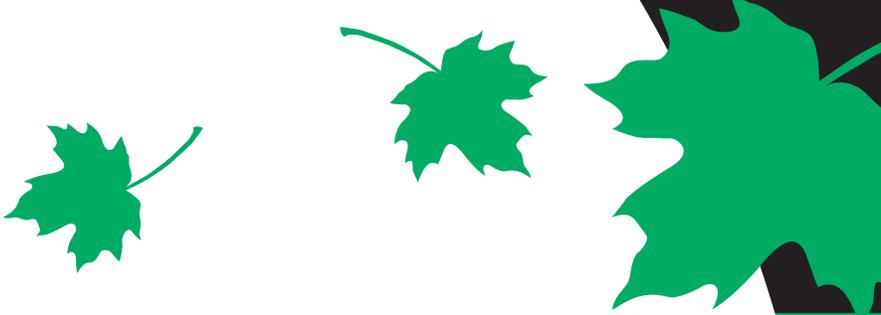




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## GLOSSARY

**ABANDON:** To leave behind or give up.

**AERIAL PHOTOGRAPHS:** Photographs taken from an airplane looking directly down at the ground below.

**ARCHEOLOGICAL TECHNICIAN:** A person who helps archaeologists find and learn about objects from people who lived long ago.

**ASSISTANT SAWMILL SUPERVISOR:** A person who helps supervise the people who make and sort lumber in a sawmill.

**BOARD FOOT:** A volume of lumber equal to 144 cubic inches (i.e., 12" X 12" X 1").

**BUCKER:** The person whose job is to cut the tree trunk into logs.

**BUSINESS OWNER:** A person who sells things to make a profit.

**CIVILIAN CONSERVATION CORPS:** A program during the Depression that provided jobs for men out of work and that worked on projects to improve our forests.

**CLIMATE:** Weather conditions for a region including temperature, precipitation, and wind.

**CROSSCUT SAW:** A saw designed to cut across the grain of wood; what lumberjacks used in the 1800s and early 1900s to saw trees down.

**CRUISER:** The person who estimates the amount of wood in a forest before it is cut.

**CUTOVER:** Land that has been logged. This term is often used as “the cutover,” which refers to northern Wisconsin after it was heavily logged during the period from the 1850s to the 1920s.

**DEplete:** To exhaust the abundance of something.

**DISTURBANCE:** An event that interrupts the growth of a forest (e.g., fire, harvest, wind, flood).

**ECOLOGICAL VALUE:** The worth of a forest in terms of what it contributes to an ecosystem as a whole.

**ECONOMIC VALUE:** The worth of a forest in financial terms (dollars and cents).

**ECONOMY:** The prosperity of an area based on the trading of money for products and services.

**EMPIRE:** Vast areas controlled by one government or group.

**ENVIRONMENT:** The air, water, soil, and organisms that surround and affect us.

**ENVIRONMENTAL EDUCATOR:** A person who teaches about forests and other environmental topics.

**EVEN-AGED:** A group of trees that are all nearly the same age.

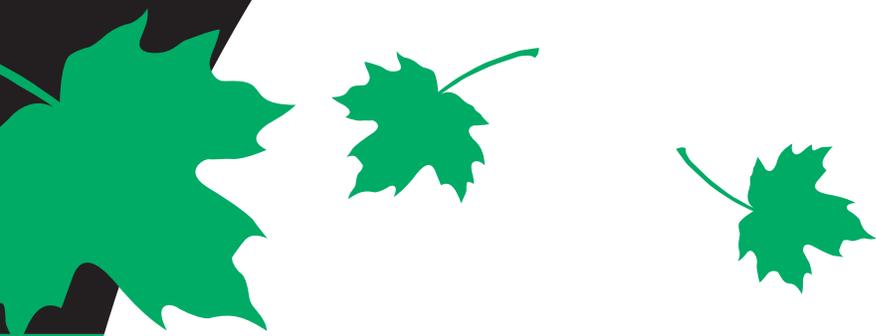
**EXPLOIT:** To take advantage of something for one’s own benefit.

**FELLER:** The person who used a crosscut saw to saw a tree down.

**FITTER:** The person who cuts a notch on one side of the tree in preparation for cutting it down.

**FOREST MANAGEMENT:** The use of techniques (e.g., planting, harvesting) to promote, conserve, or alter forests to meet desired outcomes.

