

# 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

- K.PS.1 Plan and conduct an investigation using all senses to describe and classify different kinds of objects by their composition and physical properties. Explain these choices to others and generate questions about the objects.
- K.ESS.4 Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- **K.LS.1** Describe and compare the growth and development of common living plants and animals.
- K.LS.2 Describe and compare the physical features of common living plants and animals
- **K.LS.3** Use observations to describe patterns of what plants and animals (including humans) 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.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.1 Analyze evidence that plants and animals have traits inherited from parents and that variation of these traits exists in a group of similar organisms.
- 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.

#### 4th Grade

- 4.ESS.4 Develop solutions that could be implemented to reduce the impact of humans on the natural environment and the natural environment on humans.
- 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.



## **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 ecosystem 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.