pulled toward the ground unless something holds them up. (FR, FK)

SC.K.E.5.2 Recognize the repeating pattern of day and night. (LT, FK)

SC.K.E.5.3 Recognize that the Sun can only be seen in the daytime. (LT, FK)

SC.K.E.5.4 Observe that sometimes the Moon can be seen at night and sometimes during the day. (FK)

SC.K.E.5.5 Observe that things can be big and things can be small as seen from Earth. (FK)

SC.K.E.5.6 Observe that some objects are far away and some are nearby as seen from Earth. (FK)

Life Science

- SC.K.L.14.1 Recognize the five senses and related body parts. (FK)
- SC.K.L.14.2 Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life. (All)
- SC.K.L.14.3 Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do. (PALC, HB, FK)

Nature of Science

- SC.K.N.1.1 Collaborate with a partner to collect information (ALL)
- SC.K.N.1.2 Make observations of the natural world and know that they are descriptors collected using the five senses. (ALL)
- SC.K.N.1.3 Keep records as appropriate -- such as pictorial records -- of investigations conducted. (ALL)
- SC.K.N.1.4 Observe and create a visual representation of an object which includes its major features. (ALL)
- SC.K.N.1.5 Recognize that learning can come from careful observation. (ALL)

Physical Science

- SC.K.P.8.1 Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture. (SM, RS, H2O, MSCR, LT, FR, FK)
- SC.K.P.9.1 Recognize that the shape of materials such as paper and clay can be changed by cutting, tearing, crumpling, smashing, or rolling. (SM, FR, FK)
- SC.K.P.10.1 Observe that things that make sound vibrate. (FK)
- SC.K.P.12.1 Investigate that things move in different ways, such as fast, slow, etc. (SM, FR, FK)
- SC.K.P.13.1 Observe that a push or a pull can change the way an object is moving. (SM, FR, FK)

Reading & Language Arts

Reading Process

- LA.K.1.1.1 The student will locate a printed word on a page (ALL)
- LA.K.1.1.4 The student will match print to speech (ALL)
- LA.K.1.1.5 The student will identify parts of a book (e.g., front cover, back cover, title page) (ALL)
- LA.K.1.1.6 The student will move top to bottom and left to right on the printed page (ALL)
- LA.K.1.4.2 The student will decode simple words in isolation and in context (ALL)
- LA.K.1.6.1 The student will use new vocabulary that is introduced and taught directly (ALL)
- LA.K.1.6.2 The student will listen to and discuss both familiar and conceptually challenging text (ALL)
- LA.K.1.6.3 The student will describe common objects and events in both general and specific language (ALL)
- LA.K.1.6.4 The student will identify and sort common words into basic categories (e.g., colors, shapes, food) (ALL)

- LA.K.1.6.5 The student will use language correctly to express spatial and temporal relationships (e.g., up/down, before/after) (ALL)
- LA.K.1.6.6 The student will relate new vocabulary to prior knowledge. (ALL)
- LA.K.1.7.1 The student will make predictions about text content using pictures, background knowledge, and text features (e.g., title, sub-heading, captions, illustrations) (ALL)
- LA.K.1.7.2 The student will use background knowledge, supporting details from text, or another source to determine whether a reading selection is fact or fiction (ALL)
- LA.K.1.7.3 The student will retell the main idea or essential message, identifying supporting details (e.g., who, what, when, where, why, how), and arranging events in sequence (ALL)
- LA.K.1.7.4 The student will identify the authors purpose as stated in the text. (ALL)

Literary Analysis

- LA.K.2.1.2 The student will retell the main events (e.g., beginning, middle, end) of a story, and describe characters and setting (ALL)
- LA.K.2.1.4 The student will select materials to read for pleasure (ALL)
- LA.K.2.1.5 The student will participate in a group response to various literary selections (e.g., nursery rhymes, fairy tales, picture books), identifying the character(s), setting, and sequence of events and connecting text to self (personal connection) and text to world (social connection). (ALL)
- LA.K.2.2.1 The student will identify the purpose of nonfictional text (ALL)
- LA.K.2.2.2 The student will retell important facts from a text heard or read (ALL)
- LA.K.2.2.3 The student will select nonfiction material to read for pleasure (ALL)

Writing Process

- LA.K.3.1.1 The student will prewrite by connecting thoughts and oral language to generate ideas (ALL)
- LA.K.3.1.2 The student will prewrite by drawing a picture about ideas from stories read aloud or generated through class discussion. (ALL)
- LA.K.3.2.1 The student will draft writing by drawing, telling, or writing about a familiar experience, topic or text (ALL)
- LA.K.3.5.1 The student will produce, illustrate and share a finished piece of writing. (ALL)

