

Listed below are the Wisconsin learning standards correlations for the LEAF lessons in the 2-3 grade lesson guide. On the following pages, you will find the standards listed by lesson along with a brief explanation of how they are addressed by each lesson.

## **LESSON 1: TO BE A TREE**

### **WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES**

Students classify trees as perennial plants with a trunk, crown, and roots; recognize basic characteristics of trees that can be used in identification; summarize the life stages of a tree; explain how trees need nutrients, sunlight, space, air and water.

**Related Standards/Learning Priorities:** NR1.a; NR1.b; PS1.a; PS1.b; PS1.c; PS2.a

### **WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY**

**Connect;** ELS.C1.C.i

Students identify and classify trees based on their characteristics.

**Explore;** ELS.EX2.A.e

Students identify and name the parts of a tree.

**Explore;** ELS.EX2.A.i

Students analyze a tree (system) and break it down into its component parts.

**Explore;** ELS.EX4.A.e

Students recognize that, like animals, trees need nutrients, energy and water to grow and function, which they get from their environment.

**Engage;** ELS.EN6.A.i

Students make connections between the parts of a tree to identify how the tree (system) works.

### **WISCONSIN STANDARDS FOR ENGLISH LANGUAGE ARTS**

**Writing;** W.2.2

Students create a drawing and write a paragraph to demonstrate their understanding of tree vocabulary and natural processes.

**Writing;** W.3.2

Students create a drawing and write a paragraph to demonstrate their understanding of tree vocabulary and natural processes.

### **NEXT GENERATION SCIENCE STANDARDS**

**Interdependent Relationships in Ecosystems;** 2-LS2-1

Students simulate the need of water, nutrients, and sunlight by trees.

**Inheritance and Variation of Traits: Life Cycles and Traits;** 3-LS1-1

Students use correct terms to identify the life stages of a tree by completing Student Page – *Life Stages*.

## WISCONSIN'S MODEL ACADEMIC STANDARDS FOR ART AND DESIGN

### Visual Communication and Expression; E.4.4

By drawing a tree and its parts, students communicate about the type of tree they have adopted and its features.

### Visual Thinking; H.4.1

Through the examination of leaf patterns, branches, bark, and fruit of trees, students learn unique characteristics used to identify trees.

## **LESSON 2: WHAT MAKES A FOREST?**

## WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES

Students explain how living things in a forest depend on nonliving things; recognize that all forests do not contain the same plants and animals.

**Related Standards/Learning Priorities:** NR1.a; NR1.b; NR2.b; NR2.c; NR2.d; PS1.a; PS1.b; PS1.c; PS1.d; PS2.a; PS4.a

## WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY

### Connect; ELS.C1.B.e

Students identify the natural and cultural parts of a classroom, school and forest community.

### Explore; ELS.EX2.A.e

Students identify the living and nonliving parts of a forest ecosystem and explore how they are connected to each other.

### Explore; ELS.EX2.A.i

Students analyze a forest ecosystem and break it down into its living and nonliving components.

### Explore; ELS.EX2.B.e

Students identify how the living and nonliving parts of a forest ecosystem are important to each other.

### Explore; ELS.EX2.B.i

Students explain how the living and nonliving components of a forest ecosystem affect the survival of organisms.

### Explore; ELS.EX3.B.e

Students discover that the types of consumers found in a forest ecosystem depend on the producers that are found there.

### Explore; ELS.EX3.B.i

Students explore the connection between soil type and types of tree growing in different areas of Wisconsin, then explore the diversity in wildlife supported by different forests.

**Explore; ELS.EX4.A.i**

Students are introduced to nutrient cycling within forest ecosystems.

**Explore; ELS.EX5.B.e**

Students identify how the plants and animals of an area depend on the nutrients and water supplied by a natural system.

**Explore; ELS.EX5.B.i**

Students describe how changes in a natural system can change the composition of living things in the system.

## **WISCONSIN STANDARDS FOR ENGLISH LANGUAGE ARTS**

**Reading for Information; RI-2.3**

Students determine which habitats meet the criteria for each tree species.

**Writing; W-2.3**

Students create a skit demonstrating their understanding.

**Speaking and Listening; SL-2.1**

Students create a skit demonstrating understanding.

**Speaking and Listening; SL-3.4**

Students create a skit demonstrating understanding.

## **NEXT GENERATION SCIENCE STANDARDS**

**Interdependent Relationships in Ecosystems; 2-LS4-1**

Students decide which forest habitats contain the correct nonliving factors for various tree species.

