

Merry Lea Environmental Learning Center of Goshen College

Standards Correlations Trees are Terrific! K - 5th

Program Synopsis

The marvelous world of trees is diverse in function, characteristics, and uses. Students explore trees' anatomy and physiology, life cycles, identifications, and roles within different ecosystems. Examine leaves, seeds, buds and more as students hike among the trees, compare and contrast living tree examples, and participate in trail-based activities designed to spark curiosity and learning - all about trees!

Indiana Academic Standards for Science

Kindergarten

- 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)

2nd Grade

- LS2.A
 - Interdependent Relationships in Ecosystems: Plants depend on water and light to grow. (2-LS2-1)
 - Interdependent Relationships in Ecosystems: Plants depend on animals for pollination or to move their seeds around. (2-LS2-2)

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LS2.A



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)

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

LS1.C Organization for Matter and Energy Flow in Organisms: Plants acquire their material for growth chiefly from air and water. (5-LS1-1)

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. Develop and communicate simple explanations that address their questions.

Knowledge of Environmental Process and Systems

List sources of energy, and be able to tell the difference between renewable and non-renewable sources. Describe and give examples of natural resources; e.g., water, minerals, soils, air, etc. Define a healthy ecosytem and list the components of one.

Skills for Understanding and Addressing Environmental Issues

Identify sources of information on an environmental issue or problem and evaluate the reliability of the sources. Identify environmental problems and issues in local environments and communities. Describe how their own actions and those of others have affected an issue.

Personal and Community Action

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

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.