Writing Applications

- LA.K.4.1.1 The student will create narratives by drawing, dictating, and/or using emergent writing (ALL)
- LA.K.4.2.1 The student will participate in creating a variety of informational/expository forms (e.g., labels, lists, graphs, observations, summaries) through drawing or writing (ALL)
- LA.K.4.2.2 The student will participate in creating simple summaries from informational/expository text (e.g., graphs, tables, maps) (ALL)
- LA.K.4.2.3 The student will participate in a group setting to identify the topic as expressed in informational/expository text, and discuss related details (ALL)
- LA.K.4.3.1 The student will draw a picture and use it to explain why this item (food, pet, person) is their favorite. (ALL)

Communication

- LA.K.5.1.2 The student will write from left to right and top to bottom of page (ALL)
- LA.K.5.1.4 The student will print own first and last name (ALL)
- LA.K.5.2.1 The student will listen carefully and understand directions for performing tasks (e.g., three or four-step oral directions) (ALL)
- LA.K.5.2.2 The student will listen attentively to fiction and nonfiction read-alouds and demonstrate understanding (ALL)
- LA.K.5.2.5 The student will communicate effectively when relating experiences and retelling stories heard (ALL)

Information and Media Literacy

- LA.K.6.1.1 The student will identify the purpose of informational text and distinguish between informational text (e.g., signs, directions) and text read for pleasure (e.g., stories, poems). (ALL)
- LA.K.6.2.1 The student will ask questions and recognize the library media specialist or teacher as an information source (ALL)
- LA.K.6.2.2 The student will use simple reference resources to locate and obtain information through knowledge of alphabetical order, use of pictures, and environmental print (e.g., signs, billboards) (ALL)
- LA.K.6.2.3 The student will participate in creating a simple class report where the teacher is the scribe (ALL)
- LA.K.6.2.4 The student will recognize that authors, illustrators, and composers create informational sources. (ALL)
- LA.K.6.3.1 The student will recognize print and nonprint media (ALL)
- LA.K.6.3.2 The student will state the main idea after viewing print media. (ALL)
- LA.K.6.4.1 The student will use technology (e.g., drawing tools, writing tools) resources to support learning. (ALL)

Mathematics

Algebra

- MA.K.A.4.1 Identify and duplicate simple number and non-numeric repeating and growing patterns. (LT, FR, FK)

Geometry

- MA.K.G.2.1 Describe, sort and re-sort objects using a variety of attributes such as shape, size, and position. (SM, RS, HB, PALC, LT, FR, MSCR, H2O, FK)
- MA.K.G.2.2 Identify, name, describe and sort basic two-dimensional shapes such as squares, triangles, circles, rectangles, hexagons, and trapezoids. (SM, FR, FK)
- MA.K.G.2.3 Identify, name, describe, and sort three-dimensional shapes such as spheres, cubes and cylinders. (SM, FR, FK)
- MA.K.G.2.5 Use basic shapes, spatial reasoning, and manipulatives to model objects in the environment and to construct more complex shapes. (SM, FR, FK)
- MA.K.G.3.1 Compare and order objects indirectly or directly using measurable attributes such as length, height, and weight. (SM, H2O, WE, MA, HB, LT, FR, MSCR, FK)

MA.K.G.5.1 Demonstrate an understanding of the concept of time using identifiers such as morning, afternoon, day, week, month, year, before/after, shorter/longer. (WE, LT, PALC, HB, MA, FK)

First Grade

Science

Earth and Space Science

- SC.1.E.5.1 Observe and discuss that there are more stars in the sky than anyone can easily count and that they are not scattered evenly in the sky. (FK)
- SC.1.E.5.2 Explore the Law of Gravity by demonstrating that Earth's gravity pulls any object on or near Earth toward it even though nothing is touching the object. (FR, FK)
- SC.1.E.5.3 Investigate how magnifiers make things appear bigger and help people see things they could not see without them. (MSCR, HB, PALC, FK)
- SC.1.E.5.4 Identify the beneficial and harmful properties of the Sun. (FK)
- SC.1.E.6.1 Recognize that water, rocks, soil, and living organisms are found on Earth's surface. (H2O, RS, PALC, HB, FK)
- SC.1.E.6.2 Describe the need for water and how to be safe around water. (H2O, FK)
- SC.1.E.6.3 Recognize that some things in the world around us happen fast and some happen slowly. (ALL)

Life Science

- SC.1.L.14.1 Make observations of living things and their environment using the five senses. (PALC, HB, RS, H2O, FK)
- SC.1.L.14.2 Identify the major parts of plants, including stem, roots, leaves, and flowers. (HB, PALC, FK)
- SC.1.L.14.3 Differentiate between living and nonliving things. (PALC, FK)
- SC.1.L.16.1 Make observations that plants and animals closely resemble their parents, but variations exist among individuals within a population. (PALC, HB, FK)
- SC.1.L.17.1 Through observation, recognize that all plants and animals, including humans, need the basic necessities of air, water, food, and space. (PALC, HB, FK)

Nature of Science

- SC.1.N.1.1 Raise questions about the natural world, investigate them in teams through free exploration, and generate appropriate explanations based on those explorations. (ALL)
- SC.1.N.1.2 Using the five senses as tools, make careful observations, describe objects in terms of number, shape, texture, size, weight, color, and motion, and compare their observations with others. (ALL)
- SC.1.N.1.3 Keep records as appropriate - such as pictorial and written records - of investigations conducted. (ALL)
- SC.1.N.1.4 Ask "how do you know?" in appropriate situations. (ALL)