**FOREST RANGER:** A person who fights fires in forests, grasslands, and marshes.



**GREAT DEPRESSION:** A period in history when the economy was bad and many people were without jobs.

**HAY MAN ON THE HILL:** The person who spreads hay on icy slopes to make it safe for the sleighs to travel.

**IMMIGRANT:** A person who has moved to a new area from a different country.

**INTEREST:** A fee charged for lending money to someone.

**LAND SPECULATION:** Buying land with the hopes of selling for a higher price and making a profit.

**LANDOWNER:** A person who owns land.

**LOGGER:** A person who cuts down trees and sells them to make a living.

**LOGGING:** The removal of trees from the forest for lumber.

**LUMBER:** Boards sawed from logs.

**LUMBERJACK:** A term used for individuals who work in the woods during a logging process.

**MARKER:** The person who pounds the lumber company's stamp into the end of each log.

**MERCHANTABLE TIMBER:** Trees with economic value.

**MORTGAGE:** A loan for the purchase of property that is paid back over a long period of time with interest.

**NEED:** Something necessary for life, like food and water.

**NOTCH:** A V-shaped gap made in a tree that is going to be cut down.

**NURSERY:** A place where trees are grown from seeds so that they can be planted later in another location.

**PARK RANGER:** A person who works in a park to protect the park and people who use it.

**POPPLE:** A term sometimes used for aspen trees.

**RENEWABLE RESOURCE:** A resource that has the ability to regenerate, grow back, or produce more.

**RIVER PIG:** The person who floats the logs down the river to the lumber mill.

**ROOT COLLAR:** Where the trunk and roots meet.

**SCALER:** The person who measures each log and estimates how much wood is there.

**SCAT:** A scientific term for animal feces.

**SETTLER:** A person who came from another place to make a new home.

**SKIDDER:** The person who drags the logs out of the forest and loads them onto sleighs.

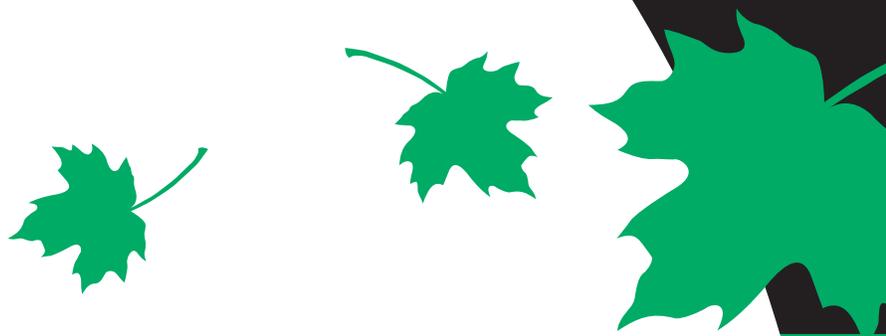
**SKY BIRD:** The person who stands on top of the logs on the sleigh and arranges them into a pile.

**SLASH:** Branches, leaves, and twigs left after cutting down a tree.

**SLEIGH:** A horse-drawn vehicle with runners instead of wheels that was used to haul a pile of logs or other cargo.

**SOCIAL VALUE:** The worth of a forest to people (e.g., aesthetics, culture, education, and recreation).

**SOIL TYPE:** A way to classify soils, such as sandy, loam, or clay.



**SPAWNING:** What fish do when they mate and lay eggs.

**STEWARD:** A person who takes responsibility to make decisions and take actions today that will allow resources to be maintained in a healthy manner.

**SUSTAINABLE:** The ability for something to be maintained for use today and in the future.

**SUSTAINABLE MANAGEMENT:** Maintenance of forests to meet current and future ecological, economic, and social needs.

**SWAMPER:** The person who cuts the branches off the tree after it has been cut down.

**TAX DELINQUENT:** Not paying the taxes on your property.

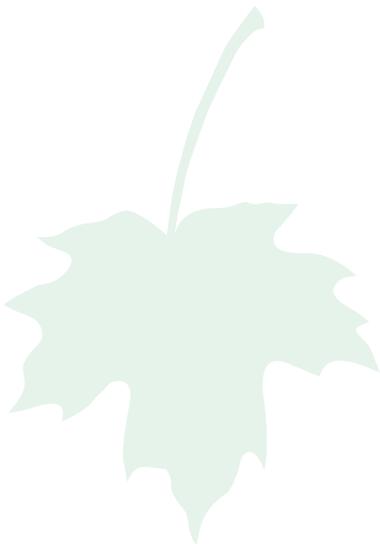
**TEAMSTER:** The person who brings the loaded sleighs down to the river with horse or oxen.

