

**First Grade Standards**

**Science**

**Course Overview:** In Grade 1, instructional time will focus on four critical areas: (1) plants; (2) growing and changing in living and nonliving things; (3) sound and light; and (4) weather.

**Unit 1: Plants (4 weeks suggested 30 minutes – 2 times per week)**

**Description:** In this unit, students discover that plants vary in size and shape but that all plants have similar parts and needs. Students also learn that many of the items they use every day actually come from plants.

**Standards**

1. The students will classify trees using tree differences such as habitats, parts, and shapes. F.4.1
2. The students will identify tree roots, leaves, trunk, and branches and explain the function of tree parts. F.4.2
3. The students will differentiate types of trees and the different environments of trees. F.4.2
4. The students will identify and group tree leaves and seeds according to different species of trees. F.4.3
5. The students will determine tree age. F.4.3
6. The students will identify the main parts of plants. F.4.2
7. The students will explain the specific function of plant parts.F.4.3
8. The students will describe the needs of plants such as sunlight, air, and water. F.4.1
9. The students will give examples of the purposes and products of plants. D.4.1

**Unit 2: Growing and Changing (4 weeks suggested 30 minutes – 2 times per week)**

**Description:** In this unit, students discover that living things grow and change. These changes affect size and appearance as well as behavior. Students also learn that the things people do cause other changes on the earth.

**Standards**

1. The students will observe and record physical changes they have gone through since they were born. F.4.3
2. The students will identify how they change – physically, mentally, and behaviorally, over a one-year period. F.4.3
3. The students will explain four things that are important to growing up healthy – exercise, nutrition, rest, and cleanliness. F.4.2
4. The students will learn function of the food tube, the stomach, and the small intestine in digestion. F.4.1
5. The students will explore that animals grow and change. F.4.3
6. The students will discover that animals need food, water, air, and shelter to grow. F.4.1
7. The students will discover that insects go through stages as they grow. F.4.3
8. The students will describe other animals that hatch from eggs. F.4.3
9. The students will explain that some animals grow inside the mother until they are born and how these young change after birth. F.4.3
10. The students will describe ways people change the water by usage. F.4.4
11. The students will give examples of waste and the end result on the environment. F.4.4
12. The students will describe ways to reduce, reuse, and recycle. F.4.4

**Unit 3: Sound and Light (4 weeks suggested 30 minutes – 2 times per week)**

**Description:** In this unit, students discover some basic principles of sound and light. Students also learn how the structure of our ears and eyes enables us to hear sounds and see light.

**Standards**

1. The students will compare and contrast different sounds. D.4.8
2. The students will investigate how to change sounds. D.4.8
3. The students will describe the parts of the ear that enable people to hear. D.4.8
4. The students will explain that light is necessary to be able to see. D.4.8
5. The students will describe the parts of the eye and the brain that enable people to see. D.4.4
6. The students will investigate how light changes the pupils of their eyes. D.4.8
7. The students will explore how sound is made when an object vibrates. D.4.8
8. The students will describe how sound travels through a solid, a liquid, and a gas. D.4.8
9. The students will determine that light travels in a straight line. D.4.8
10. The students will discover how light travels through transparent and translucent objects. D.4.8
11. The students will describe that shadows form as light cannot go through or bend around opaque objects. D.4.8
12. The students will observe that objects can look different in some mirrors and when viewed through water and glass lenses. D.4.8
13. The students will explore how white light can be separated into the colors of the rainbow when it passes through water or a prism. D.4.8

**Unit 4: Weather (4 weeks suggested 30 minutes – 2 times per week)**

**Description:** In this unit, students discover that weather conditions change and that they can be measured. Children also learn how the air, water, and sunlight interact to move water through the environment.

**Standards**

1. The students will use prior knowledge to describe weather conditions. E.4.5
2. The students will explain that weather is constantly changing. E.4.5
3. The students will determine that air temperature can be measured by a thermometer and how to use a thermometer to measure temperature. E.4.5
4. The students will understand that moving air is called wind and how wind intensity can be observed. E.4.5
5. The students will explain how to measure rainfall using a rain gauge. E.4.5
6. The students will describe weather conditions and can precede and accompany a thunderstorm. E.4.5
7. The students will understand that air contains water. E.4.5
8. The students will explore how water vapor condenses to form liquid water. E.4.5
9. The students will discover that water gets into the air by the process of evaporation. E.4.5
10. The students will describe how when water evaporates, it becomes water vapor and forms clouds. E.4.5
11. The students will describe different types of clouds including their shapes and the type of weather it contains. E.4.5