

## Grade Band Theme: Observations of the Environment

*This theme focuses on helping students develop the skills for systematic discovery to understand the science of the physical world around them in greater depth by using scientific inquiry.*

### Earth and Space Science (ESS)

#### Topic: Sun, Energy and Weather

This topic focuses on the sun as a source of energy and energy changes that occur to land, air and water.

#### Content Statements

- The sun is the principal source of energy.
  - Sunlight warms Earth's land, air and water. The amount of exposure to sunlight affects the amount of warming or cooling of air, water and land.
  - The physical properties of water can change. These changes occur due to changing energy. Water can change from a liquid to a solid to a liquid. Weather observations can be used to examine the property changes of water.

### Physical Science (PS)

#### Topic: Motion and Materials

This topic focuses on the changes in properties that occur in objects and materials. Changes of position of an object are a result of pushing or pulling.

#### Content Statements

- Properties of objects and materials can change.
  - Objects and materials change when exposed to various conditions, such as heating or freezing. Not all materials can change the same way.

## Science Grade 1

- Objects can be moved in a variety of ways, such as straight, zigzag, circular, and back and forth.
  - The position of an object can be described by locating it relative to another object or to the object's surroundings.
  - An object is in motion when its position is changing.
  - The motion of an object can be affected by pushing or pulling. A push or pull is a force that can make an object move faster, slower or go in a different direction.

### Life Science (LS)

#### Topic: Basic Needs of Living Things

This topic focuses on the physical needs of living things in Ohio. Energy from the sun or food, nutrients, water, shelter and air are some of the physical needs of living things.

#### Content Statements

- Living things have basic needs, which are met by obtaining materials from the physical environment.
  - Living things require energy, water and a particular range of temperatures in their environments.
  - Plants get energy from sunlight. Animals get energy from plants and other animals.
  - Living things acquire resources from the living and nonliving components of the environment.
- Living things survive only in environments that meet their needs.
  - Resources are necessary to meet the needs of an individual and populations of individuals. Living things interact with their physical environments as they meet those needs.
  - Effects of seasonal changes within the local environment directly impact the availability of resources.