Grade 3 Standards: Texas Essential Knowledge and Skills (TEKS): Mathematical processes

1 The student uses mathematical processes to acquire and demonstrate mathematical understanding.

- A apply mathematics to problems arising in everyday life, society, and the workplace;
- B use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution;
- C select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems;
- D communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate;
- E create and use representations to organize, record, and communicate mathematical ideas;
- F analyze mathematical relationships to connect and communicate mathematical ideas; and
- G display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.

2-4 Number and operations

- **2 The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value.**
  - A compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate;
  - B describe the mathematical relationships found in the base-10 place value system through the hundred thousands place;
  - C represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers; and
  - D compare and order whole numbers up to 100,000 and represent comparisons using the symbols >, <, or =.
- **3 The student applies mathematical process standards to represent and explain fractional units.**

- A represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines;
- B determine the corresponding fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line;
- C explain that the unit fraction 1/b represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero whole number;
- D compose and decompose a fraction a/b with a numerator greater than zero and less than or equal to b as a sum of parts 1/b;
- E solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8;
- F represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines;
- G explain that two fractions are equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model; and
- H compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models.

- **4 The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy.**
  - A solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction;
  - B round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems;
  - C determine the value of a collection of coins and bills;
  - D determine the total number of objects when equally-sized groups of objects are combined or arranged in arrays up to 10 by 10;
  - E represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting;
  - F recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts;

- G use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties;
- H determine the number of objects in each group when a set of objects is partitioned into equal shares or a set of objects is shared equally;
- I determine if a number is even or odd using divisibility rules;
- J determine a quotient using the relationship between multiplication and division; and
- K solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts**.**

5 Algebraic reasoning

- **5 The student applies mathematical process standards to analyze and create patterns and relationships.**
  - A represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations;
  - B represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations;
  - C describe a multiplication expression as a comparison such as 3 x 24 represents 3 times as much as 24;
  - D determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is either a missing factor or product; and
  - E represent real-world relationships using number pairs in a table and verbal descriptions.

6-7 Geometry and measurement

- **6 The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties.**
  - A classify and sort two- and three-dimensional solids, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language;
  - B use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories;
  - C determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row;

- D decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area; and
- E decompose two congruent two-dimensional figures into parts with equal areas and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape.

- **7 The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement.**
  - A represent fractions of halves, fourths, and eighths as distances from zero on a number line;
  - B determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems;
  - C determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes;
  - D determine when it is appropriate to use measurements of liquid volume (capacity) or weight; and
  - E determine liquid volume (capacity) or weight using appropriate units and tools.

8 Data analysis

- **8 The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data.**
  - A summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals; and
  - B solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals.

9 Personal financial literacy

- **9 The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security.**
  - A explain the connection between human capital/labor and income;
  - B describe the relationship between the availability or scarcity of resources and how that impacts cost;
  - C identify the costs and benefits of planned and unplanned spending decisions;
  - D explain that credit is used when wants or needs exceed the ability to pay and that it is the borrower's responsibility to pay it back to the lender, usually with interest;
  - E list reasons to save and explain the benefit of a savings plan, including for college; and

- F identify decisions involving income, spending, saving, credit, and charitable giving.

English Language Arts 3rd Grade Standards: Texas Essential Knowledge and Skills (TEKS)