Physical Science

SC.1.P.8.1 Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light), texture, and whether objects sink or float. (H2O, SM, MSCR, FR, HB, RS, FK)

SC.1.P.12.1 Demonstrate and describe the various ways that objects can move, such as in a straight line, zigzag, back-and-forth, round-and-round, fast, and slow. (SM, FR, FK)

SC.1.P.13.1 Demonstrate that the way to change the motion of an object is by applying a push or a pull. (SM, FR, FK)

Reading & Language Arts

Reading Process

LA.1.1.1.1 The student will locate the title, table of contents, names of author and illustrator, glossary, and index (ALL)

LA.1.1.1.2 The student will distinguish informational text (e.g., store sign, stop sign, recipe) from entertaining text (e.g., song, poem). (ALL)

LA.1.1.6.1 The student will use new vocabulary that is introduced and taught directly (ALL)

LA.1.1.6.2 The student will listen to, read, and discuss both familiar and conceptually challenging text (ALL)

LA.1.1.6.3 The student will use context clues (ALL)

LA.1.1.6.4 The student will categorize key vocabulary and identify salient features (ALL)

LA.1.1.6.5 The student will relate new vocabulary to prior knowledge (ALL)

LA.1.1.6.9 The student will determine the correct meaning of words with multiple meanings (e.g., mine) in context (ALL)

LA.1.1.6.10 The student will determine meanings of unfamiliar words by using a beginning dictionary, illustrations, and digital tools. (ALL)

LA.1.1.7.1 The student will identify a text's features (e.g., title, subheadings, captions, illustrations), use them to make predictions, and establish a purpose for reading (ALL)

LA.1.1.7.2 The student will use background knowledge and supporting details from text to verify the accuracy of information presented in read selections (ALL)

LA.1.1.7.3 The student will retell the main idea or essential message (ALL)

LA.1.1.7.4 The student will identify supporting details (ALL)

LA.1.1.7.5 The student will distinguish fact from fiction and cause from effect (ALL)

LA.1.1.7.6 The student will arrange events in sequence (ALL)

LA.1.1.7.7 The student will identify the text structures an author uses (e.g., comparison/contrast, cause/effect, and sequence of events) (ALL)

LA.1.1.7.8 The student will identify the authors purpose in text and ask clarifying questions (e.g., why, how) if meaning is unclear (ALL).

Literary Analysis

LA.1.2.1.1 The student will identify various literary forms (e.g., stories, poems, fables, legends, picture books) (ALL)

LA.1.2.1.2 The student will retell the main events (e.g., beginning, middle, end) in a story (ALL)

- LA.1.2.1.3 The student will identify the characters and settings in a story (ALL)
- LA.1.2.1.5 The student will respond to various literary selections (e.g., nursery rhymes, fairy tales), identifying the character(s), setting, and sequence of events and connecting text to self (personal connection), text to world (social connection), text to text (comparison among multiple texts) (ALL)
- LA.1.2.1.6 The student will select age and ability appropriate fiction materials to read, based on interest and teacher recommendations, to begin building a core base of knowledge. (ALL)
- LA.1.2.2.1 The student will locate specific information by using organizational features (e.g., directions, graphs, charts, signs, captions) in informational text (ALL)
- LA.1.2.2.2 The student will select age and ability appropriate nonfiction materials to read, based on interest and teacher recommendations, to begin building a core base of knowledge (ALL)
- LA.1.2.2.3 The student will organize information found in nonfiction text through charting, listing, mapping, or summarizing. (ALL)

Writing Process

- LA.1.3.1.1 The student will prewrite by generating ideas from multiple sources (e.g., brainstorming, webbing, drawing, group discussion, other activities) (ALL)
- LA.1.3.1.2 The student will prewrite by discussing the purpose for a writing piece (ALL)
- LA.1.3.1.3 The student will prewrite by organizing ideas using simple webs, maps, or lists. (ALL)
- LA.1.3.2.1 The student will draft writing by maintaining focus on a single idea using supporting details (ALL)
- LA.1.3.2.2 The student will draft writing by organizing details into a logical sequence that has a beginning, middle, and end. (ALL)
- LA.1.3.5.1 The student will produce, illustrate, and share a variety of compositions. (ALL)

Writing Applications

- LA.1.4.1.1 The student will write narratives that include a main idea based on real or imagined events, characters, and a sequence of events (ALL)
- LA.1.4.1.2 The student will participate in writing simple stories, poems, rhymes, or song lyrics. (ALL)
- LA.1.4.2.1 The student will write in a variety of informational/expository forms (e.g., rules, summaries, recipes, notes/messages, labels, instructions, graphs/tables) (ALL)
- LA.1.4.2.2 The student will participate in recording information from informational/expository text (e.g., lists, graphs, tables or maps) (ALL)
- LA.1.4.3.1 The student will draw a picture and use simple text to explain why this item (food, pet, person) is important to them. (ALL)

