

# Science

Helping students gain skills in employing language, and using instruments, methods, and materials of science is essential to fostering scientific thinking. The stated science objectives are to be accomplished through instruction grounded in scientific skills and processes.

**Goal: Students will demonstrate acquisition and integration of basic scientific thinking processes while learning concepts of earth/space, life, chemistry, and physics by applying skills of observation, exploration, and discovery.**

**Science Objectives** - Students will demonstrate inquiry in scientific thinking to:

a. Ask questions and use senses to observe and explore materials and natural phenomena (WSS IV A I)(CS 1PK1) by:

## **Skills and Processes**

- Demonstrating curiosity about projects, discussions, and everyday activities (e.g., wondering where frost comes from that appears on windows) (CS1PK2)
- Identifying attributes and functions of objects (CS1PK 9)
- Matching, identifying, and copying patterns associated with the senses (CS1PK15)
- Making and identifying models of real objects (CS1PK22)
- Participating in scientific activities, projects, and discussions and inventing things (CS1PK 27)
- Asking relevant questions to seek ideas for new projects, activities, and discussions (CS 1.1PK2)
- [Placing common routines in chronological order (CS1.1PK1)]
- Explaining that people who investigate the world around us can answer scientific questions (CS1PK28)

## **Earth/Space Science**

- Recognizing that the sun gives light (CS2PK 2)
- Recognizing mountains and oceans as earth surface features (CS2PK1)
- Identifying that the weather changes some from day to day (CS2PK4)
- Identifying the sun, moon, and stars (CS2 PK 5)

## **Life Science**

- Observing a variety of plants and animals (CS3 PK 1)
- Identifying familiar animals and their offspring (CS3PK3)
- Identifying what people and familiar animals need to survive (CS3PK4)

## **Chemistry**

- Observing solids as they become liquids (e.g., ice cubes or snow at room temperature)
- Using senses to identify the similar and different properties of objects (e.g., using smell to distinguish juice from water or hearing to identify contents of a jar) (4PK 1)

## **Physics**

- Identifying the ways by which objects move (straight, round and round, back and forth, zig zag) (CS 5PK1)
- Identifying that the sun warms the land, air, and water (CS 5PK 2)
- Using objects to make sounds (e.g., drums, bells, their voices)(CS 5PK3)

- Identifying that light passes through some materials but not through others (CS5PK4)

b. Use simple tools and equipment for investigation (WSS IV A 2) by:

**Skills and Processes**

- Demonstrating safety when participating in an investigation or exploration (CS I PK5)
- Using numbers and units when counting or measuring objects and recording data (CS 1PK6)
- Identifying and using tools (assorted magnifying glasses, ruler, balance scale, cups, scoops, spoons, etc.) to observe and measure (CS1PK 23)
- Construct things with simple tools and a variety of materials (1PK24)
- Gathering data through the senses and reporting findings(CS 1PK7)

**Earth/Space Science**

- Describing the weather using observation and age-appropriate tools (2PK3)

c. Make comparisons among objects (WS IV A 3) by:

**Skills and Processes**

- Identifying similarities and differences of objects and materials (CS 1PK10)
- Matching, regrouping, and classifying objects according to attributes and functions (CS1PK11)
- Using observations, charts, or graphs (CS1PK8)

**Life Science**

- Identifying similarities and differences among plants and among animals (CD3PK2)
- Sorting objects by as living, non-living , or things that never lived

**Physics**

- Noting the difference in speed when an object is pushed over different surfaces (truck over tiles or rugs)
- Discussing the properties of objects that float in water and objects that sink