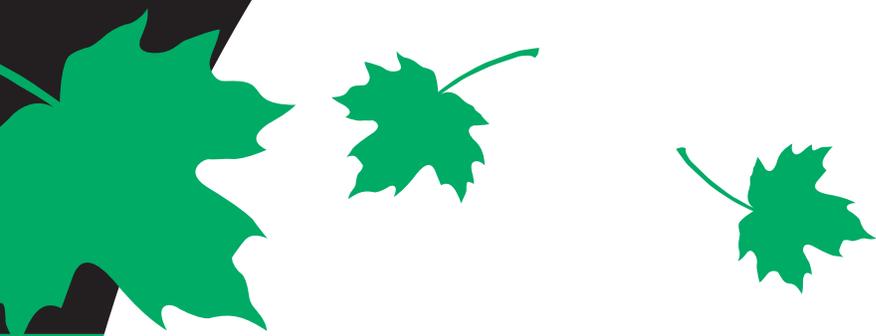
**TOURISM:** An industry that makes money by providing services to people who come to an area for vacation.

**UNEVEN-AGED:** A group of trees of different ages.

**URBAN FOREST:** The trees and associated living organisms in an urban area.

**WANT:** Something nice to have, but not a necessity.





# WISCONSIN MODEL ACADEMIC STANDARDS

LEAF lessons address Wisconsin Model Academic Standards in Agriculture Education, Environmental Education, Language Arts, Mathematics, Science, Social Studies, and Visual Arts. On the following pages, you will find the standards listed by lesson along with an explanation of how they are addressed by each lesson.

## LESSON 1: NATIVE AMERICANS AND THE FOREST

### AGRICULTURE A.4.2 *Global Agricultural Systems*

**Standard is:** Understand how cultural influences shape how people use food and fiber.

Students read a story that describes how the forest provided Native Americans food and fiber.

### AGRICULTURE D.4.1 *Agriscience/Production*

**Standard is:** Understand that food and fiber originate from plants and animals.

Students read a story that describes how forest plants and animals provided Native Americans food and fiber.

### AGRICULTURE D.4.2 *Agriscience/Production*

**Standard is:** Understand that the food and fiber system uses natural resources.

Students read a story that describes how the forest provided Native Americans food and fiber.

### AGRICULTURE E.4.1 *Ecology/Environment*

**Standard is:** Identify various plants and animals and the ways humans benefit from them.

Students read a story that tells how Native Americans depended on the plants and animals of the forest.

### LANGUAGE ARTS A.4.1 *Reading and Literature*

**Standard is:** Use effective reading strategies... Infer the meaning of unfamiliar words, demonstrate phonemic awareness, and read aloud with age-appropriate fluency.

Students read a story aloud about Native Americans.

### LANGUAGE ARTS A.4.4 *Reading and Literature*

**Standard is:** Read to acquire information.

Students read a story to learn about Native American uses of the forest.

### ENVIRONMENTAL EDUCATION B.4.5 *Energy and Ecosystems*

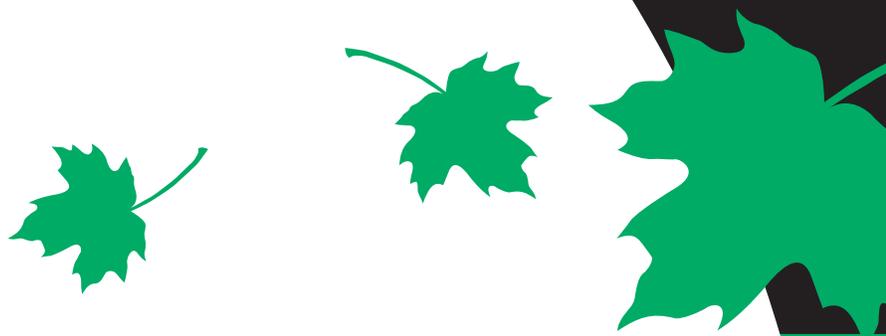
**Standard is:** Describe natural and human-built ecosystems in Wisconsin.

Students read and illustrate a story that describes the forest ecosystem and how Native Americans altered that system.

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

**Standard is:** Describe and give examples of ways in which people interact with the physical environment, including the use of land, location of communities, methods of construction, and design of shelters.