Communication

- LA.1.5.2.1 The student will listen attentively and understand directions for performing tasks (e.g., multi-step oral directions), solving problems, and following rules (ALL)
- LA.1.5.2.2 The student will retell specific details of information heard (ALL)

LA.1.5.2.3 The student will listen attentively to fiction and nonfiction read-alouds and demonstrate understanding (ALL)

LA.1.5.2.5 The student will communicate effectively when relating experiences and retelling stories read and heard (ALL)

LA.1.5.2.6 The student will participate courteously in conversation, such as asking clarifying questions, taking turns, staying on topic, making eye contact, and facing the speaker. (ALL)

Information and Media Literacy

LA.1.6.1.1 The student will locate specific information by using words in organizational features (e.g., table of contents, headings, captions, bold print, key words, indices) in informational text. (ALL)

LA.1.6.2.1 The student will formulate questions and gather information using simple reference materials (e.g., nonfiction books, picture dictionaries, software) (ALL)

LA.1.6.2.2 The student will use simple reference materials to locate and obtain information, using alphabetical order, record information, and compare it to search questions (ALL)

LA.1.6.3.1 The student will recognize that nonprint media affect thoughts and feelings (e.g., graphics, music, digital video) (ALL)

LA.1.6.4.1 The student will use appropriate available technology resources (e.g., writing tools, digital cameras, drawing tools) to present thoughts, ideas, and stories. (ALL)

Mathematics

Algebra

MA.1.A.1.1 Model addition and subtraction situations using the concepts of "part-whole," "adding to," "taking away from," "comparing," and missing addend." (WE, MA, FK)

MA.1.A.4.1 Extend repeating and growing patterns, fill in missing terms, and justify reasoning. (LT, FR, FK)

Geometry

MA.1.G.3.1 Use appropriate vocabulary to compare shapes according to attributes and properties such as number and lengths of sides and number of vertices. (SM, FR, FK)

MA.1.G.3.2 Compose and decompose plane and solid figures, including making predictions about them, to build an understanding of part-whole relationships and properties of shapes. (SM, FR, FK)

MA.1.G.5.1 Measure by using iterations of a unit, and count the unit measures by grouping units. (SM, H2O, LT, FR, HB, MSCR, RS, FK)

MA.1.G.5.2 Compare and order objects according to descriptors of length, weight, and capacity. (SM, H2O, LT, FR, HB, MSCR, RS, FK)

Second Grade

Science

Earth and Space Science

- SC.2.E.6.1 Recognize that Earth is made up of rocks. Rocks come in many sizes and shapes. (RS, FK)
- SC.2.E.6.2 Describe how small pieces of rock and dead plant and animal parts can be the basis of soil and explain the process by which soil is formed. (RS, FK)
- SC.2.E.6.3 Classify soil types based on color, texture (size of particles), the ability to retain water, and the ability to support the growth of plants. (RS, FK)
- SC.2.E.7.1 Compare and describe changing patterns in nature that repeat themselves, such as weather conditions including temperature and precipitation, day to day and season to season. (WE, FK)
- SC.2.E.7.2 Investigate by observing and measuring, that the Sun's energy directly and indirectly warms the water, land, and air. (LT, WE, MA, FK)
- SC.2.E.7.3 Investigate, observe and describe how water left in an open container disappears (evaporates), but water in a closed container does not disappear (evaporate). (MSCR, FK)
- SC.2.E.7.4 Investigate that air is all around us and that moving air is wind. (WE, FK)
- SC.2.E.7.5 State the importance of preparing for severe weather, lightning, and other weather related events. (WE, FK)

Life Science

- SC.2.L.14.1 Distinguish human body parts (brain, heart, lungs, stomach, muscles, and skeleton) and their basic functions. (FK)
- SC.2.L.16.1 Observe and describe major stages in the life cycles of plants and animals, including beans and butterflies. (PALC, FK)
- SC.2.L.17.1 Compare and contrast the basic needs that all living things, including humans, have for survival. (PALC, HB, FK)
- SC.2.L.17.2 Recognize and explain that living things are found all over Earth, but each is only able to live in habitats that meet its basic needs. (PALC, HB, FK)

Nature of Science

- SC.2.N.1.1 Raise questions about the natural world, investigate them in teams through free exploration and systematic observations, and generate appropriate explanations based on those explorations. (ALL)
- SC.2.N.1.2 Compare the observations made by different groups using the same tools. (ALL)
- SC.2.N.1.3 Ask "how do you know?" in appropriate situations and attempt reasonable answers when asked the same question by others. (ALL)
- SC.2.N.1.4 Explain how particular scientific investigations should yield similar conclusions when repeated. (ALL)
- SC.2.N.1.5 Distinguish between empirical observation (what you see, hear, feel, smell, or taste) and ideas or inferences (what you think). (ALL)
- SC.2.N.1.6 Explain how scientists alone or in groups are always investigating new ways to solve problems. (ALL)

