

SECOND GRADE

STANDARD 1: SCIENCE AS INQUIRY

The student will experience as *full inquiry*. In the elementary grades, students begin to develop the physical and intellectual abilities of scientific inquiry.

Benchmark 1: The student will be involved in activities that develop skills necessary to conduct scientific inquiries.

- 1:1:1 identifies *properties* of objects.
(states properties of objects such as leaves, shells, rocks, water, and insects.)
- 1:1:3 uses appropriate materials, *tools*, and safety procedures to collect information.
(uses tools such as magnifiers, balances, scales, thermometers, and measuring cups when engaged in investigations.)
(uses appropriate precautions, procedures, and safety equipment when doing investigations.)
- 1:1:4 asks and answers questions about objects, organisms, and events in his/her environment.
(observes and asks questions about a variety of objects and discusses how they are alike and different.)
- 1:1:5 describes an observation orally or pictorially.
(draws pictures of plant growth on a daily basis; notes color, number of leaves; labels plant parts.)

STANDARD 2: PHYSICAL SCIENCE

The student will explore the world by observing and manipulating common objects and materials in their environment.

Benchmark 1: The student will develop skills to describe objects.

- 2:1:1 observes properties of objects and measures or describes those properties using age-appropriate tools and materials.
(measures and compares mass, texture, and temperature of objects.)
- 2:1:2 separates or sorts a group of objects or materials by properties.
(compares and sorts objects by shape, size, mass, and color.)
- 2:1:3 compares solids and liquids.
(compares the *properties* of liquid water and frozen water, or liquid (melted) chocolate chips and solid chocolate chips.)

STANDARD 3: LIFE SCIENCE

The student will begin to develop an understanding of biological concepts.

Benchmark 1: The student will develop an understanding of the characteristics of living things.

3:1:1 discusses the *organisms* live only in *environments* in which their needs can be met.

(learns that plants need light, air, and water.)

3:2:1 observes *life* cycles of different living things.

(observes the *life* cycles of plants.)

3:1:3 observes living things in various *environments*.

(observes classroom plants, takes nature walks and field trips in his/her own area; observes terrariums and aquariums.)

3:1:4 examines the *structures*/parts of living things.

(plants have roots, leaves and flowers.)

STANDARD 4: EARTH AND SPACE SCIENCE

The student will observe closely the objects and materials in their *environment*.

Benchmark 1: The student will describe *properties of earth materials*.

4:1:1 observes, compares, and sorts *earth materials*.

(describes and compares soils by color and texture; sorts pebbles and rocks by size, shape, and color.)

Benchmark 3: The student will describe changes in weather.

4:3:3 discusses weather safety procedures.

(practices tornado drill procedures; talks about the dangers of lightning and flooding.)

STANDARD 5: SCIENCE AND TECHNOLOGY

The student will have variety of educational experiences the involve science and *technology*.

Benchmark 1: The student will use *technology* to learn about the world around them.

5:1:1 explores the way things work.

(observes the inner workings of age-appropriate toys, wind-up clocks, music boxes, and other mechanical devices.)

- 5:1:2 experiences science through *technology*.
(uses *tools* such as thermometers, hand lenses, bug viewers, and science software programs.)

STANDARD 6: SCIENCE IN PERSONAL AND ENVIRONMENTAL PERSPECTIVES

The student will have a variety of experiences that provide understanding for various science-related personal and environmental challenges.

Benchmark 1: The student will demonstrate responsibility for their own health.

- 6:1:1 engages in personal care.
(practices washing hands, brushing teeth, and engaging in exercise, discusses personal hygiene.)
- 6:1:2 discusses healthy foods.
(explores real fruits and vegetables for textures, tastes, and health value, and/or cuts out pictures of foods and sorts into healthy and not healthy groups.)
- 6:1:3 discusses that humans need to practice being safe.
(discusses the need to obey traffic signals, use crosswalks, and the danger of talking to strangers.)

STANDARD 7: HISTORY AND NATURE OF SCIENCE

The student will experience scientific inquiry and learn about people from history.

Benchmark 1: The student will know they practice science.

- 7:1:1 is involved in explorations that make his/her mind wonder and know that he/she is practicing science.
(observes and tells (reports) what happens when you place a banana or an orange (with and without the skin) or a crayon in water.)
- 7:1:2 uses *technology* to learn about people in science.
(reads short stories and views films or videos; listens to guest speakers who are involved with science.)