



# 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

- ETS1.A** | **Defining and Delimiting an Engineering Problem:** A situation that people want to change or create can be approached as a problem to be solved through engineering. Such problems may have many acceptable solutions. (K-2-ETS1-1) (secondary to K-PS2-2)
- ESS3.A** | **Natural Resources:** Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)
- LS1.C** | **Organization for Matter and Energy Flow in Organisms:** All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow. (K-LS1-1)

#### 1st Grade

- LS1.A** | **Structure and Function:** All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow. (1-LS1-1)
- LS1.B** | **Growth and Development of Organisms:** Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive. (1-LS1-2)
- LS3.B** | **Variation of Traits:** Individuals of the same kind of plant or animal are recognizable as similar but can also vary in many ways. (1-LS3-1)
- LS3.A** | **Inheritance of Traits:** Young animals are very much, but not exactly, like their parents. Plants also are very much, but not exactly, like their parents. (1-LS3-1)

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## 2nd Grade

- LS2.A** | **Interdependent Relationships in Ecosystems:** Plants depend on water and light to grow. (2-LS2-1)
- LS4.D** | **Biodiversity and Humans:** There are many different kinds of living things in any area, and they exist in different places on land and in water. (2-LS4-1)
- ESS2.C** | **The Roles of Water in Earth's Surface Processes:** Water is found in the ocean, rivers, lakes, and ponds. Water exists as solid ice and in liquid form. (2-ESS2-3)

## 3rd Grade

- LS1.B** | **Growth and Development of Organisms:** Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles. (3-LS1-1)
- LS4.C** | **Adaptation:** For any particular environment, some kinds of organisms survive well, some survive less well, and some cannot survive at all. (3-LS4-3)
- LS2.C** | **Ecosystem Dynamics, Functioning, and Resilience:** When the environment changes in ways that affect a place's physical characteristics, temperature, or availability of resources, some organisms survive and reproduce, others move to new locations, yet others move into the transformed environment, and some die. (secondary to 3-LS4-4)

## 4th Grade

- LS1.A** | **Structure and Function:** Plants and animals have both internal and external structures that serve various functions in growth, survival, behavior, and reproduction. (4-LS1-1)

## 5th Grade

- LS2.A** | **Interdependent Relationships in Ecosystems:** The food of almost any kind of animal can be traced back to plants. Organisms are related in food webs in which some animals eat plants for food and other animals eat the animals that eat plants. Some organisms, such as fungi and bacteria, break down dead organisms (both plants or plants parts and animals) and therefore operate as "decomposers." Decomposition eventually restores (recycles) some materials back to the soil. Organisms can survive only in environments in which their particular needs are met. A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a relatively stable web of life. Newly introduced species can damage the balance of an ecosystem. (5-LS2-1)
- LS2.B** | **Cycles of Matter and Energy Transfer in Ecosystems:** Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gasses, and water, from the environment, and release waste matter (gas, liquid, or solid) back into the environment. (5-LS2-1)

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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 [Indiana Academic Standards](#) from the Indiana Department of Education website and according to [Indiana Environmental Literacy Guidelines](#) from the Environmental Education Association of Indiana.