

Course/Grade Level: First Grade Science Curriculum

S.1.1 Students will develop the physical and intellectual abilities of scientific inquiry.

Students will...

- S.1.1.1 identify properties of objects. (K-2.1.1.1)
Instructional Example: state properties of objects such as leaves, shells, rocks, water, and insects
- S.1.1.2 observe by using touch, sight, taste, smell, and hearing.
- S.1.1.3 classify and arrange groups of objects by a variety of properties, one property at a time. (K-2.1.1)
Instructional Examples:
- group seeds by color, texture, and size
 - group objects by those that float and those that sink
- S.1.1.4 use appropriate materials, tools, and safety procedures to collect information (e.g., use tools such as hand lenses, balance scales, thermometers, and goggles with appropriate precautions, procedures, and safety equipment). (K-2.1.1.4)
- S.1.1.5 describe an observation orally or pictorially. (K-2.1.1.5)
Instructional Examples:
- draw pictures of plant growth on a daily basis
 - note color of stalk of celery with dye in the water
 - note number of leaves on a stem
 - label plant parts

Vocabulary: classify, describe, properties, objects, observe, safety, senses

S.1.2 Students will explore the world by observing and manipulating common objects and materials in their environment.

Students will...

- S.1.2.1 separate or sort a group of objects or materials by properties. (K-2.2.1.2)
Instructional Example: compare and sort objects by shape, size, mass, and color
- S.1.2.2 compare the properties of solids and liquids. (K-2.2.1.3)
Instructional Examples:
- compare properties of liquid water and frozen water
 - compare melted chocolate chips and solid chocolate chips
- S.1.2.3 describe the position of an object in relation to other objects. (K-1.2.1.4)

Vocabulary: compare, investigate, liquids, and solids

S.1.3 Students will develop an understanding of biological concepts.

Students will...

S.1.3.1 explain that organisms live only in environments in which their basic needs can be met. (K-2.3.1.1)

Instructional Examples:

- learn that people need air, water, food, shelter, and care
- learn that plants need light, air, and water
- learn that animals need air, water, food, and shelter

S.1.3.2 observe life cycles of different living things. (K-2.3.1.2)

Instructional Example: draw the life cycle stages of frogs or flowers

S.1.3.3 observe living things in various environments. (K-2.3.1.3)

Instructional Examples:

- care for classroom plants
- take nature walks to look for natural habitats
- observe terrariums and aquariums

S.1.3.4 examine the structures/parts of plants and animals (e.g., butterflies have wings, legs, thorax, abdomen and antennae; plants have roots, leaves, stems, and flowers). (K-2.3.1.4)

S.1.3.5 discuss animals in the six basic groups (mammals, reptiles, amphibians, insects, birds, fish). (K-2.3.1.5)

Vocabulary: basic needs, examine, habitats, organism, structure

S.1.4 Students will observe closely the objects and materials in their environment.

Students will...

S.1.4.1 observe, compare, and sort earth materials. (K-2.4.1.1)

S.1.4.2 observe and recognize the sun, moon, stars, clouds, birds, airplanes, and other objects in the sky. (K-2.4.2.1)

S.1.4.3 describe that the sun provides light and warmth. (K-2.4.2.2)

Instructional Examples:

- observe that shadows are formed when an object (buildings, window blinds, clouds, etc.) block the sunlight
- stand in the shade to see that it is cooler than standing in the direct sunlight

S.1.4.4 observe changes in weather from day to day. (K-2.4.3.1)

Vocabulary: earth, materials, weather

S.1.5 Students will experience a variety of educational activities that involve science and technology.

Students will ...

S.1.5.1 explore the way things work (e.g., wind-up clocks, music boxes, and toys). (K-2.5.1.1)

S.1.5.2 experience science through technology (e.g., use tools such as balance, thermometer, hand lens and science software programs). (K-2.5.1.2)

Vocabulary: explore

S.1.6 Students will experience a variety of personal and environmental health activities.

Students will ...

S.1.6.1 engage in personal care. (K-2.6.1.1)

Instructional Examples:

- practice proper hand washing
- practice teeth brushing
- engage in exercise
- discuss appropriate types of clothing for the weather
- discuss personal hygiene

S.1.6.2 identify healthy foods. (K-2.6.1.2)

Instructional Examples:

- cut food pictures from magazines and sort into healthy and not healthy groups
- use the food pyramid

S.1.6.3 propose ways that humans need to practice being safe (e.g., obey traffic signals, use crosswalks, dangers of talking to strangers). (K-2.6.1.3)

S.1.6.4 propose ways to care for the environment (e.g., reduce, reuse, recycle; Earth Day's projects).

Vocabulary: environment, nutrition, personal care

S.1.7 Students will apply scientific inquiry and learn about people in science.
Students will ...

S.1.7.1 use science explorations that make their minds wonder and know that they are practicing science. (K-2.7.1.1)

Instructional Example: The teacher guides students through the scientific process by asking simple questions. The following are simple questions that could be used to start the process:

- Does an apple float in water?
- How long will it take for a popsicle to melt?
- Rub your hands together very fast. What happens? How do they feel?

S.1.7.2 use technology to learn about people in science. (K-2.7.1.2)

Instructional Example: (use current resources)

- read short stories
- view films or videos
- listen to guest speakers who are involved in science

Vocabulary: predict, scientist