1-5 Developing and sustaining foundational language skills

- 1 Listening, speaking, discussion, and thinking--oral language. The student develops oral language through listening, speaking, and discussion.
    - A listen actively, ask relevant questions to clarify information, and make pertinent comments;
    - B follow, restate, and give oral instructions that involve a series of related sequences of action;
    - C speak coherently about the topic under discussion, employing eye contact, speaking rate, volume, enunciation, and the conventions of language to communicate ideas effectively;
    - D work collaboratively with others by following agreed-upon rules, norms, and protocols; and
    - E develop social communication such as conversing politely in all situations.
- **2 Listening, speaking, reading, writing, and thinking--beginning reading and writing. The student develops word structure knowledge through phonological awareness, print concepts, phonics, and morphology to communicate, decode, and spell.**
    - A demonstrate and apply phonetic knowledge by:
    - B demonstrate and apply spelling knowledge by:
    - C alphabetize a series of words to the third letter; and
    - D write complete words, thoughts, and answers legibly in cursive leaving appropriate spaces between words.
- **3 Listening, speaking, reading, writing, and thinking--vocabulary. The student uses newly acquired vocabulary expressively.**
    - A use print or digital resources to determine meaning, syllabication, and pronunciation;
    - B use context within and beyond a sentence to determine the meaning of unfamiliar words and multiple-meaning words;
    - C identify the meaning of and use words with affixes such as im- (into), non-, dis-, in- (not, non), pre-, -ness, -y, and -ful; and
    - D identify, use, and explain the meaning of antonyms, synonyms, idioms, homophones, and homographs in a text.

- **4 Listening, speaking, reading, writing, and thinking--fluency. The student reads grade-level text with fluency and comprehension. The student is expected to use appropriate fluency (rate, accuracy, and prosody) when reading grade-level text.**
- **5 Listening, speaking, reading, writing, and thinking--self-sustained reading. The student reads grade-appropriate texts independently. The student is expected to self-select text and read independently for a sustained period of time.**

6 Comprehension skills

- **6 Listening, speaking, reading, writing, and thinking using multiple texts. The student uses metacognitive skills to both develop and deepen comprehension of increasingly complex texts.**
    - A establish purpose for reading assigned and self-selected texts;
    - B generate questions about text before, during, and after reading to deepen understanding and gain information;
    - C make, correct, or confirm predictions using text features, characteristics of genre, and structures;
    - D create mental images to deepen understanding;
    - E make connections to personal experiences, ideas in other texts, and society;
    - F make inferences and use evidence to support understanding;
    - G evaluate details read to determine key ideas;
    - H synthesize information to create new understanding; and
    - I monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down.

7 Response skills

- **7 Listening, speaking, reading, writing, and thinking using multiple texts. The student responds to an increasingly challenging variety of sources that are read, heard, or viewed.**
    - A describe personal connections to a variety of sources, including self-selected texts;
    - B write a response to a literary or informational text that demonstrates an understanding of a text;
    - C use text evidence to support an appropriate response;
    - D retell and paraphrase texts in ways that maintain meaning and logical order;
    - E interact with sources in meaningful ways such as notetaking, annotating, freewriting, or illustrating;
    - F respond using newly acquired vocabulary as appropriate; and
    - G discuss specific ideas in the text that are important to the meaning.

8-9 Multiple genres

- **8 Listening, speaking, reading, writing, and thinking using multiple texts--literary elements. The student recognizes and analyzes literary elements within and across increasingly complex traditional, contemporary, classical, and diverse literary texts.**
    - A infer the theme of a work, distinguishing theme from topic;
    - B explain the relationships among the major and minor characters;
    - C analyze plot elements, including the sequence of events, the conflict, and the resolution; and
    - D explain the influence of the setting on the plot.
- **9 Listening, speaking, reading, writing, and thinking using multiple texts--genres. The student recognizes and analyzes genre-specific characteristics, structures, and purposes within and across increasingly complex traditional, contemporary, classical, and diverse texts.**
    - A demonstrate knowledge of distinguishing characteristics of well-known children's literature such as folktales, fables, fairy tales, legends, and myths;
    - B explain rhyme scheme, sound devices, and structural elements such as stanzas in a variety of poems;
    - C discuss elements of drama such as characters, dialogue, setting, and acts;
    - D recognize characteristics and structures of informational text, including:
        - i the central idea with supporting evidence;
        - ii features such as sections, tables, graphs, timelines, bullets, numbers, and bold and italicized font to support understanding; and
        - iii organizational patterns such as cause and effect and problem and solution;
    - E recognize characteristics and structures of argumentative text by:
        - i identifying the claim;
        - ii distinguishing facts from opinion; and
        - iii identifying the intended audience or reader; and
    - F recognize characteristics of multimodal and digital texts.