Physical Science

- SC.2.P.8.1 Observe and measure objects in terms of their properties, including size, shape, color, temperature, weight, texture, sinking or floating in water, and attraction and repulsion of magnets. (H2O, SM, MSCR, FR, HB, RS, FK)
- SC.2.P.8.2 Identify objects and materials as solid, liquid, or gas. (MA, MSCR, H2O, FK)
- SC.2.P.8.3 Recognize that solids have a definite shape and that liquids and gases take the shape of their container. (MA, MSCR, H2O, FK)
- SC.2.P.8.4 Observe and describe water in its solid, liquid, and gaseous states. (MA, H2O, FK)
- SC.2.P.8.5 Measure and compare temperatures taken every day at the same time. (WE, FK)
- SC.2.P.8.6 Measure and compare the volume of liquids using containers of various shapes and sizes. (H2O, MSCR, RS, FK)
- SC.2.P.9.1 Investigate that materials can be altered to change some of their properties, but not all materials respond the same way to any one alteration. (FK)
- SC.2.P.13.1 Investigate the effect of applying various pushes and pulls on different objects. (SM, FR, FK)
- SC.2.P.13.2 Demonstrate that magnets can be used to make some things move without touching them. (MSCR, FK)
- SC.2.P.13.3 Recognize that objects are pulled toward the ground unless something holds them up. (FR, FK)
- SC.2.P.13.4 Demonstrate that the greater the force (push or pull) applied to an object, the greater the change in motion of the object. (FR, SM, FK)

Reading and Language Arts

Reading Process.

- LA.2.1.6.1 The student will use new vocabulary that is introduced and taught directly (ALL)
- LA.2.1.6.2 The student will listen to, read, and discuss familiar and conceptually challenging text (ALL)
- LA.2.1.6.3 The student will use context clues to determine meanings of unfamiliar words (ALL)
- LA.2.1.6.4 The student will categorize key vocabulary and identify salient features (ALL)
- LA.2.1.6.5 The student will relate new vocabulary to familiar words (ALL)
- LA.2.1.6.8 The student will determine the correct meaning of words with multiple meanings (e.g., mine) in context (ALL)
- LA.2.1.6.9 The student will determine meanings of unfamiliar words by using a dictionary and digital tools. (ALL)
- LA.2.1.7.1 The student will identify a text's features (e.g., title, subheadings, captions, illustrations), use them to make and confirm predictions, and establish a purpose for reading (ALL)
- LA.2.1.7.2 The student will determine the author's purpose in text and ask clarifying questions (e.g., why, how) if meaning is unclear (ALL)
- LA.2.1.7.3 The student will summarize information in text, including but not limited to main idea, supporting details, and connections between texts (ALL)
- LA.2.1.7.4 The student will identify cause-and-effect relationships in text (ALL)

- LA.2.1.7.5 The student will identify the text structure an author uses (e.g., comparison/contrast, cause/effect, and sequence of events) and explain how it impacts meaning in text (ALL)
- LA.2.1.7.6 The student will identify themes or topics across a variety of fiction and nonfiction selections (ALL)
- LA.2.1.7.7 The student will compare and contrast characters and settings in one text (ALL)

Literary Analysis

- LA.2.2.1.1 The student will identify the basic characteristics of a variety of literary forms (e.g., fables, stories, fiction, poetry, folktales, legends) and how they are alike and different (ALL)
- LA.2.2.1.2 The student will identify and describe the elements of story structure, including setting, plot, character, problem, and resolution in a variety of fiction (ALL)
- LA.2.2.1.3 The student will identify ways an author makes language choices in poetry that appeal to the senses, create imagery, and suggest mood (ALL)
- LA.2.2.1.4 The student will identify an author's theme, and use details from the text to explain how the author developed that theme (ALL)
- LA.2.2.1.5 The student will respond to various literary selections (e.g., biographies, poetry, fables, folk tales, legends), connecting text to self (personal connection), text to world (social connection), text to text (comparison among multiple texts) (ALL)
- LA.2.2.1.7 The student will identify and explain an author's use of descriptive and figurative language (e.g., personification, similes, metaphors, symbolism), and examine how it is used to describe people, feelings, and objects (ALL)
- LA.2.2.1.8 The student will select a balance of age and ability appropriate fiction materials to read (e.g., chapter books, fairy tales, mythology, poetry), based on interest and teacher recommendations, to continue building a core foundation of knowledge. (ALL)
- LA.2.2.2.1 The student will recognize and understand the purpose of text features (e.g., simple table of contents, glossary, charts, graphs, diagrams, illustrations) (ALL)
- LA.2.2.2.2 The student will use explicitly stated information to answer a question (ALL)
- LA.2.2.2.3 The student will distinguish among a variety of text (e.g., reference, practical/functional) (ALL)
- LA.2.2.2.4 The student will select a balance of age and ability appropriate nonfiction materials to read (e.g., biographies and topical areas, such as animals, science, history), based on interest and teacher recommendations, to continue building a core foundation of knowledge. (ALL)