Students read and illustrate a story that describes how Native Americans lived in the forest and utilized the forest to meet their basic needs.



### VISUAL ARTS C.4.7

#### *Visual Designs and Production*

**Standard is:** Develop basic skills to produce quality art.

Students draw illustrations visually depicting the details from a story.

### VISUAL ARTS E.4.5

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms such as sketches.

Students draw illustrations visually depicting the details from a story.

### VISUAL ARTS K.4.3

#### *Making Connections*

**Standard is:** Use what they are learning about life, nature, the physical world, and people to create art.

Students draw illustrations visually depicting the details from a story.

## LESSON 2: FORESTS BUILT OUR STATE

### SOCIAL STUDIES A.4.2

#### *Geography: People, Places, and Environments*

**Standard is:** Locate on a map or globe physical features such as continents, oceans, mountain ranges, and land forms; natural features such as resources, flora, and fauna; and human features such as cities, states, and national borders.

Through the comparison of several maps, students investigate how forest product industries played a major role in the settlement of Wisconsin.

### SOCIAL STUDIES A.4.4

#### *Geography: People, Places, and Environments*

**Standard is:** Describe and give examples of ways in which people interact with the physical environment, including use of land, location of communities, methods of construction, and design of shelters.

Students brainstorm the ways forests provided for early settlers and then compare resource maps to determine how forests affected the settlement of communities.

### SOCIAL STUDIES B.4.1

#### *History: Time, Continuity, and Change*

**Standard is:** Identify and examine various sources of information that are used for constructing an understanding of the past, such as artifacts, documents, letters, diaries, maps, textbooks, photos, paintings, architecture, oral presentations, graphs, and charts.

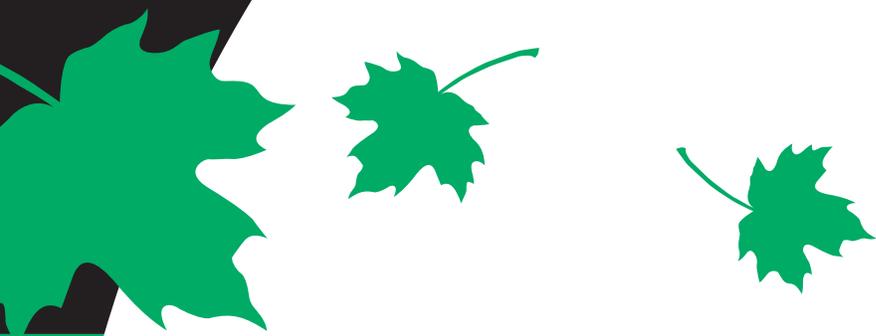
Through the comparison of several maps, students transpose data on a map as they investigate how forest product industries played a major role in the settlement of Wisconsin.

### VISUAL ARTS H.4.5

#### *Visual Thinking*

**Standard is:** Be able to read simple maps, charts, and plans.

Through the comparison of several maps, students investigate how forest product industries played a major role in the settlement of Wisconsin.



## LESSON 3: HELP WANTED – LUMBERJACKS

### LANGUAGE ARTS A.4.1

#### *Reading and Literature*

**Standard is:** Use effective reading strategies to achieve their purposes in reading.

Students take turns reading a story aloud and later have to differentiate information they have read.

### LANGUAGE ARTS A.4.4

#### *Reading and Literature*

**Standard is:** Read to acquire information – summarize key details of informational texts, connecting new information to prior knowledge.

Students take turns reading a story aloud and later have to complete a matching exercise based on what they have read.

### LANGUAGE ARTS C.4.2

#### *Oral Language*

**Standard is:** Listen to and comprehend oral communications – identify and summarize key points of a story or discussion.

Students listen and follow along as others read a story aloud. Later, they work in groups to match information covered in the story.

### VISUAL ARTS E.4.4

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms useful in everyday life, such as sketches, diagrams, graphs, plans, and models.

Students take information they have gathered from reading a story and draw pictures to visually illustrate specific jobs that were part of 19th century logging in Wisconsin.

## LESSON 4: BROKEN DREAMS

### AGRICULTURE A.4.3

#### *Global Agricultural Systems*

**Standard is:** Explain how climate affects plants and animals raised.

Students read letters from immigrant families living in the cutover and learn about how the northern Wisconsin climate affected the growing of crops.

