



Standards and Benchmarks

FL: Next Gen: Science / FL: Kindergarten

August 23, 2011, 12:28PM



Subject:	Grade:	Strand:
FL: Next Gen: Science	*FL: Kindergarten	(Select One)

Key:

Subject

Strand

Grade

Standard

Benchmark

FL: Next Gen: Science

Nature of Science

FL: Kindergarten

BIG IDEA 1: The Practice of Science A: Scientific inquiry is a multifaceted activity; The processes of science include the formulation of scientifically investigable questions, construction of investigations into those questions, the collection of appropriate data, the evaluation of the meaning of those data, and the communication of this evaluation. B: The processes of science frequently do not correspond to the traditional portrayal of "the scientific method." C: Scientific argumentation is a necessary part of scientific inquiry and plays an important role in the generation and validation of scientific knowledge. D: Scientific knowledge is based on observation and inference; it is important to recognize that these are very different things. Not only does science require creativity in its methods and processes, but also in its questions and explanations.

- SC.K.N.1.1
Collaborate with a partner to collect information.
- SC.K.N.1.2
Make observations of the natural world and know that they are descriptors collected using the five senses.
- SC.K.N.1.3
Keep records as appropriate -- such as pictorial records -- of investigations conducted.
- SC.K.N.1.4
Observe and create a visual representation of an object which includes its major features.
- SC.K.N.1.5
Recognize that learning can come from careful observation.

Earth and Space Science


BIG IDEA 5: Earth in Space and Time Humans continue to explore Earth's place in space. Gravity and energy influence the formation of galaxies, including our own Milky Way Galaxy, stars, the Solar System, and Earth. Humankind's need to explore continues to lead to the development of knowledge and understanding of our Solar System.

- SC.K.E.5.1
Explore the Law of Gravity by investigating how objects are pulled toward the ground unless something holds them up.
- SC.K.E.5.2
Recognize the repeating pattern of day and night.
- SC.K.E.5.3
Recognize that the Sun can only be seen in the daytime.
- SC.K.E.5.4
Observe that sometimes the Moon can be seen at night and sometimes during the day.
- SC.K.E.5.5
Observe that things can be big and things can be small as seen from Earth.
- SC.K.E.5.6
Observe that some objects are far away and some are nearby as seen from Earth.


Physical Science

BIG IDEA 8: Properties of Matter A. All objects and substances in the world are made of matter. Matter has two fundamental properties: matter takes up space and matter has mass. B. Objects and substances can be classified by their physical and chemical properties. Mass is the amount of matter (or "stuff") in an object. Weight, on the other hand, is the measure of force of attraction (gravitational force) between an object and Earth.


The concepts of mass and weight are complicated and potentially confusing to elementary students. Hence, the more familiar term of "weight" is recommended for use to stand for both mass and weight in grades K-5. By grades 6-8, students are expected to understand the distinction between mass and weight, and use them appropriately.

-  SC.K.P.8.1
Sort objects by observable properties, such as size, shape, color, temperature (hot or cold), weight (heavy or light) and texture.


BIG IDEA 9: Changes in Matter A. Matter can undergo a variety of changes. B. Matter can be changed physically or chemically.

-  SC.K.P.9.1
Recognize that the shape of materials such as paper and clay can be changed by cutting, tearing, crumpling, smashing, or rolling.


BIG IDEA 10: Forms of Energy A. Energy is involved in all physical processes and is a unifying concept in many areas of science. B. Energy exists in many forms and has the ability to do work or cause a change.

-  SC.K.P.10.1
Observe that things that make sound vibrate.

BIG IDEA 12: Motion of Objects A. Motion is a key characteristic of all matter that can be observed, described, and measured. B. The motion of objects can be changed by forces.




-  SC.K.P.12.1
Investigate that things move in different ways, such as fast, slow, etc.

BIG IDEA 13: Forces and Changes in Motion A. It takes energy to change the motion of objects. B. Energy change is understood in terms of forces--pushes or pulls. C. Some forces act through physical contact, while others act at a distance.

-  SC.K.P.13.1
Observe that a push or a pull can change the way an object is moving.

Life Science

BIG IDEA 14: Organization and Development of Living Organisms A. All plants and animals, including humans, are alike in some ways and different in others. B. All plants and animals, including humans, have internal parts and external structures that function to keep them alive and help them grow and reproduce. C. Humans can better understand the natural world through careful observation.

-  SC.K.L.14.1
Recognize the five senses and related body parts.
-  SC.K.L.14.2
Recognize that some books and other media portray animals and plants with characteristics and behaviors they do not have in real life.
-  SC.K.L.14.3
Observe plants and animals, describe how they are alike and how they are different in the way they look and in the things they do.