Writing Process

- LA.2.3.1.1 The student will prewrite by generating ideas from multiple sources (e.g., text, brainstorming, webbing, drawing, writer's notebook, group discussion, other activities) (ALL)
- LA.2.3.1.2 The student will prewrite by determining the purpose (e.g., to entertain, to inform, to communicate) and the intended audience of a writing piece (ALL)

LA.2.3.1.3 The student will prewrite by making a plan for writing that includes the main idea, the purpose (e.g., to entertain, to inform, to communicate). (ALL)

LA.2.3.5.1 The student will produce, illustrate, and share a variety of compositions. (ALL)

Writing Applications

LA.2.4.1.1 The student will write narratives based on real or imagined events that include a main idea, characters, a sequence of events and descriptive details (ALL)

LA.2.4.1.2 The student will compose simple stories, poems, riddles, rhymes, or song lyrics.

LA.2.4.2.1 The student will write in a variety of informational/expository forms (e.g., rules, summaries, procedures, recipes, notes/messages, labels, instructions, graphs/tables) (ALL)

LA.2.4.2.2 The student will record information (e.g., observations, notes, lists, charts, map labels, legends) related to a topic (ALL)

LA.2.4.2.3 The student will write informational/expository paragraphs that contain a topic sentence, supporting details, and relevant information (ALL)

LA.2.4.3.1 The student will draw a picture and use simple text to explain why this item (food, pet, person) is important to them. (ALL)

Communication

LA.2.5.2.1 The student will interpret information presented and seek clarification when needed (ALL)

LA.2.5.2.3 The student will use increasingly complex language patterns and sentence structure when communicating (ALL)

LA.2.5.2.4 The student will listen politely to oral presentations by classmates. (ALL)

Information and Media Literacy

LA.2.6.1.1 The student will read informational text (e.g., directions, graphs, charts, signs, captions) to follow multi-step instructions, answer literal questions, perform tasks, learn tasks, and sequentially carry out the steps of a procedure. (ALL)

LA.2.6.2.1 The student will generate research questions by brainstorming, identify key words, group related ideas, and select appropriate resources (e.g., atlases, nonfiction books, dictionaries, digital references) (ALL)

LA.2.6.2.2 The student will select and use a variety of appropriate reference materials to gather information and locate information using alphabetical order (ALL)

LA.2.6.2.3 The student will analyze and select appropriate facts and communicate information in a simple report that includes, a title, a main, and supporting details (ALL)

LA.2.6.3.1 The student will recognize that nonprint media affect thoughts and feelings (e.g., graphics, music, digital video) (ALL)

LA.2.6.4.1 The student will use appropriate available technologies to enhance communication and achieve a purpose (e.g., video, presentations) (ALL)

LA.2.6.4.2 The student will use digital resources (e.g., writing tools, digital cameras, drawing tools) to present and publish thoughts, ideas, and stories. (ALL)

Mathematics

Geometry

- MA.2.G.3.1 Estimate and use standard units, including inches and centimeters, to partition and measure lengths of objects. (SM, LT, FR, HB, RS, FK)
- MA.2.G.3.4 Estimate, select an appropriate tool, measure, and/or compute lengths to solve problems. (SM, LT, FR, HB, RS, FK)
- MA.2.G.5.1 Use geometric models to demonstrate the relationships between wholes and their parts as a foundation to fractions. (SM, FK)
- MA.2.G.5.4 Measure weight/mass and capacity/volume of objects. Include the use of the appropriate unit of measure and their abbreviations including cups, pints, quarts, gallons, ounces (oz), pounds (lbs), grams (g), kilograms (kg), milliliters (mL) and liters (L). (SM, H2O, MSCR, RS, FK)

Third Grade

Science

Earth and Space Science

- SC.3.E.5.1 Explain that stars can be different; some are smaller, some are larger, and some appear brighter than others; all except the Sun are so far away that they look like points of light. (FK)
- SC.3.E.5.2 Identify the Sun as a star that emits energy; some of it in the form of light. (LT, FK)
- SC.3.E.5.3 Recognize that the Sun appears large and bright because it is the closest star to Earth. (FK)
- SC.3.E.5.4 Explore the Law of Gravity by demonstrating that gravity is a force that can be overcome (FR, FK)
- SC.3.E.5.5 Investigate that the number of stars that can be seen through telescopes is dramatically greater than those seen by the unaided eye. (FK)
- SC.3.E.6.1 Demonstrate that radiant energy from the Sun can heat objects and when the Sun is not present, heat may be lost. (LT, WE, MA, FK)