10 Author's purpose and craft

- **10 Listening, speaking, reading, writing, and thinking using multiple texts. The student uses critical inquiry to analyze the authors' choices and how they influence and communicate meaning within a variety of texts. The student analyzes and applies author's craft purposefully in order to develop his or her own products and performances.**
    - A explain the author's purpose and message within a text;

- B explain how the use of text structure contributes to the author's purpose;
- C explain the author's use of print and graphic features to achieve specific purposes;
- D describe how the author's use of imagery, literal and figurative language such as simile, and sound devices such as onomatopoeia achieves specific purposes;
- E identify the use of literary devices, including first- or third-person point of view;
- F discuss how the author's use of language contributes to voice; and
- G identify and explain the use of hyperbole.

11-12 Composition

- **11 Listening, speaking, reading, writing, and thinking using multiple texts--writing process. The student uses the writing process recursively to compose multiple texts that are legible and uses appropriate conventions.**
  - A plan a first draft by selecting a genre for a particular topic, purpose, and audience using a range of strategies such as brainstorming, freewriting, and mapping;
  - B develop drafts into a focused, structured, and coherent piece of writing by:
    - i organizing with purposeful structure, including an introduction and a conclusion; and
    - ii developing an engaging idea with relevant details;
  - C revise drafts to improve sentence structure and word choice by adding, deleting, combining, and rearranging ideas for coherence and clarity;
  - D edit drafts using standard English conventions, including:
    - i complete simple and compound sentences with subject-verb agreement;
    - ii past, present, and future verb tense;
    - iii singular, plural, common, and proper nouns;
    - iv adjectives, including their comparative and superlative forms;
    - v adverbs that convey time and adverbs that convey manner;
    - vi prepositions and prepositional phrases;
    - vii pronouns, including subjective, objective, and possessive cases;
    - viii coordinating conjunctions to form compound subjects, predicates, and sentences;
    - ix capitalization of official titles of people, holidays, and geographical names and places;

        - x punctuation marks, including apostrophes in contractions and possessives and commas in compound sentences and items in a series; and
        - xi correct spelling of words with grade-appropriate orthographic patterns and rules and high-frequency words; and
    - E publish written work for appropriate audiences.

- **12 Listening, speaking, reading, writing, and thinking using multiple texts--genres. The student uses genre characteristics and craft to compose multiple texts that are meaningful.**
    - A compose literary texts, including personal narratives and poetry, using genre characteristics and craft;
    - B compose informational texts, including brief compositions that convey information about a topic, using a clear central idea and genre characteristics and craft;
    - C compose argumentative texts, including opinion essays, using genre characteristics and craft; and
    - D compose correspondence such as thank you notes or letters.

13 Inquiry and research

- **13 Listening, speaking, reading, writing, and thinking using multiple texts. The student engages in both short-term and sustained recursive inquiry processes for a variety of purposes.**
    - A generate questions on a topic for formal and informal inquiry;
    - B develop and follow a research plan with adult assistance;
    - C identify and gather relevant information from a variety of sources;
    - D identify primary and secondary sources;
    - E demonstrate understanding of information gathered;
    - F recognize the difference between paraphrasing and plagiarism when using source materials;
    - G create a works cited page; and
    - H use an appropriate mode of delivery, whether written, oral, or multimodal, to present results.

