

Grade Level Expectations for the Sunshine State Standards

Science First Grade



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**Sunshine State Standards
Grade Level Expectations
Science
First Grade**

The first grade student:

The Nature of Matter

- knows that objects can be grouped according to their physical characteristics (for example, shape, color, texture, form, size).
- knows the effects of heating and cooling on solids, liquids and gases.
- knows the physical properties of ice, water, and steam.
- knows that objects are composed of parts that are too small to be seen without magnification (for example, rocks, cookies, string, paper).

Energy

- knows that heat from the Sun has varying effects depending on the surface it strikes.
- predicts which materials will allow light to pass through and which ones will not.
- understands that models (for example, terrarium or aquarium) can be used to observe processes and changes over time.
- knows ways that human activities require and release energy.
- understands that people need food for energy.
- knows nutritional value of various foods (for example, fruit, cereals, dairy, meat).

Force and Motion

- knows the relative order of speeds of various objects (for example, snails, turtles tricycles, bicycles, cars, jets, rockets).
- knows that various things move at different speeds when different forces are applied.
- understands various ways gravity affects the motion of objects (for example, an object on a ramp, an object that is dropped).
- knows that vibrations of objects (for example, strings, drumheads, rubber bands) cause sounds.

Processes that Shape the Earth

- extends and refines knowledge that the surface of the Earth is composed of different types of solid materials.
- knows some kinds of organisms that live on or near the surface of the Earth in land, water, and air.
- uses graphic organizers to display weather data and show weather patterns.
- extends and refines knowledge of ways to care for the Earth at home and in school.

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Earth and Space

- knows that the amount of light reflected by the Moon is a little different every day but the Moon appears the same again about every 28 days.
- knows that night and day are caused by the rotation of the Earth.
- knows and differentiates objects seen in the day and night sky (for example, clouds, Sun, stars, Moon, planets).

Processes of Life

- understands that living things need food, water, space, and shelter to survive.
- knows how to classify things as living and nonliving.
- knows ways organisms change as they grow and mature (for example, as people grow up their size changes).
- knows that living things grow and change in different ways and in different lengths of time (for example, butterfly, frog, daisy, pine tree).
- knows that plants and animals have adaptations that help them survive in their environment (camouflage, teeth, spines).
- understands different ways in which living things can be grouped (for example, plants/animals, edible plants/non-edible plants).
- knows that plants and animals are similar but not identical to their parents.
- knows plants and animals that live in a particular habitat (for example, black bears in the forest, whales in the ocean, camels in the desert, ducks in the wetlands).
- knows the characteristics of the climate in different habitats (for example, sunlight, moisture, temperature).
- knows some ways in which animals and plants are adapted to living in different environments.

How Living Things Interact with Their Environments.

- knows that environments have living and nonliving parts.
- knows that plants produce oxygen and food for animals.
- understands that animals can be grouped according to what they eat.
- understands that living things are part of a food chain.
- knows some characteristics of different environments and some plants and animals found there.

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- understands why living things must have food, water, shelter, and space to survive.
- understands that there are limited resources available for all living things to use.

The Nature of Science

- knows that scientific investigations generally work the same way in different places.
- understands the importance of accuracy and repetition in conducting scientific inquiries.
- works with others to complete an experiment or to solve a problem.
- listens, records, and compares the ideas and observations of others.
- uses simple graphs, pictures, written statements, and numbers to observe, describe, record, and compare data.
- uses a variety of tools (for example, thermometers, magnifiers, rulers, scales, computers) to identify characteristics of objects.
- uses standard (for example, centimeters) and nonstandard units (for example, paper clips, hands, pencils) to measure organisms and objects and parts of organisms and objects.
- uses information gathered to identify patterns in nature to make predictions (for example, shapes of leaves, petals on flowers, rings on seashells).
- knows that scientists and technologists use a variety of tools (e.g., thermometers, magnifiers, rulers, and scales) to obtain information in more detail and to make work easier.



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