

SCIENCE - Grade 3

Christ Lutheran School, Costa Mesa, CA

Revised 2008

Goal: The students will develop an appreciation and understanding of God's creation while learning third grade content through hands-on scientific experimentation. They will keep a science notebook with questions, predictions, observations and conclusions.

Objectives:

Physical Science

1. The student will be able to explain the properties of matter and how it changes.
 - Matter comes in three different states: solid, liquid, and gas.
 - Matter can change state by melting, evaporating, and freezing.
 - Properties of matter can be described including color, size, weight, shape, texture, and odor.
 - Mixtures and solutions can be made by mixing different types of matter.
 - Some mixtures can be separated using sieves, filters, or evaporation.
 - Chemical changes involve the formation of a new type of matter, while in physical changes no new matter is formed.

Materials: Science and Technology for Children Kit: *Changes*, 1997

Life Science

1. Students will be able to observe and describe the life cycle of a plant.
 - Most plants need light, water, and soil to grow.
 - Plants have structures that help them survive including roots, stem, and leaves.
 - Seeds are the first stage in growth and contain food for the new plant.
 - Plants make food through the process of photosynthesis.
 - Flowers may depend on bees or other insects for pollination.
2. Students will classify animals into different groups and describe their habitat.

- Animals can be classified as mammal, amphibian, reptile, fish, or bird.
- An animal's habitat provides for its needs of food, water, air, and space.
- Animals have structures that serve in growth, protection, reproduction, etc.
- Animals can be found in a variety of ecosystems including deserts, forests, oceans, and fresh water.
- Some animals are extinct and can be studied by observing fossils.

Materials: *Harcourt Science (California Edition)*, Harcourt, Inc., 2000, STC Kit: *Plant Growth*

Earth Science

1. Students will demonstrate knowledge that objects in the sky move in regular and predictable patterns.

- The moon's appearance changes in a four-week lunar cycle.
- Day and night are caused by the rotation of the Earth.
- Seasons are caused by the tilt of earth's axis and its movement around the sun.
- Our solar system includes the sun and the planets and other objects that orbit it.
- The patterns of the stars stay the same although they "move" across the sky nightly.

Materials: *Harcourt Science (California Edition)*, Harcourt, Inc., 2000, Selected materials from *Space Hands on Elementary School Science* by Linda Poore, 2000, *Exploring Space*, Evan-Moor, 1998

Investigation and Experimentation

1. Students will use a variety of investigation methods to reinforce scientific knowledge.

- Create models.
- Differentiate evidence from opinion and state evidence and conclusions in scientific journals.
- Keep charts, graphs, and scientific drawings.
- Use numeric data to describe and compare objects.
- Describe objects using shape, color, texture, size, weight, and odor.

- Predict the outcome of a simple investigation and compare predictions with evidence.
- Collect data and come to a reasonable conclusion.