Grade 3 Science Standards: Texas Essential Knowledge and Skills

1-4 Scientific and engineering practices

- **1 The student asks questions, identifies problems, and plans and safely conducts classroom, laboratory, and field investigations to answer questions, explain phenomena, or design solutions using appropriate tools and models. The student is expected to:**
    - A ask questions and define problems based on observations or information from text, phenomena, models, or investigations;
    - B use scientific practices to plan and conduct descriptive investigations and use engineering practices to design solutions to problems;
    - C demonstrate safe practices and the use of safety equipment during classroom and field investigations as outlined in Texas Education Agency-approved safety standards;
    - D use tools, including hand lenses; metric rulers; Celsius thermometers; wind vanes; rain gauges; graduated cylinders; beakers; digital scales; hot plates; meter sticks; magnets; notebooks; Sun, Earth, Moon system models; timing devices; materials to support observation of habitats of organisms such as terrariums, aquariums, and collecting nets; and materials to support digital data collection such as computers, tablets, and cameras, to observe, measure, test, and analyze information;
    - E collect observations and measurements as evidence;
    - F construct appropriate graphic organizers to collect data, including tables, bar graphs, line graphs, tree maps, concept maps, Venn diagrams, flow charts or sequence maps, and input-output tables that show cause and effect; and
    - G develop and use models to represent phenomena, objects, and processes or design a prototype for a solution to a problem.
- **2 The student analyzes and interprets data to derive meaning, identify features and patterns, and discover relationships or correlations to develop evidence-based arguments or evaluate designs. The student is expected to:**
    - A identify advantages and limitations of models such as their size, scale, properties, and materials;
    - B analyze data by identifying any significant features, patterns, or sources of error;
    - C use mathematical calculations to compare patterns and relationships; and
    - D evaluate a design or object using criteria.
- **3 The student develops evidence-based explanations and communicates findings, conclusions, and proposed solutions. The student is expected to:**
    - A develop explanations and propose solutions supported by data and models;

- B communicate explanations and solutions individually and collaboratively in a variety of settings and formats; and
- C listen actively to others' explanations to identify relevant evidence and engage respectfully in scientific discussion.

- **4 The student knows the contributions of scientists and recognizes the importance of scientific research and innovation for society. The student is expected to:**
  - A explain how scientific discoveries and innovative solutions to problems impact science and society; and
  - B research and explore resources such as museums, libraries, professional organizations, private companies, online platforms, and mentors employed in a science, technology, engineering, and mathematics (STEM) field to investigate STEM careers.

5 Recurring themes and concepts

- **5 The student understands that recurring themes and concepts provide a framework for making connections across disciplines. The student is expected to:**
  - A identify and use patterns to explain scientific phenomena or to design solutions;
  - B identify and investigate cause-and-effect relationships to explain scientific phenomena or analyze problems;
  - C use scale, proportion, and quantity to describe, compare, or model different systems;
  - D examine and model the parts of a system and their interdependence in the function of the system;
  - E investigate the flow of energy and cycling of matter through systems;
  - F explain the relationship between the structure and function of objects, organisms, and systems; and
  - G explain how factors or conditions impact stability and change in objects, organisms, and systems.

6 Matter and energy

- **6 The student knows that matter has measurable physical properties that determine how matter is identified, classified, changed, and used. The student is expected to:**
  - A measure, test, and record physical properties of matter, including temperature, mass, magnetism, and the ability to sink or float in water;
  - B describe and classify samples of matter as solids, liquids, and gases and demonstrate that solids have a definite shape and that liquids and gases take the shape of their container;

- C predict, observe, and record changes in the state of matter caused by heating or cooling in a variety of substances such as ice becoming liquid water, condensation forming on the outside of a glass, or liquid water being heated to the point of becoming water vapor (gas); and
- D demonstrate that materials can be combined based on their physical properties to create or modify objects such as building a tower or adding clay to sand to make a stronger brick and justify the selection of materials based on their physical properties.

7-8 Force, motion, and energy

- **7 The student knows the nature of forces and the patterns of their interactions. The student is expected to:**
  - A demonstrate and describe forces acting on an object in contact or at a distance, including magnetism, gravity, and pushes and pulls; and
  - B plan and conduct a descriptive investigation to demonstrate and explain how position and motion can be changed by pushing and pulling objects such as swings, balls, and wagons.
- **8 The student knows that energy is everywhere and can be observed in cycles, patterns, and systems. The student is expected to:**
  - A identify everyday examples of energy, including light, sound, thermal, and mechanical; and
  - B plan and conduct investigations that demonstrate how the speed of an object is related to its mechanical energy.

