

Merry Lea Environmental Learning Center of Goshen College

Standards Correlations Exploring Nature K - 5th

Program Synopsis

Students explore seasons as spring wakes up around them! Get out on the trails and investigate adaptations, the diversity of life and ecosystem interactions. Dip for pond creatures, play concept-reinforcing games and experience spring in Indiana.

Indiana Academic Standards for Science

Kindergarten

Plan and conduct an investigation using all senses to describe and classify differ- ent kinds of objects by their composition and physical properties. Explain these choices to others and generate questions about the objects.
Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
Describe and compare the growth and development of common living plants and animals.
Describe and compare the physical features of common living plants and animals.
Use observations to describe patterns of what plants and animals (including hu- mans) need to survive.

1st Grade

- **1.LS.1** Develop representations to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- **1.LS.3** Make observations of plants and animals to compare the diversity of life in different habitats.

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2nd Grade

- **2.PS.1** Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.
- **2.LS.1** Determine patterns and behavior (adaptations) of parents and offspring which help offspring to survive.
- **2.LS.2** Compare and contrast details of body plans and structures within the life cycles of plants and animals.
- **2.LS.3** Classify living organisms according to variations in specific physical features (i.e. body coverings, appendages) and describe how those features may provide an advantage for survival in different environments.

3rd Grade

- **3.LS.2** Plan and conduct an investigation to determine the basic needs of plants to grow, develop and reproduce.
- **3.LS.3** Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction.
- **3.LS.4** Construct an argument that some animals form groups that help members survive.

4th Grade

- **4.LS.1** Observe, analyze and interpret how offspring are very much, but not exactly, like their parents or one another. Describe how these differences in physical characteristics among individuals in a population may be advantageous for survival and reproduction.
- **4.LS.2** Use evidence to support the explanation that a change in the environment may result in a plant or animal will survive and reproduce, move to a new location, or die.
- **4.LS.3** Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior and reproduction in different ecosystems.

5th Grade

- **5.LS.2** Observe and classify common Indiana organisms as producers, consumers, decomposers, or predator and prey based on their relationships and interactions with other organisms in their ecosystem.
- **5.LS.3** Use a model to describe that animals receive different types of information through their senses, process the information in their brain, and respond to the information in different ways.

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Indiana Environmental Literacy Guidelines

for up to 4th Grade

Questioning, Analysis and Interpretation

Design simple investigations for both classroom and outdoor settings to help answer their questions. Their investigations will include making predictions, developing a hypothesis, making observations and drawing conclusions. Develop questions that help them learn about organisms, objects, places and relationships in the local environment, especially in nearby outdoor areas with which students have a personal connection. Locate and collect information about the environment and environmental topics by using tools, maps, technology and basic field skills (observing, interviewing, measuring).

Knowledge of Environmental Process and Systems

Define a healthy ecosystem and list the components of one.

Be able to tell the difference between and give examples of natural, human influenced and human-built ecosystems in Indiana. Identify possible causes of natural and human-made pollution.

Skills for Understanding and Addressing Environmental Issues

Identify environmental problems and issues in local environments and communities. Design a simple field investigation to explore questions about an environmental issue. Identify and evaluate proposed solutions to an environmental issue and determine what types of citizen action are appropriate.

Personal and Community Action

Connect with their local environment through a variety of positive outdoor experiences. Understand how their civic responsibilities promote personal actions that support their environment. Help create simple but effective plans and take successful actions that will have positive consequences for their local environment.

Document prepared by Merry Lea according to current <u>Indiana Academic Standards</u> from the Indiana Department of Education website and according to <u>Indiana Environmental Literacy Guidelines</u> from the Environmental Education Association of Indiana.