## **WISCONSIN'S MODEL ACADEMIC STANDARDS FOR ART AND DESIGN**

**Visual Thinking; H.4.1**

Students explore and illustrate different forest ecosystems in the mural they create.

**Making Connections; K.4.3**

Students create a mural about a forest ecosystem that they have learned about.

## **LESSON 3: FOREST ENERGY FLOW**

### **WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES**

Students identify trees as solar collectors and energy fixers; draw the transfer of energy within the forest and identify producers (plants), consumers (herbivores and carnivores), and decomposers (fungi, bacteria, etc.).

Related Standards/Learning Priorities: NR2.b; NR2.d; PS1.c; PS1.d; PS2.a

## WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY & SUSTAINABILITY

### Explore; ELS.EX2.A.e

Students identify and name the parts of a forest ecosystem's food web.

### Explore; ELS.EX2.A.i

Students identify the food webs (nested systems) within a forest ecosystem (system)

### Explore; ELS.EX2.B.i

Students recognize how organisms within a forest ecosystem depend on each other, and identify their functions within the ecosystem.

### Explore; ELS.EX3.B.e

Students identify that producers are the basis of forest food chains, and that a variety of producers is necessary to support the overall health of forest ecosystems.

### Explore; ELS.EX3.B.i

Students evaluate how the balance of producers, consumers and decomposers in an ecosystem influences the quality of a forest ecosystem.

### Explore; ELS.EX4.A.e

Students explain how nutrients, energy and water move through forest ecosystems.

### Explore; ELS.EX4.A.i

Students illustrate the cycling of matter in a forest ecosystem.

### Explore; ELS.EX5.B.e

Students identify changes that take place in natural systems.

### Explore; ELS.EX5.B.i

Students describe how the living components of a forest ecosystem respond to changes in natural systems.

### Engage; ELS.EN6.A.i

Students make connections between the living and nonliving parts of a forest ecosystem to identify how matter cycles in the system.

## WISCONSIN STANDARDS FOR ENGLISH LANGUAGE ARTS

### Writing; W-2.3

Students create a comic strip to demonstrate their knowledge and tell a story of energy flow.

### Writing; W-3.3

Students create a comic strip to demonstrate their knowledge and tell a story of energy flow.

## NEXT GENERATION SCIENCE STANDARDS

### Interdependent Relationships in Ecosystems; 2-LS4-1

Students discuss the dependence of consumers on producers.

## WISCONSIN MODEL ACADEMIC STANDARDS FOR ART AND DESIGN

### Visual Communication and Expression; E.4.3

Students create a comic strip about the flow of energy.

## **LESSON 4: FORESTS ARE IMPORTANT TO ME!**

### WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES

Students identify reasons forests are important to people; list forest products that they use every day; identify places in Wisconsin where forest products are made.

Related Standards/Learning Priorities: NR1.a; NR1.b; NR2.c; NR3.a; PS1.c; PS3.e; PS4.e

### WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY

#### Connect; ELS.C1.A.e

Students identify how their community values forests.

#### Explore; ELS.EX2.C.e

Students identify ways that humans depend on forests for products and services they use every day.

#### Explore; ELS.EX2.C.i

Students investigate why we value forests.

#### Explore; ELS.EX3.C.e

Students identify that we use forests for a variety of sustainable benefits.

#### Explore; ELS.EX4.B.e

Students describe how forest resources are important to the health of Wisconsin citizens.

#### Explore; ELS.EX4.B.i

Students recognize that Wisconsin's forests provide resources that consumers demand, as well as jobs and income.

### WISCONSIN STANDARDS FOR ENGLISH LANGUAGE ARTS

#### Writing; W.2.2

Students write a paragraph explaining why forests are important to them.

#### Writing; W.3.2

Students write a paragraph explaining why forests are important to them.

### WISCONSIN STANDARDS FOR MATHEMATICS

#### Measurement and Data; 2.MD.10

Students build a bar graph and discuss how different values contributed to the graph.

## WISCONSIN MODEL ACADEMIC STANDARDS FOR SOCIAL STUDIES

### **Geography: People, Places, and Environments; A.4.2**

Students locate the towns and cities on a map where a certain forest product is made. (In Extension)

## WISCONSIN MODEL ACADEMIC STANDARDS FOR ART AND DESIGN

### **Visual Communication and Expression; E.4.4**

Students create a graph to visually show the variety of forest values people have.

## **LESSON 5: DECISIONS, DECISIONS**

## WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES

Students define forest management; identify some of the people who help manage forests.

