Fourth Grade Critical Standards

English-Language Arts

- 1 – Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- 4 – Determine the meaning of words and phrases as they are used in a text, including those that allude to significant characters found in mythology (e.g., *Herculean*).
- 10 – Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.
- 11 – Determine the main idea of a text and explain how it is supported by key details; summarize the text.
- 13 – Determine the meaning of general academic and domain-specific words or phrases in a text relevant to a *Grade 4 topic or subject area*.
- 16 – Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- 20 – Know and apply grade-level phonics and word analysis skills in decoding words.
  - Use combined knowledge of all letter-sound correspondences, syllabication patterns, and morphology (e.g., roots and affixes) to read accurately unfamiliar multisyllabic words in context and out of context.
- 21 – Read with sufficient accuracy and fluency to support comprehension.
  - Read on-level text with purpose and understanding.
  - Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings.
  - Use context to confirm or self-correct word recognition and understanding, rereading as necessary.
- 25 – Produce clear and coherent writing in which the development and organization are appropriate to task, purpose, and audience.
- 38 – Demonstrate command of the conventions of Standard English grammar and usage when writing or speaking.
  - Use relative pronouns (*who, whose, whom, which, that*) and relative adverbs (*where, when, why*).
  - Form and use the progressive (e.g., *I was walking; I am walking; I will be walking*) verb tenses.
  - Use modal auxiliaries (e.g., *can, may, must*) to convey various conditions.
  - Order adjectives within sentences according to conventional patterns (e.g., *a small red bag* rather than *a red small bag*).
  - Form and use prepositional phrases.
  - Produce complete sentences, recognizing and correcting inappropriate fragments and run-ons.
  - Correctly use frequently confused words (e.g., *to, too, two; there, their*).
- 39 – Demonstrate command of the conventions of Standard English capitalization, punctuation, and spelling when writing.
  - Use correct capitalization.
  - Use commas and quotation marks to mark direct speech and quotations from a text.
  - Use a comma before a coordinating conjunction in a compound sentence.
  - Spell grade-appropriate words correctly, consulting references as needed.
- 41 – Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on *Grade 4 reading and content*, choosing flexibly from a range of strategies.
  - Use context (e.g., definitions, examples, or restatements in text) as a clue to the meaning of a word or phrase.
  - Use common, grade-appropriate Greek and Latin affixes and roods as clues to the meaning of a word (e.g., *telegraph, photograph, autograph*).
  - c. Consult reference materials (e.g., dictionaries, glossaries, thesauruses), both print and digital, to find the pronunciation and determine or clarify the precise meaning of key words and phrases.

Math

- 3 – Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

- 9 – Fluently add and subtract multi-digit whole numbers using the standard algorithm.
- 10 – Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 11 – Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 13 – Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model.
- 14 – Understand a fraction a/b with $a > 1$ as a sum of fractions 1/b.
- 16 – Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100. (Students who can generate equivalent fractions can develop strategies for adding fractions with unlike denominators in general. But addition and subtraction with unlike denominators in general is not a requirement at this grade.)
- 18 – Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model.

Science

- 1 – Plan and carry out an experiment to determine the effects of balanced and unbalanced forces on the motion of an object using one variable at a time, including number, size, direction, speed, position, friction, or air resistance (e.g., balanced forces pushing from both sides on an object, such as a box, producing no motion; unbalanced force on one side of an object, such as a ball, producing motion), and communicate these findings graphically.
- 2 – Investigate, measure, and communicate in a graphical format how an observed pattern of motion (e.g., a child swinging in a swing, a ball rolling back and forth in a bowl, two children teetering on a see-saw, a model vehicle rolling down a ramp of varying heights, a pendulum swinging) can be used to predict the future motion of an object.
- 3 – Explore objects that can be manipulated in order to determine cause-and-effect relationships (e.g., distance between objects affecting strength of a force, orientation of magnets affecting direction of a magnetic force) of electric interactions between two objects not in contact with one another (e.g., force on hair from an electrically charged balloon, electrical forces between a charged rod and pieces of paper) or magnetic interactions between two objects not in contact with one another (e.g., force between two permanent magnets or between an electromagnet and steel paperclips, force exerted by one magnet versus the force exerted by two magnets).
- 4 – Apply scientific ideas about magnets to solve a problem through an engineering design project (e.g., constructing a latch to keep a door shut, creating a device to keep two moving objects from touching each other such as a maglev system).
- 5 – Obtain and combine information to describe that organisms are classified as living things, rather than nonliving things, based on their ability to obtain and use resources, grow, reproduce, and maintain stable internal conditions while living in a constantly changing external environment.
- 6 – Create representations to explain the unique and diverse life cycles of organisms other than humans (e.g., flowering plants, frogs, butterflies), including commonalities such as birth, growth, reproduction, and death.
- 7 – Examine data to provide evidence that plants and animals, excluding humans, have traits inherited from parents and that variations of these traits exist in groups of similar organisms (e.g., flower colors in pea plants, fur color and pattern in animal offspring).
- 9 – Analyze and interpret data from fossils (e.g., type, size, distribution) to provide evidence of organisms and the environments in which they lived long ago (e.g., marine fossils on dry land, tropical plant fossils in arctic areas, fossils of extinct organisms in any environment).

Social Studies

- 1 – Compare historical and current economic, political, and geographic information about Alabama on thematic maps, including weather and climate, physical-relief, waterway, transportation, political, economic development, land-use, and population maps.
- 2 – Relate reasons for European exploration and settlement in Alabama to the impact of European explorers on trade, health, and land expansion in Alabama.
- 3 – Explain the social, political, and economic impact of the War of 1812, including battles and significant leaders of the Creek War, on Alabama.
- 5 – Describe Alabama's entry into statehood and establishment of its three branches of government and the constitutions.
- 6 – Describe cultural, economic, and political aspects of the lifestyles of early nineteenth-century farmers, plantation owners, slaves, and townspeople.
- 8 – Explain Alabama's economic and military role during the Civil War.
- 11 – Describe the impact of World War I on Alabamians, including the migration of African Americans from Alabama to the North and West, utilization of Alabama's military installations and training facilities, and increased production of goods for the war effort.
- 12 – Explain the impact the 1920s and Great Depression had on different socioeconomic groups in Alabama.
- 15 – Identify major world events that influenced Alabama since 1950, including the Korean Conflict, the Cold War, the Vietnam War, the Persian Gulf War, and the War on Terrorism.
- 16 – Determine the impact of population growth on cities, major road systems, demographics, natural resources, and the natural environment of Alabama during the late twentieth and early twenty-first centuries.