

4th Grade Science Content Standards

UNIT: Electricity, Heat and Matter (Physical Science)

This focuses on the conservation of matter and the processes of energy transfer and transformation, especially as they apply to heat and electrical energy.

Content Statements:

1. The total amount of matter is conserved when it undergoes a change.

Further explanation:

When an object is broken into smaller pieces, when a solid is dissolved in a liquid or when matter changes state (solid, liquid, gas), the total amount of matter remains constant.

2. Energy can be transformed from one form to another or can be transformed from one location to another.

Further explanation:

- *Energy transfers from hot objects to cold objects as heat, resulting in a temperature change.*
- *Electric circuits require a complete loop of conducting materials through which an electrical energy can be transferred.*
- *Electrical energy in circuits can be transformed to other forms of energy, including light, heat, sound, and motion.*
- *Electricity and magnetism are closely related.*

UNIT: Earth's living History (Life Science)

This topic focuses on using fossil evidence and living organisms to observe that suitable habitats depend upon a combination of biotic (living) and abiotic (non-living) factors.

Content Statement:

1. Changes in an organism's environment are sometimes beneficial to its survival and sometimes harmful.

Further explanation:

Ecosystems can change gradually or dramatically. When the environment changes, some plants and animals survive and reproduce and others die or move to new locations. An animal's patterns of behavior are related to the environment. This includes the kinds and numbers of other organisms present, the availability of food and resources, and the physical attributes of the environment.