9-11 Earth and space

- **9 The student knows there are recognizable objects and patterns in Earth's solar system. The student is expected to:**
  - A construct models and explain the orbits of the Sun, Earth, and Moon in relation to each other; and
  - B identify the order of the planets in Earth's solar system in relation to the Sun.
- **10 The student knows that there are recognizable processes that change Earth over time. The student is expected to:**
  - **A compare and describe day-to-day weather in different locations at the same time, including air temperature, wind direction, and precipitation;**
  - B investigate and explain how soils such as sand and clay are formed by weathering of rock and by decomposition of plant and animal remains; and
  - C model and describe rapid changes in Earth's surface such as volcanic eruptions, earthquakes, and landslides.

- **11 The student understands how natural resources are important and can be managed. The student is expected to:**
    - A explore and explain how humans use natural resources such as in construction, in agriculture, in transportation, and to make products;
    - B explain why the conservation of natural resources is important; and
    - C identify ways to conserve natural resources through reducing, reusing, or recycling.

12-13 Organisms and environments

- **12 The student describes patterns, cycles, systems, and relationships within environments. The student is expected to:**
    - A explain how temperature and precipitation affect animal growth and behavior through migration and hibernation and plant responses through dormancy;
    - B identify and describe the flow of energy in a food chain and predict how changes in a food chain such as removal of frogs from a pond or bees from a field affect the ecosystem;
    - C describe how natural changes to the environment such as floods and droughts cause some organisms to thrive and others to perish or move to new locations; and
    - D identify fossils as evidence of past living organisms and environments, including common Texas fossils.
- **13 The student knows that organisms undergo similar life processes and have structures that function to help them survive within their environments. The student is expected to:**
    - A explore and explain how external structures and functions of animals such as the neck of a giraffe or webbed feet on a duck enable them to survive in their environment; and
    - B explore, illustrate, and compare life cycles in organisms such as beetles, crickets, radishes, or lima beans.

Grade 3 Social Studies Standards: Texas Essential Knowledge and Skills (TEKS)

1-2 History

- **1 The student understands how individuals, events, and ideas have influenced the history of various communities. The student is expected to:**
    - A describe how individuals, events, and ideas have changed communities, past and present;
    - B identify individuals, including Pierre-Charles L'Enfant, Benjamin Banneker, and Benjamin Franklin, who have helped to shape communities; and
    - C describe how individuals, including Daniel Boone and the Founding Fathers have contributed to the expansion of existing communities or to the creation of new communities.
- **2 The student understands common characteristics of communities, past and present. The student is expected to:**
    - A identify reasons people have formed communities, including a need for security and laws, religious freedom, and material well-being; and
    - B compare ways in which people in the local community and other communities meet their needs for government, education, communication, transportation, and recreation.

3-4 Geography

- **3 The student understands how humans adapt to and/or modify the physical environment. The student is expected to:**
    - A describe similarities and differences in the physical environment, including climate, landforms, natural resources, and natural hazards;
    - B identify and compare how people in different communities adapt to or modify the physical environment in which they live such as deserts, mountains, wetlands, and plains; and
    - C describe the effects of human processes such as building new homes, conservation, and pollution in shaping the landscape.
- **4 The student understands the concepts of location, distance, and direction on maps and globes. The student is expected to:**
    - A use cardinal and intermediate directions to locate places on maps and globes in relation to the local community;
    - B use a scale to determine the distance between places on maps and globes; and
    - C identify, create, and interpret maps of places that contain map elements, including a title, compass rose, legend, scale, and grid system.

