

## Science 4<sup>th</sup> Grade

Fourth grade Science curriculum covers Life Science, Earth Science, and Physical Science. Science and Social Studies/Idaho History are alternated in blocks during the year. This works out to one semester total for each. Science is studied about 200 minutes per week when it is being studied.

Text: Harcourt Science, Harcourt 2000

### I. Life Science

- A. Classifying Living Things
  - 1. Identify why scientists classify
  - 2. Identify the five kingdoms
  - 3. Recognize how scientists name living things
- B. How Animals are Classified
  - 1. Identify two main groups of animals
  - 2. Describe how vertebrates and invertebrates differ
  - 3. Give examples
- C. How Plants are Classified
  - 1. Describe two main groups of plants
  - 2. Give examples of vascular and nonvascular plants
- D. What Plants Need to Live
  - 1. Identify four basic need of plants
  - 2. Explain how plants make food
  - 3. Give examples of plant adaptations
  - 4. Explain how different adaptations help plants survive in different environments
- E. How Leaves, Stems, and Roots help Plants Live
  - 1. Identify ways leaves, stems, and roots help plants live
  - 2. Give examples of unusual plant adaptations

## **II. Earth Science**

- A. Layers of the Earth
  - 1. Recognize and describe the layers of Earth
  - 2. Describe how slabs of Earth's crust and upper mantle move
- B. Causes of Earthquakes
  - 1. Explain causes
  - 2. Describe where earthquakes occur
  - 3. Explain various ways to measure earthquakes
- C. Minerals
  - 1. Collect information about minerals using observational skills
  - 2. Describe properties of minerals
  - 3. Explain how minerals form and how they are used
- D. Rocks
  - 1. Differentiate among different kinds of rocks
  - 2. Describe relationship between rocks and minerals
  - 3. Explain how different rocks form
  - 4. Give example of sedimentary, igneous, and metamorphic rocks
- E. Rock Cycle
  - 1. Observe patterns of change in Earth's rocks
  - 2. Describe processes involved in rock cycle
  - 3. Identify effects of erosion, dissolving, and weathering, which take place over time
- F. Fossils
  - 1. Analyze scientific explanation of how fossils form, using scientific evidence
  - 2. Describe steps involved in fossil formation
  - 3. Compare and contrast various methods of fossil preservation

### **III. Physical Science**

#### **A. Motion**

1. Identify ways to describe motion
2. Define frame of reference and relative motion
3. Calculate speed using data of distance and time

#### **B. Effects Forces have on Objects**

1. Define forces
2. Demonstrate how forces are added and subtracted
3. Measure forces using a spring scale

#### **C. Forces in Nature**

1. Recognize relationship between gravity and weight
2. Identify parts of an atom
3. Give examples of different kinds of natural forces

#### **D. How Levers Help us Do Work**

1. Identify parts of a lever
2. Draw conclusions about what happens when a lever is moved

#### **E. How a Pulley and Wheel and Axle Help us Do Work**

1. Identify parts of wheel and axle and different types of pulleys
2. Draw conclusions about what happens when size of wheel or axle is changed