

I/R/M

FIRST GRADE

Religious
Values

I. Life Science

A. Animals

1. Characteristics and changes in habitats
 - a. Identify that living things move by themselves, make new ones like themselves, interact with their environment, grow and change.
 - b. Classify and compare living and nonliving things.
 - c. Describe various habitats and the requirements for each.
 - d. Identify that living things need air, food, water and shelter.
 - e. Observe how living things are interdependent with their environment.
 - f. Observe the interactions of living things.
2. Life cycles/Growth
 - a. Classify animals according to their similarities and differences.
 - b. Observe and identify adaptive structures and behaviors that enable animals to survive in their environment.
 - c. Observe the life cycles, growth and stages of development of an animal.
 - d. Observe the feeding habits of animals and draw a food chain
 - e. Observe and discuss the effects of seasonal environmental changes on animals.

Respect for life
Stewardship

B. Plants

1. Characteristics and growth
 - a. Investigate and explain that plants require air, water, nutrients, space and light to survive and reproduce.
 - b. Identify that the basic characteristics of seeds and plants are growth, food making, structures, life cycles and reproduction.
 - c. Observe and record the sequence of changes in the life cycle of a plant; predict when seeds will germinate; record the growth of roots, stems, leaves, flowers and fruits.
 - d. Classify plants according to their similarities and differences in appearance, size, shape, growth pattern habitat, color and type of leaves.
 - e. Explore and compare methods of seed dispersal.
 - f. Observe and discuss the effect of seasonal environmental changes on plants.
2. Structures
 - a. Identify the parts of a plant as seeds, roots, stems, leaves, flower and fruit.
 - b. Identify the parts of a seed as seed coat, food storage and embryo.
 - c. Explore common fruits to find seeds.
 - d. Classify edible plant parts as seeds, roots, fruits, etc.

Respect for
God's creation
Stewardship
Awe and
wonder

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II. Physical Science

A. States of Matter

1. Solids

- I. a. Explore a number of solid objects.
- I. b. Describe and identify the common physical properties of solid materials as color, shape, hardness, size, texture, mass, and smell.
- I. c. Experience solid materials as pieces, grains and particles; combine and separate solid materials of different sizes.

2. Liquids

- I. a. Observe and record information about the properties of liquids.
- R. b. Investigate the appearance and behavior of liquids in containers of various sizes and shapes.

3. Gases

- I. a. Identify the characteristics of gases.
- I. b. Experiment with gases (e.g., in objects - plastic bags, smells in the air).

B. Properties of Matter

1. Changes in states of matter

- I. a. Compare the physical properties of solids, liquids and gas; classify materials and objects as solids, liquids or gases.
- I. b. Observe what happens when solids and water (liquid) are mixed; and water and other liquids are mixed.
- I. c. Identify that energy causes a change in matter and can cause an object to move.
- I. d. Describe and observe physical changes (e.g., melting an ice cube, freezing water, breaking objects into smaller parts) and chemical changes in matter (e.g., make butter).
- I. e. Identify that heat energy causes a change in matter.

2. Measuring Matter

- I. a. Observe, describe, compare and classify the common physical properties of matter as size, mass, shape, color and temperature.
- I. b. Measure length, mass, volume and temperature of various materials in nonstandard and standard units, (e.g., U.S. Customary and Metric).

C. Forces

1. Push and pull

- I. a. Define a force as a push or a pull.
- I. b. Describe that work is done when a force moves an object.
- I. c. Observe and identify forces (friction and gravity-weight) that slow down, stop or increase an object's motion.
- I. d. Demonstrate that the force of friction (e.g., rubbing two objects together or hitting a hammer on a nail) produces heat energy.
- I. e. Develop a growing curiosity and interest in the motion of objects in the world.

Awe and wonder

Respect for the proper use of physical elements

God's unfolding plan

Natural wonders

- I.
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- f. Observe objects in motion and describe what happens.
 - g. Identify that energy causes objects to move and that energy is used to do work
 - h. Show examples of simple machines (e.g., wheel, wedge, pulley, inclined plane, lever).

III. Earth Science

A. Sun, Moon and Stars

1. Properties

- I. a. Identify that the earth, moon, sun and stars are slightly irregular spheres.
- I. b. Compare day and night observations of the sun, moon, planets and stars.

2. Location

- I. a. Identify the sun, moon and stars in the sky.
- I. b. Model their relative positions in the sky.

3. Movement

- I. a. Demonstrate that the Earth rotates on its axis and show that the side of the Earth facing the sun is in daylight and the opposite side is dark.
- I. b. Demonstrate that the earth orbits the sun, while rotating on its axis.

B. Earth and Sky

1. Weather

- I. a. Identify wind as moving air and infer that air is all around us.
- I. b. Make a variety of wind catchers to observe the action and direction of wind.
- I. c. Demonstrate how clouds are formed in the atmosphere.
- I. d. Observe and draw the different shapes of clouds.
- R. e. Observe and record daily and seasonal weather changes.
- R. f. Describe and compare the different types of weather for a period of time.
- R. g. Observe, record and compare the changes in daily indoor and outdoor temperatures for a period of time.

2. Day and Night

- I. a. Demonstrate the Earth movements that make day and night.
- I. b. Observe and describe the differences between day and night.

3. Shadows

- I. a. Demonstrate what makes shadows.
- I. b. Describe how shadows change over a day's time.

Respect for life

Awe and wonder

Faith

Awe and wonder

God's unfolding plan

Grade 1

I. Inquiry

Process skills and inquiries are not an isolated unit of instruction and should be embedded throughout the content areas. Safety issues should be addressed as developmentally appropriate.

A. Process Skills

1. Observe
 - a. Use the senses to gather information about objects or events such as size, shape, color, texture, sound, position, and change (qualitative observations).
2. Classify
 - a. Compare, sort, and group concrete objects according to observable properties.
 - b. Arrange objects in sequential order.
3. Measure
 - a. Use standard (U.S. customary and metric) and nonstandard whole units to estimate and measure mass, length, volume, and temperature (quantitative observations).
4. Communicate
 - a. Use drawings, tables, graphs, written and oral language to describe objects and explain ideas and actions.

B. Inquiry

1. Plan and conduct a simple investigation.
 - a. Ask a question about objects, organisms, and events in the environment.
 - b. Employ simple equipment, such as hand lenses, thermometers, balances, etc., to gather data and extend the senses.