Life Science

- SC.3.L.14.1 Describe structures in plants and their roles in food production, support, water and nutrient transport, and reproduction. (PALC, FK)
- SC.3.L.14.2 Investigate and describe how plants respond to stimuli (heat, light, gravity), such as the way plant stems grow toward light and their roots grow downward in response to gravity. (PALC, FK)
- SC.3.L.15.1 Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors. (PALC, FK)
- SC.3.L.15.2 Classify flowering and nonflowering plants into major groups such as those that produce seeds, or those like ferns and mosses that produce spores, according to their physical characteristics. (FK)
- SC.3.L.17.1 Describe how animals and plants respond to changing seasons. (PALC, HB, FK)

SC.3.L.17.2 Recognize that plants use energy from the Sun, air, and water to make their own food. (PALC, FK)

Nature of Science

SC.3.N.1.1 Raise questions about the natural world, investigate them individually and in teams through free exploration and systematic investigations, and generate appropriate explanations based on those explorations. (ALL)

SC.3.N.1.2 Compare the observations made by different groups using the same tools and seek reasons to explain the differences across groups. (ALL)

SC.3.N.1.3 Keep records as appropriate, such as pictorial, written, or simple charts and graphs, of investigations conducted. (ALL)

SC.3.N.1.4 Recognize the importance of communication among scientists. (ALL)

SC.3.N.1.5 Recognize that scientists question, discuss, and check each others' evidence and explanations. (ALL)

SC.3.N.1.6 Infer based on observation. (ALL)

SC.3.N.1.7 Explain that empirical evidence is information, such as observations or measurements, that is used to help validate explanations of natural phenomena. (ALL)

SC.3.N.3.1 Recognize that words in science can have different or more specific meanings than their use in everyday language; for example, energy, cell, heat/cold, and evidence. (ALL)

SC.3.N.3.2 Recognize that scientists use models to help understand and explain how things work. (ALL)

SC.3.N.3.3 Recognize that all models are approximations of natural phenomena; as such, they do not perfectly account for all observations. (ALL)

Physical Science

SC.3.P.8.1 Measure and compare temperatures of various samples of solids and liquids. (H2O, WE, MA, FK)

SC.3.P.8.2 Measure and compare the mass and volume of solids and liquids. (SM, H2O, MSCR, RS, FK)

SC.3.P.8.3 Compare materials and objects according to properties such as size, shape, color, texture, and hardness. (SM, LT, FR, HB, RS H2O, MSCR, FK)

SC.3.P.9.1 Describe the changes water undergoes when it changes state through heating and cooling by using familiar scientific terms such as melting, freezing, boiling, evaporation, and condensation. (MA, H2O, MSCR, FK)

SC.3.P.10.1 Identify some basic forms of energy such as light, heat, sound, electrical, and mechanical. (LT, MA, FK)

SC.3.P.10.2 Recognize that energy has the ability to cause motion or create change. (FR, FK)

SC.3.P.10.3 Demonstrate that light travels in a straight line until it strikes an object or travels from one medium to another. (LT, FK)

SC.3.P.10.4 Demonstrate that light can be reflected, refracted, and absorbed. (LT, FK)

SC.3.P.11.1 Investigate, observe, and explain that things that give off light often also give off heat. (LT, FK)

SC.3.P.11.2 Investigate, observe, and explain that heat is produced when one object rubs against another, such as rubbing one's hands together. (FR, FK)

Reading & Language Arts

Reading Process

- LA.3.1.6.1 The student will use new vocabulary that is introduced and taught directly (ALL)
- LA.3.1.6.2 The student will listen to, read, and discuss familiar and conceptually challenging text (ALL)
- LA.3.1.6.3 The student will use context clues to determine meanings of unfamiliar words (ALL)
- LA.3.1.6.4 The student will categorize key vocabulary and identify salient features (ALL)
- LA.3.1.6.5 The student will relate new vocabulary to familiar words (ALL)
- LA.3.1.6.9 The student will determine the correct meaning of words with multiple meanings in context (ALL)
- LA.3.1.6.10 The student will determine meanings of unfamiliar words by using a dictionary, thesaurus, and digital tools. (ALL)
- LA.3.1.7.1 The student will identify a text's features (e.g., title, subheadings, captions, illustrations), use them to make and confirm predictions, and establish a purpose for reading; (ALL)
- LA.3.1.7.2 The student will identify the author's purpose (e.g., to inform, entertain, or explain) in text and how an author's perspective influences text (ALL)
- LA.3.1.7.3 The student will determine explicit ideas and information in grade-level text, including but not limited to main idea, relevant supporting details, strongly implied message and inference, and chronological order of events. (ALL)
- LA.3.1.7.4 The student will identify cause-and-effect relationships in text (ALL)
- LA.3.1.7.5 The student will identify the text structure an author uses (e.g., comparison/contrast, cause/effect, and sequence of events) and explain how it impacts meaning in text (ALL)
- LA.3.1.7.6 The student will identify themes or topics across a variety of fiction and nonfiction selections (ALL)
- LA.3.1.7.7 The student will compare and contrast elements, settings, characters, and problems in two texts (ALL)

