

1st Grade “I Can” Statements

1st Grade Science State Science Core Scope and Sequence and “I can” Statements (2010)

- The scope is the standards with their objectives and indicators.
- The sequence is any order you want to teach the standards, however, teach each standard in the order they are shown.
- The “I can” statements are the indicators under each objective.

Standard 1 – Intended Learning Outcomes

The Processes of Science, Communication of Science, and the Nature of Science

Students will be able to apply scientific processes, communicate scientific ideas effectively, and understand the nature of science.

Objective 1 Generating Evidence: Using the processes of scientific investigation (i.e. framing questions, designing investigations, conducting investigations, collecting data, drawing conclusions)

--Framing questions: I can observe using senses, create a hypothesis, and focus a question that can lead to an investigation.

--Designing investigations: I can consider reasons that support ideas, identify ways to gather information that could test ideas, design fair tests, share designs with peers for input and refinement.

--Conducting investigations: I can observe, manipulate, measure, describe.

--Collecting data: I can decide what data to collect and how to organize, record, and manipulate the data.

--Drawing conclusions: I can analyze data, making conclusions connected to the data or the evidence gathered, identifying limitations or conclusions, identifying future questions to investigate.

Objective 2 Communicating Science: Communicating effectively using science language and reasoning

--I can develop social interaction skills with peers.

--I can share ideas with peers.

--I can connect ideas with reasons (evidence).

--I can use multiple methods of communicating reasons/evidence (verbal, charts, graphs).

Objective 3 Knowing in Science: Understanding the nature of science

--I can know that ideas are supported by reasons.

--I can know that there are limits to ideas in science (i.e. what can be observed, measured, and verified).

--I can know that differences in conclusions are best settled through additional observations and investigations.

--I can know that communication of ideas in science is important for helping to check the reasons for ideas.

Standard 2—Earth and Space Science

Students will gain an understanding of Earth and Space through the study of earth materials, celestial movement, and weather.

Objective 1 Investigate the natural world including rock, soil and water.

- I can observe, compare, describe, and sort components of soil by size, texture, and color.
- I can identify and describe a variety of natural sources of water, including streams, lakes, and oceans.
- I can gather evidence about the uses of rocks, soil, and water.

Objective 2 Observe and describe the changes and appearance of the sun and moon during daylight.

- I can observe the sun at different times during the day and report observations to peers.
- I can observe and chart the moon when it is visible during the day.

Objective 3 Compare and contrast seasonal weather changes.

- I can identify characteristics of the seasons of the year.
- I can identify characteristics of weather, e.g., types of precipitation, sunny, windy, foggy, and cloudy.
- I can observe and record weather information within each season.

Standard 3 Physical Science

Students will gain an understanding of Physical Science through the study of force and motion and the properties of matter.

Objective 1 Analyze changes in the movement of nonliving things.

- I can describe, classify, and communicate observations about the motion of objects, e.g., straight, zigzag, circular, curved, back-and-forth, and fast or slow.
- I can compare and contrast the movement of objects using drawings, graphs, and numbers.
- I can explain how a push or pull can affect how an object moves.

Objective 2 Analyze objects and record their properties.

- I can sort, classify, and chart objects by observable properties, e.g., size, shape, color, and texture.
- I can predict measurable properties such as weight, temperature, and whether objects sink or float; test and record data.
- I can predict, identify, and describe changes in matter when heated, cooled, or mixed with water.

Standard 4 Life Science

Students will gain an understanding of life science through the study of changes in organisms over time and the nature of living things.

Objective 1 Communicate observations about the similarities and differences between offspring and between populations.

- I can communicate observations about plants and animals, including humans, and how they resemble their parents.
- I can analyze the individual similarities and differences within and across larger groups.

Objective 2 Living things change and depend upon their environment to satisfy their basic needs.

- I can make observations about living things and their environment using the five senses.
- I can identify how natural earth materials (e.g., food, water, air, light, and space), help to sustain plant and animal life.
- I can describe and model life cycles of living things.