**Related Standards/Learning Priorities:** NR2.b; NR2.c; NR2.d; NR3.a; PS2.a; PS3.b; PS3.d; PS3.e

## WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY

### **Connect; ELS.C1.D.e**

Students identify the physical and emotional benefits of forest recreation.

### **Explore; ELS.EX2.C.e**

Students identify ways that humans depend on forests for products and services they use every day.

### **Explore; ELS.EX2.C.i**

Students investigate ways our access to forest resources has shaped the ways we recreate.

### **Explore; ELS.EX3.C.e**

Students investigate how people work together to make decisions about shared forest resources.

### **Explore; ELS.EX4.B.e**

Students investigate how forest resources are important to the health and wellbeing of Wisconsin citizens.

### **Explore; ELS.EX5.A.e**

Students examine how to balance goals and make decisions about public forest uses.

### **Explore; ELS.EX5.A.i**

Students explore how our cultural views and goals influence the decisions we make about public forest uses.

**Explore; ELS.EX5.C.e**

Students identify that human uses can change forests.

**Explore; ELS.EX5.C.i**

Students learn the basic processes involved in forest management decisions.

**Explore; ELS.EN6.B.i**

Students explore civic and personal goals in managing forest systems.

**Engage; ELS.EN6.C.e**

Students recognize that Wisconsin's forests provide resources that consumers demand, as well as jobs and income.

## **NEXT GENERATION SCIENCE STANDARDS**

### **Earth's Systems: Processes That Shape the Earth; 2-ESS2-2**

Students map a schoolyard to determine the best use of the site. (In Extension, students map their own schoolyard.)

## **WISCONSIN MODEL ACADEMIC STANDARDS FOR SOCIAL STUDIES**

### **Geography: People, Places, and Environments A.4.4**

Throughout the lesson, students examine how different people are involved in the decisions made about the management of forest land.

### **Political Science and Citizenship: Power, Authority, Governance, and Responsibility; C.4.5**

Students play a card game to illustrate the different people who impact forests. Through this game, they see that citizens have a right and responsibility to participate by voting and voicing their opinion.

## **LESSON 6: I CAN BE A FOREST STEWARD**

### **WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES**

Students define the responsibilities of a forest steward; name choices a steward could make for our forests' future; identify how today's choices affect future forests.

**Related Standards/Learning Priorities: NR2.b; NR2.c; NR3.a**

### **WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY**

**Explore; ELS.EX3.C.e**

Students identify ways people can maintain the health of forests and other natural resources.

**Explore; ELS.EX3.C.i**

Students discuss “good” and “bad” decisions and how they affect forests and other natural resources.

**Explore; ELS.EX5.A.e**

Students identify how individual and group decisions can impact forests and other natural resources.

**Explore; ELS.EX5.A.i**

Students examine the impact of choices on forests and other natural resources.

**Explore; ELS.EX5.C.e**

Students identify how humans can change forests and other natural resources.

**Explore; ELS.EN6.B.e**

Students discuss what it means to be a forest steward.

**Explore; ELS.EN6.B.i**

Students analyze how personal decisions relate to forest stewardship.

**Engage; ELS.EN6.C.e**

Students describe the importance of forest stewardship.

## **WISCONSIN STANDARDS FOR ENGLISH LANGUAGE ARTS**

### **Writing; W.2.2**

In the Summative Assessment, students write about the forest stewardship.

### **Writing; W.3.2**

In the Summative Assessment, students write about the forest stewardship.

## **NEXT GENERATION SCIENCE STANDARDS**

### **Interdependent Relationships in Ecosystems; 3-LS4-4**

Students complete the “What if we...?” worksheet to express the changes they envision under different scenarios.

## **WISCONSIN MODEL ACADEMIC STANDARDS FOR ART AND DESIGN**

### **Visual Communication and Expression; E.4.4**

Students draw what they think forests will look like in the future if we do or don’t take the responsibility of being stewards.

### **Making Connections; K.4.3**

Through drawing, students visually describe what they know about the future of forests if humans are good stewards.

## **CAREERS EXPLORATION**

## **WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY**



Engage; [ELS.EN6.C.e](#)

Students learn about jobs related to forests and forestry.

## **FIELD ENHANCEMENT 1: I CAN BE A FORESTER**

### **WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES**

Students give examples of information that can be collected from a forest sample plot; explain that many professionals use information from forests.