5-6 Economics

- **5 The student understands the purposes of earning, spending, saving, and donating money. The student is expected to:**
    - A identify ways of earning, spending, saving, and donating money; and
    - B create a simple budget that allocates money for spending and saving.
- **6 The student understands the concept of the free enterprise system and how businesses operate in the U.S. free enterprise system. The student is expected to:**
    - A explain how supply and demand affect the price of a good or service;
    - B define and identify examples of scarcity;
    - C explain how the cost of production and selling price affect profits; and
    - D identify individuals, past and present, such as Henry Ford and Sam Walton who have started new businesses.

7-8 Government

- **7 The student understands the basic structure and functions of various levels of government. The student is expected to:**
    - A describe the basic structure of government in the local community, state, and nation;
    - B identify local, state, and national government officials and explain how they are chosen; and
    - C identify services commonly provided by local, state, and national governments.
- **8 The student understands important ideas in historical documents at various levels of government. The student is expected to:**
    - A identify the purposes of the Declaration of Independence and the U.S. Constitution, including the Bill of Rights; and
    - B describe the concept of "consent of the governed."

9 Citizenship

- **9 The student understands characteristics of good citizenship as exemplified by historical and contemporary figures and organizations. The student is expected to:**
    - A identify characteristics of good citizenship, including truthfulness, justice, equality, respect for oneself and others, responsibility in daily life, and participation in government by educating oneself about the issues, respectfully holding public officials to their word, and voting;
    - B identify figures such as Helen Keller, Clara Barton, and Ruby Bridges who exemplify good citizenship;

- C identify and describe individual acts of civic responsibility, including obeying laws, serving and improving the community, serving on a jury, and voting; and
- D identify examples of nonprofit and/or civic organizations such as the Red Cross and explain how they serve the common good.

10-12 Culture

- **10 The student understands ethnic and/or cultural celebrations of the local community and other communities. The student is expected to:**
  - A explain the significance of various ethnic and/or cultural celebrations in the local community and other communities; and
  - B compare ethnic and/or cultural celebrations in the local community with other communities.
- **11 The student understands the role of heroes in shaping the culture of communities, the state, and the nation. The student is expected to:**
  - A identify and describe the heroic deeds of state and national heroes and military and first responders such as Hector P. Garcia, James A. Lovell, and the Four Chaplains; and
  - B identify and describe the heroic deeds of individuals such as Harriet Tubman, Todd Beamer, and other contemporary heroes.
- **12 The student understands the importance of writers and artists to the cultural heritage of communities. The student is expected to identify how various writers and artists such as Kadir Nelson, Tomie dePaola, Carmen Lomas Garza, and Laura Ingalls Wilder and their stories, poems, statues, and paintings contribute to the cultural heritage of communities.**

13 Science, technology, and society

- **13 The student understands how individuals have created or invented new technology and affected life in various communities, past and present. The student is expected to:**
  - A identify individuals who have discovered scientific breakthroughs or created or invented new technology such as Jonas Salk, Cyrus McCormick, Bill Gates, Louis Pasteur, and others; and
  - B describe the impact of scientific breakthroughs and new technology in computers, pasteurization, and medical vaccines on various communities.

14-16 Social studies skills

- **14 The student applies critical-thinking skills to organize and use information acquired from a variety of valid sources, including technology. The student is expected to:**
  - A gather information, including historical and current events and geographic data, about the community using a variety of resources;

- B interpret oral, visual, and print material by sequencing, categorizing, identifying the main idea, distinguishing between fact and opinion, identifying cause and effect, comparing, and contrasting; and
- C interpret and create visuals, including graphs, charts, tables, timelines, illustrations, and maps.

- **15 The student communicates in written, oral, and visual forms. The student is expected to:**
  - A use social studies terminology correctly;
  - B create and interpret timelines;
  - C apply the terms year, decade, and century to describe historical times;
  - D express ideas orally based on knowledge and experiences, and;
  - E create written and visual material such as stories, pictures, maps, and graphic organizers to express ideas.
- **16 The student uses problem-solving and decision-making skills, working independently and with others. The student is expected to use problem-solving and decision-making processes to identify a problem, gather information, list and consider options, consider advantages and disadvantages, choose and implement a solution, and evaluate the effectiveness of the solution.**