Kindergarten "I Can" Statements"

Kindergarten 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 and understanding of Earth and Space through the study of earth materials, celestial movement, and weather.

Objective 1 Investigate non-living things.
--I can observe and record that big rocks break down into small rocks, e.g., boulders, rocks, pebbles, sand.
– I can demonstrate how water and wind move nonliving things.
--I can sort, group, and classify Earth materials, e.g., hard, smooth, rough, shiny, flat.

Objective 2 Observe and describe changes in day and night.
– I can compare and contrast light and dark in a day-night cycle and identify the changes as a pattern.
– I can investigate, interpret, and explain to others that the sun provides heat and light to Earth.
– I can examine what happens when you block the sun's light. Explore shadows and temperature changes.

Objective 3 Compare changes in weather over time.
– I can observe and record that weather changes occur from day-to-day and weather patterns occur from season to season.
– I can communicate ways weather can affect individuals.
– I can describe, predict, and discuss daily weather conditions and how predicting the weather can improve our lives.

Standard 3 Physical Science
Students will gain an understanding of Physical Science though the study of force and motion and the properties of matter.

Objective 1 Identify how non-living things move.
– I can observe and record how objects move in different ways, e.g., fast, slow, zigzag, round and round, up and down, straight line, back and forth,
slide, roll, bounce, spin, swing, float, and glide.
– I can compare and contrast how physical properties of objects affect their movement, e.g., hard, soft, feathered, round, square, cone, geometric shapes.

Objective 2 Describe parts of non-living things.
– I can describe how parts are used to build things and how things can be taken apart.
– I can explain why things may not work the same if some of the parts are missing.

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 Investigate living things.
– I can construct questions, give reasons, and share findings about all living things.
– I can compare and contrast young plants and animals with their parents.
– I can describe some changes in plants and animals that are so slow or so fast that they are hard to see (e.g., seasonal change, “fast” blooming flower, slow growth, hatching egg).

Objective 2 Describe the parts of living things.
– I can differentiate between the five senses and related body parts.
– I can identify major parts of plants, e.g., roots, stem, leaf, flower, trunk, branches.
– I can compare the parts of different animals, e.g., skin, fur, feathers, scales; hand, wing, flipper, fin.