**Related Standards/Learning Priorities:** [NR2.a](#); [NR2.b](#); [NR2.c](#); [NR2.d](#); [NR3.a](#); [PS1.a](#); [PS2.a](#); [PS3.b](#); [PS3.d](#); [PS3.e](#)

### **WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY**

**Connect;** [ELS.C1.C.i](#)

Students identify and classify trees based on their characteristics.

**Explore;** [ELS.EX3.C.e](#)

Students investigate how people make decisions about forest resources.

**Explore;** [ELS.EX5.C.e](#)

Students identify that human uses can change forests.

**Explore;** [ELS.EX5.C.i](#)

Students learn the basic processes involved in forest management decisions.

**Engage;** [ELS.EN6.C.e](#)

Students learn about the work of foresters.

### **WISCONSIN ACADEMIC STANDARDS FOR ART AND DESIGN**

**Visual Thinking;** [H.4.5](#)

Students read and complete diagrams during a scavenger hunt.

## **FIELD ENHANCEMENT 2: OBSERVING FOREST INTERACTIONS**

### **WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES**

Students list the two main parts of an ecosystem: living parts and nonliving parts; identify how living things interact with their nonliving environment; observe and draw parts of a forest.

**Related Standards/Learning Priorities:** [NR1.a](#); [NR1.b](#); [NR2.b](#); [NR2.c](#); [NR2.d](#); [PS1.a](#); [PS1.b](#); [PS1.c](#); [PS1.d](#); [PS2.a](#); [PS4.a](#)

## WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY AND SUSTAINABILITY

### **Connect; ELS.C1.B.e**

Students identify the natural and cultural parts of a forest community.

### **Connect; ELS.C1.C.i**

Students observe and ask questions about the components of a forest ecosystem.

### **Explore; ELS.EX2.A.e**

Students identify the living and nonliving parts of a forest ecosystem and explore how they are connected to each other.

### **Explore; ELS.EX2.A.i**

Students analyze a forest ecosystem and break it down into its living and nonliving components.

### **Explore; ELS.EX2.B.e**

Students identify how the living and nonliving parts of a forest ecosystem are important to each other.

### **Explore; ELS.EX2.B.i**

Students explain how the living and nonliving components of a forest ecosystem affect the survival of organisms.

### **Explore; ELS.EX5.B.i**

Students describe how changes in a natural system can change the composition of living things in the system.

## WISCONSIN ACADEMIC STANDARDS FOR ART AND DESIGN

### **Visual Thinking; H.4.1**

Students spend focused, individual time watching and studying the patterns in nature.

### **Making Connections; K.4.3**

Students draw as they observe the natural world.

## **FIELD ENHANCEMENT 3: FOREST ENERGY SCAVENGER HUNT**

## WISCONSIN STANDARDS FOR AGRICULTURE, FOOD AND NATURAL RESOURCES

Students classify organisms as producers, consumers, and decomposers; explain that energy flows through producers, consumers, or decomposers; identify trees as producers in a forest ecosystem.

**Related Standards/Learning Priorities:** NR2.b; NR2.d; PS1.c; PS1.d; PS2.a

## WISCONSIN STANDARDS FOR ENVIRONMENTAL LITERACY & SUSTAINABILITY

### **Connect; C1.C.i**

Students investigate forest food webs through sensory observation and active exploration outdoors.

### **Explore; ELS.EX2.A.e**

Students identify and name the parts of a forest ecosystem's food web.

### **Explore; ELS.EX2.A.i**

Students identify the food webs (nested systems) within a forest ecosystem (system).

### **Explore; ELS.EX2.B.i**

Students recognize how organisms within a forest ecosystem depend on each other, and identify their functions within the ecosystem.

### **Explore; ELS.EX3.B.e**

Students identify that producers are the basis of forest food chains, and that a variety of producers is necessary to support the overall health of forest ecosystems.

### **Explore; ELS.EX3.B.i**

Students evaluate how the balance of producers, consumers and decomposers in an ecosystem influences the quality of a forest ecosystem.

### **Explore; ELS.EX5.B.i**

Students describe how the living components of a forest ecosystem respond to changes in natural systems.

### **Engage; ELS.EN6.A.i**

Students make connections between the living and nonliving parts of a forest ecosystem to identify how matter cycles in the system.

## WISCONSIN MODEL ACADEMIC STANDARDS FOR ART AND DESIGN

### **Visual Communication and Expression; E.4.4**

By sketching three different leaf types, seed types, and crown shapes, students communicate about the variety that exists in nature.

### **Visual Thinking; H.4.1**

Students study and observe differences in the patterns of leaves, seeds, and crown shapes.