



Standards Correlations

Winter Nature K - 5th

Program Synopsis

Enjoy the wonders of winter! Students explore how people, plants and animals cope with winter by using their senses in the wintry woods and meadows. Outdoors they search for signs of life and survival strategies used by native plants and animals. Indoors they warm up while engaging in fun and educational winter-themed activities.

Indiana Academic Standards for Science

Kindergarten

- ESS1.B** | **Earth and the Solar System:** Seasonal patterns of sunrise and sunset can be observed, described, and predicted. (1-ESS1-2)
- 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)
- PS3.B** | **Conservation of Energy and Energy Transfer:** Sunlight warms Earth's surface. (K-PS3-1), (K-PS3-2)

1st Grade

- 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)
- 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)

2nd Grade

- PS1.B** | **Chemical Reactions:** Heating or cooling a substance may cause changes that can be observed. Sometimes these changes are reversible, and sometimes they are not. (2-PS1-4)

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3rd Grade

- 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)
- LS2.D** | **Social Interactions and Group Behavior:** Being part of a group helps animals obtain food, defend themselves, and cope with changes. Groups may serve different functions and vary dramatically in size (Note: Moved from K-2). (3-LS2-1)
- 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)
- LS4.D** | **Biodiversity and Humans:** Populations live in a variety of habitats, and change in those habitats affects the organisms living there. (3-LS4-4)
- ESS2.D** | **Weather and Climate:** Climate describes a range of an area's typical weather conditions and the extent to which those conditions vary over years. (3-ESS2-2)

5th Grade

- ESS1.B** | **Earth and the Solar System:** The orbits of Earth around the sun and of the moon around Earth, together with the rotation of Earth about an axis between its North and South poles, cause observable patterns. These include day and night; daily changes in the length and direction of shadows; and different positions of the sun, moon, and stars at different times of the day, month, and year. (5-ESS1-2)
- LS1.C** | **Organization for Matter and Energy Flow in Organisms:** Food provides animals with the materials they need for body repair and growth and the energy they need to maintain body warmth and for motion. (secondary to 5-PS3-1)
- 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)
- 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)

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Indiana Environmental Literacy Guidelines

for up to 8th 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.

Design focused environmental investigations using appropriate measurements, observations and tools.

Knowledge of Environmental Process and Systems

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

Give examples of how different organisms adapt to changes in their habitat.

Explain biodiversity and describe major ecosystems of Indiana.

Skills for Understanding and Addressing Environmental Issues

Identify different forms of action that citizens can take: actions in the economic, political, and legal spheres; actions designed to directly improve or maintain the environment; or actions that persuade others to take action.

Analyze the effects decisions, policies, and actions taken by individuals and groups on a particular issue have had on the elements, systems and processes of the environment.

Articulate and justify their own views on an issue based on information from a variety of credible sources and logical deduction.

Personal and Community Action

Develop a sense of place and understand their unique position in the global environment.

Create and put into action a personal plan for themselves and their families for effective environmental stewardship.

Understand how their civic responsibilities promote personal actions that support their 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.