

GSE Science Standard Content Changes K - 1

*All standards begin with "obtain, evaluate, communicate" which denotes a necessary change in pedagogy for each and every standard - specific standard content changes beyond language are noted below as are specific approach changes within standards. Standards and elements of standards that have been deleted have also been noted.

Kindergarten

SKE1 -

- a. ask questions to classify objects...
- b. develop a model to communicate using pictures and words the changes that occur...

*We no longer teach SKE1 c. recognize that the sun supplies heat and light to Earth.

*The concept of energy should not be addressed until after 2nd grade.

SKE2 -

- a. ask questions to identify and describe...
- b. construct an argument...
- c. use tools to observe and record...

SKP1 -

- a. ask questions to compare and sort...
- b. use senses and science tools to classify...
- c. plan and carry out an investigation to predict and observe whether objects, based on their physical characteristics, will sink or float.

SKP2 -

- a. plan and carry out an investigation to determine the relationship between an object's physical attributes and its resulting motion
- b. construct an argument as to the best way to move an object

SKP3 -

This standard has been removed. While not explicit - the concept of gravity is incorporated into SKP2.

SKL1 -

- a. construct an explanation based on observations...
- b. develop a model to represent how a set of organisms and non-living materials are sorted into groups based on their attributes
- c. *moved to SKL2

SKL2 -

a, b, c, d, and e are reduced to simply a, b, c

d. has been incorporated into c. and e. has been removed

*Instead of explaining similarities students are expected to construct arguments supported by evidence for how animals (a) and plants (b) can be grouped together according to their features.

c. requires students to ask questions and make observations to identify similarities and differences to offspring and their parents and to other members of the same species.

First Grade

S1E1

- a. represent data in tables and/or graphs to identify and describe...
- b. ask questions to identify forms of precipitation such as rain, snow, sleet, and hailstones as either solid (ice) or liquid (water).
- c. "analyze data to identify seasonal patterns of change" replaces "correlate data" previously listed in (c.)

S1E2

The concepts of liquid and solid water were incorporated with S1E1. The additional concepts were removed based on developmental appropriateness feedback from survey.

S1P1

- a. use observations to construct an explanation of how light is required to make objects visible
- b. ask questions to identify and compare sources of light

- c. plan and carry out an investigation of shadows by placing objects at various points from a source of light
- d. construct an explanation to observe and provide evidence that vibrating materials can make sound and that sound can make materials vibrate
- e. design a device that can serve as an emergency alert system using light and/or sound to communicate over a distance

S1P2

- a. construct an explanation of how magnets are used in everyday life. (Clarification statement: Everyday life objects could include refrigerator magnets, toys, magnetic latches, and name tags.)
- b. plan and carry out an investigation to demonstrate how magnets attract and repel each other and the effect of magnets on common objects
- c. *the identification of objects and materials that do not block magnetic force has been removed from the standard

S1L1

- a. ask questions to identify the parts of a plant - root, stem, leaf, and flower
- b. ask questions to compare and contrast the basic needs of plants (air, water, light, and nutrients) and animals (air, water, food, and shelter).
- c. design a solution to ensure that a plant or animal has all its needs met.
- d. *this element has been removed* compare and describe various animals - appearance, motion, growth, basic needs - no longer a part of the standard