

## Life Science Focus

**Guiding Question:** How do matter and energy flow through ecosystems?

**Content Standards:**

**Organisms can survive and reproduce only in environments that meet their basic needs.**

**Plants and animals have features that help them live in different environments.**

Benchmark/Expected Performance	Unit	Materials	Field trips/ Outdoor Ed
<i>Students will:</i>			
1. Distinguish among living, once-living and non-living things 2. Describe how a variety of organisms, such as producers, consumers, and decomposers, obtain their basic needs 3. Recognize that individuals of the same species may differ in some characteristics, and sometimes the differences give individuals an advantage in surviving and reproducing 4. Describe the life cycle of familiar organisms 5. Explain how organisms interact with other organisms in different environments (food webs, food chains)	Forest or Pond Ecosystems	Teacher materials  Videos	Long Hill Estate Bronx Zoo Owl Pellets

## Physical Science Focus

**Guiding Question:** How does the structure of matter affect the properties and uses of materials?

**Content Standards:**

**Materials have properties that can be identified and described through the use of simple tests.**

**Heating and cooling cause changes in some of the properties of materials.**

Benchmark/Expected Performance	Unit	Materials	Field trips/ Outdoor Ed
<i>Students will:</i>			
1. Sort and classify materials based on properties such as dissolving in water, sinking and floating. 2. Describe the effect of heating and cooling on the melting, evaporation, condensation and freezing of water. 3. Describe the physical properties of rocks and relate them to their potential uses. 4. Relate the properties of rocks to the possible environmental conditions during their formation.	Physical Properties	Kit Videos	Eli Whitney (Structure of Matter)

## Earth/Space Focus

**Guiding Question:** How do external and internal sources of energy affect the Earth's systems?

**Content Standards:**

**Water has a major role in shaping the Earth's surface.**

**Water circulates through the Earth's crust, oceans and atmosphere.**

Benchmark/Expected Performance	Unit	Materials	Field trips/ Outdoor Ed
<i>Students will:</i>			
1. Know that water has an important role in shaping the land on Earth 2. Know that soil is a composite of weathered materials and organic matter at the Earth's surface 3. Define erosion and deposition 4. Recognize, diagram, and describe the water cycle 5. Understand the effect of the water cycle on the shape of the land 6. Know how the flow of water and the slope of the land affect erosion and deposition 7. Know how rivers and tributaries act as a system that drains the land 8. Know how landforms result from the action of flowing water 9. Know the effect of humans on erosion and deposition	The Interactions of Land and Water	Land and Water Videos	Lake Beseck Allyn Brook Park
10. Know how hills, rocks, plants and dams affect the direction and flow of water			

11. Recognize that humans can attempt to control and affect the interactions between land and water 12. Describe how the sun's energy impacts the water cycle.			
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