Literary Analysis

- LA.3.2.1.1 The student will understand the distinguishing features among the common forms of literature (e.g., poetry, prose, fiction, drama) (ALL)
- LA.3.2.1.2 The student will identify and explain the elements of story structure, including character/character development, setting, plot, and problem/resolution in a variety of fiction (ALL)
- LA.3.2.1.4 The student will identify an author's theme, and use details from the text to explain how the author developed that theme (ALL)
- LA.3.2.1.5 The student will respond to, discuss, and reflect on various literary selections (e.g., poetry, prose, fiction, nonfiction), connecting text to self (personal connection), text to world (social connection), text to text (comparison among multiple texts) (ALL)
- LA.3.2.1.7 The student will identify and explain an author's use of descriptive, idiomatic, and figurative language (e.g., personification, similes, metaphors,

symbolism), and examine how it is used to describe people, feelings, and objects (ALL)

LA.3.2.1.8 The student will select a balance of age and ability appropriate fiction materials to read (e.g., chapter books, fairy tales, mythology, poetry), based on interest and teacher recommendations, to continue building a core foundation of knowledge. (ALL)

LA.3.2.2.1 The student will identify and explain the purpose of text features (e.g., table of contents, glossary, headings, charts, graphs, diagrams, illustrations)

LA.3.2.2.2 The student will use information from the text to answer questions related to explicitly stated main ideas or relevant details (ALL)

LA.3.2.2.3 The student will organize information to show an understanding of main ideas within a text through charting, mapping, or summarizing (ALL)

LA.3.2.2.4 The student will identify the characteristics of a variety of types of text (e.g., reference, children's newspapers, practical/functional texts) (ALL)

LA.3.2.2.5 The student will select a balance of age and ability appropriate nonfiction materials to read (e.g., biographies and topical areas, such as animals, science, history), based on interest and teacher recommendations, to continue building a core foundation of knowledge. (ALL)

Writing Process

LA.3.3.1.1 The student will prewrite by generating ideas from multiple sources (e.g., text, brainstorming, graphic organizer, drawing, writer's notebook, group discussion, printed material) (ALL)

LA.3.3.1.2 The student will prewrite by determining the purpose (e.g., to entertain, to inform, to communicate, to persuade) and the intended audience of a writing piece (ALL)

LA.3.3.1.3 The student will prewrite by using organizational strategies (e.g., graphic organizer, KWL chart, log) to make a plan for writing that includes a main idea. (ALL)

LA.3.3.5.2 The student will add graphics where appropriate (ALL)

LA.3.3.5.3 The student will share the writing with the intended audience. (ALL)

Writing Applications

LA.3.4.2.1 The student will write in a variety of informational/expository forms (e.g., rules, summaries, procedures, recipes, notes/messages, labels, instructions, graphs/tables, experiments, rubrics) (ALL)

LA.3.4.2.2 The student will record information (e.g., observations, notes, lists, charts, map labels, legends) related to a topic, including visual aids as appropriate (ALL)

Communication

LA.3.5.2.1 The student will recall, interpret, and summarize information presented orally (ALL)

LA.3.5.2.2 The student will plan, organize, and give an oral presentation and use appropriate voice, eye, and body movements for the topic, audience, and occasion. (ALL)

Information and Media Literacy

LA.3.6.1.1 The student will read informational text (e.g., graphs, charts, manuals) and organize information for different purposes, including but not limited to being informed, following multi-step directions, making a report, conducting interviews, preparing to take a test, and performing a task. (ALL)

LA.3.6.2.1 The student will determine information needed for a search by narrowing or broadening a topic, identify key words (ALL)

LA.3.6.2.2 The student will use predetermined evaluative criteria (e.g., readability, appropriateness, special features) to select appropriate reference materials, including multiple representations of information, such as maps, charts, and photos, to gather information (ALL)

LA.3.6.2.3 The student will communicate information in an informational report that includes main ideas and relevant details with visual support (e.g., text supported by poster, diagram, idea map) (ALL)

LA.3.6.3.1 The student will determine main content and supporting details, including distinguishing fact from opinion, in a print media message (ALL)

LA.3.6.4.1 The student will use appropriate available technologies to enhance communication and achieve a purpose (e.g., video, websites) (ALL)

LA.3.6.4.2 The student will use digital tools (e.g., word processing, multimedia authoring, web tools, graphic organizers) to present and publish in a variety of media formats. (ALL)

Mathematics

Algebra

MA.3.A.2.4 Use models to represent equivalent fractions, including fractions greater than 1, and identify representations of equivalence. (SM, FK)

MA.3.A.4.1 Create, analyze, and represent patterns and relationships using words, variables, tables, and graphs. (FR, MA, FK)

Geometry

MA.3.G.5.2 Measure objects using fractional parts of linear units such as $\frac{1}{2}$, $\frac{1}{4}$, and $\frac{1}{10}$. (SM, FK)

Data Analysis

MA.3.S.7.1 Construct and analyze frequency tables, bar graphs, pictographs, and line plots from data, including data collected through observations, surveys, and experiments. (SM, LT, WE, MA, PALC, HB, RS, FK)