Science

Strand A: The Nature of Matter

Standard 1: The student understands that all matter has observable, measurable properties.

Benchmark

SC.A.1.2.2 The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

Strand H: The Nature of Science

Standard 1: The student uses the scientific processes and habits of mind to solve problems.

Benchmarks

SC.H.1.1.1 The student knows that in order to learn, it is important to observe the same things often and compare them.
SC.H.1.2.1 The student knows that it is important to keep accurate records and descriptions to provide information and clues on causes of discrepancies in repeated experiments.
SC.H.1.1.2 The student knows that when tests are repeated under the same condition, similar results are usually obtained.
SC.H.1.2.2 The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.
SC.H.1.1.3 The student knows that in doing science, it is often helpful to work with a team and to share findings with others.
SC.H.1.2.3 The student knows that to work collaboratively, all team members should be free to reach, explain, and justify their own individual conclusions.
SC.H.1.1.4 The student knows that people use scientific processes including hypotheses, making inferences, and recording and communicating data when exploring the natural world.
SC.H.1.2.4 The student knows that to compare and contrast observations and results is an essential skill in science.
SC.H.1.1.5 The student uses the senses, tools, and instruments to obtain information from his or her surroundings.
SC.H.1.2.1 The student knows that it is important to keep accurate records and descriptions to provide information and clues on causes of discrepancies in repeated experiments.
SC.H.1.2.2 The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.
SC.H.1.2.3 The student knows that to work collaboratively, all team members should be free to reach, explain, and justify their own individual conclusions.
SC.H.1.2.4 The student knows that to compare and contrast observations and results is an essential skill in science.

Standard 3: The student understands that science, technology, and society are interwoven and interdependent.

Benchmarks
SC.H.3.1.1 The student knows that scientists and technologists use a variety of tools (e.g., thermometers, magnifiers, rulers, and scales) to obtain information in more detail and to make work easier.
SC.H.3.2.2 The student knows that data are collected and interpreted in order to explain an event or concept.
SC.H.3.2.4 The student knows that, through the use of science processes and knowledge, people can solve problems, make decisions, and form new ideas.
Strand B: Measurement

Standard 1: The student measures quantities in the real world and uses the measures to solve problems.

Benchmarks
MA.B.1.1.1 The student uses and describes basic measurement concepts including length, weight, digital and analog time, temperature, and capacity.
MA.B.1.2.1 The student uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.
MA.B.1.2.2 The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

Strand C: Geometry and Spatial Sense

Standard 1: The student describes, draws, identifies, and analyzes two- and three-dimensional shapes.

Benchmarks
MA.C.1.1.1 The student understands and describes the characteristics of basic two- and three-dimensional shapes.
MA.C.1.2.1 The student given a verbal description, draws and/or models two- and three-dimensional shapes and uses appropriate geometric vocabulary to write a description of a figure or a picture composed of geometric figures.
MA.C.2.2.1 The student understands the concepts of spatial relationships, symmetry, reflections, congruency, and similarity.

Strand D: Algebraic Thinking

Standard 1: The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions.

Benchmark
MA.D.1.1.1 The student describes a wide variety of classification schemes and patterns related to physical characteristics and sensory attributes, such as rhythm, sound, shapes, colors, numbers, similar objects, similar events.

Strand E: Data Analysis and Probability

Standard 1: The student understands and uses the tools of data analysis for managing information.

Benchmarks
MA.E.1.1.1 The student displays solutions to problems by generating, collecting, organizing, and analyzing data using simple graphs and charts.
MA.E.1.2.1 The student solves problems by generating, collecting, organizing, displaying, and analyzing data using histograms, bar graphs, circle graphs, line graphs, pictographs, and charts.

Standard 3: The student uses statistical methods to make inferences and valid arguments about real-world situations.

Benchmark
MA.E. 3.1.1 The student designs a simple experiment to answer a class question, collects appropriate information, and interprets the results using graphical displays of information, such as line graphs, pictographs, and charts.
Strand A: Reading

Standard 1: The student uses the reading process effectively.

Benchmarks
LA.A.1.2.1 The student uses a table of contents, index, headings, captions, illustrations, and major words to anticipate or predict content and purpose of a reading selection.
LA.A.1.1.1 The student predicts what a passage is about based on its title and illustrations.
LA.A.1.1.3 The student uses knowledge of appropriate grade-, age-, and developmental-level vocabulary in reading.
LA.A.1.1.4 The student increases comprehension by rereading, retelling, and discussion.

Standard 2: The student constructs meaning from a wide range of texts.

Benchmarks
LA.A 2.1.1 The student determines the main idea or essential message from text and identifies supporting information.
LA.A 2.2.1 The student reads text and determines the main idea or essential message, identifies relevant supporting details and facts, and arranges events in chronological order.
LA.A 2.1.5 The student uses simple materials of the reference system to obtain information.
LA.A 2.2.5 The student reads and organizes information for a variety of purposes, including making a report, conducting interviews, taking a test, and performing an authentic task.
LA.A 2.2.8 The student selects and uses a variety of appropriate reference materials, including multiple representations of information, such as maps, charts, and photos, to gather information for research projects.

Strand B: Writing

Standard 1: The student uses writing processes effectively.

Benchmarks
LA.B.1.2.1 The student prepares for writing by recording thoughts, focusing on a central idea, grouping related ideas, and identifying the purpose for writing.
LA.B.2.2.3 The student writes for a variety of occasions, audiences, and purposes.

Strand C: Listening, Viewing, and Speaking

Standard 1: The student uses listening strategies effectively.

Benchmarks
LA.C.1.1.1 The student listens for a variety of informational purposes, including curiosity, pleasure, getting directions, performing tasks, solving problems, and following rules.
LA.C.1.2.1 The student listens and responds to a variety of oral presentations, such as stories, poems, skits, songs, personal accounts, informational speeches.
LA.C.1.1.3 The student carries on a conversation with another person, seeking answers and further explanations of the other’s ideas through questioning and answering.
LA.C.1.2.3 The student carries on an extended conversation with a group of friends.
LA.C.1.1.4 The student retells specific details of information heard, including sequence of events.
LA.C.1.2.4 The student listens attentively to the speaker, including making eye contact and facing the speaker.
LA.C.1.2.5  The student responds to speakers by asking questions, making contributions, and paraphrasing what is said.

**Standard 3: The student uses speaking strategies effectively.**

**Benchmarks**
LA.C.3.2.1  The student speaks clearly at an understandable rate and uses appropriate volume.
LA.C.3.2.2  The student asks questions and makes comments and observations to clarify understanding of content, processes, and experiences.
LA.C.3.2.3  The student speaks for specific occasions, audiences, and purposes, including conversations, discussions, projects, and informational or imaginative presentations.
LA.C.3.2.4  The student uses eye contact and gestures that engage the audience.
LA.C.3.2.5  The student participates as a contributor and occasionally acts as a leader in a group discussion.

**Strand D: Language**

**Standard 1: The student understands the nature of language.**

**Benchmarks**
LA.D.1.1.1  The student recognizes basic patterns in and functions of language (patterns such as characteristic sounds and rhythms and those found in written forms; functions such as asking questions, expressing oneself, describing objects or experience, and explaining).
LA.D.1.2.1  The student understands that there are patterns and rules in the syntactic structure, symbols, sounds, and meanings conveyed through the English language.