

2nd Grade “I Can” Statements

2nd 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 Describe the characteristics of different rocks.

- I can explain how smaller rocks come from the breakage and weathering of larger rocks.
- I can describe rocks in terms of their parts (e.g. crystals, grains, cement).
- I can sort rocks based upon color, hardness, texture, layering, particle size and type (i.e. igneous, metamorphic, sedimentary).

Objective 2 Observe and record recognizable objects and patterns in the night sky.

- I can observe, describe, and record patterns in the appearance and apparent motion of the moon in the night sky.
- I can observe and describe the number, arrangement and color/brightness of stars in the night sky.

Objective 3 Observe, describe, and measure seasonal weather patterns and local variations.

- I can compare and contrast the seasonal weather patterns during the school year.
- I can analyze and interpret data such as temperatures in different locations and different times.

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 Communicate observations about falling objects.

- I can observe falling objects and identify things that prevent them from reaching the ground.
- I can communicate observations that similar objects of varying masses fall at the same rate.

Objective 2 Compare and contrast the differences in how different materials respond to change.

- I can model physical changes of various materials.
- I can investigate and provide evidence that matter is not destroyed or created through changes.

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 Tell how external features affect an animals' ability to survive in its environment.

- I can compare and contrast the characteristics of living things in different habitats.
- I can develop, communicate, and justify an explanation as to why a habitat is or is not suitable for a specific organism.
- I can create possible explanations as to why some organisms no longer exist, but similar organisms are still alive today.

Objective 2 Identify basic needs of living things (plants and animals) and their abilities to meet their needs.

- I can communicate and justify how the physical characteristics of living things help them meet their basic needs.
- I can observe, record, and compare how the behaviors and reactions of living things help them meet their basic needs.
- I can identify behaviors and reactions of living things in response to changes in the environment including seasonal changes in temperature and precipitation.