### AGRICULTURE E.4.3

#### *Ecology/Environment*

**Standard is:** Understand how different climatic conditions determine the plants that are grown in an area.

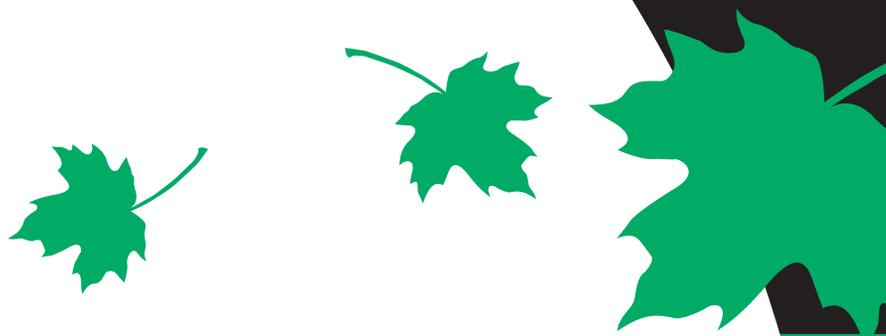
Students read letters from immigrant families living in the cutover and learn about how the northern Wisconsin climate affected the growing of crops.

### LANGUAGE ARTS A.4.2

#### *Reading and Literature*

**Standard is:** Read, interpret, and critically analyze literature – summarize ideas drawn from stories, identifying cause-and-effect relationships, interpreting events and ideas, and connecting different works to each other and to real-life experiences.

Students review a variety of materials including advertisements, letters, bills of sale, land descriptions, pictures, and background information to answer questions and predict the success or failure of a family farming the cutover.



### LANGUAGE ARTS A.4.3

#### *Reading and Literature*

**Standard is:** Read and discuss literary and non-literary texts in order to understand the human experience – identify and summarize ideas and key points from literature, informational texts, and other print and non-print sources.

Students read a family description and a series of letters written to family members to document what life was like for an immigrant family farming the cutover.

### LANGUAGE ARTS A.4.4

#### *Reading and Literature*

**Standard is:** Read to acquire information – summarize key details of informational texts, connecting new information to prior knowledge.

Students study a variety of documents, summarize key information, and update their thoughts on the life of a family living in the cutover.

### LANGUAGE ARTS C.4.1

#### *Oral Language*

**Standard is:** Orally communicate information, opinions, and ideas effectively to different audiences for a variety of purposes – read aloud effectively from previously-read material.

Students will read aloud letters from families, discuss information they have reviewed, and share their opinions and predictions.

### LANGUAGE ARTS C.4.2

#### *Oral Language*

**Standard is:** Listen to and comprehend oral communications – identify and summarize key points of a story or discussion – follow sequence in plot and character development, predict outcomes, and draw conclusions.

Students will read aloud, discuss information in small group, summarize key points, predict outcomes and draw conclusions about the hardships of farming the cutover.

### ENVIRONMENTAL EDUCATION A.4.2

#### *Questioning and Analysis*

**Standard is:** Collect information, make predictions, and offer explanations about questions asked.

Students review a variety of materials including advertisements, letters, bills of sale, land descriptions, pictures, and background information to answer questions and predict the success or failure of a family farming the cutover.

### ENVIRONMENTAL EDUCATION A.4.3

#### *Questioning and Analysis*

**Standard is:** Develop answers, draw conclusions, and revise their personal understanding as needed based on their investigations.

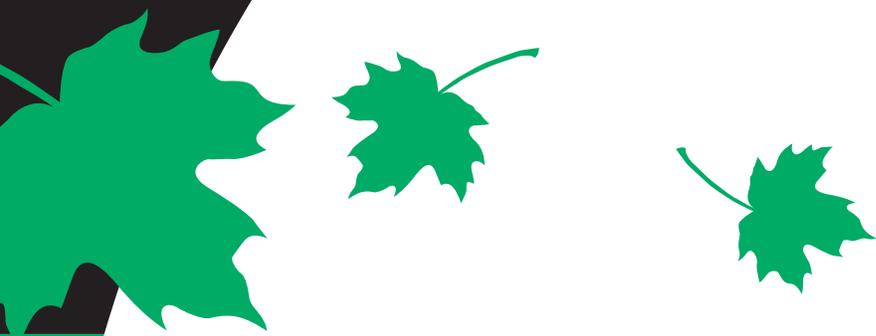
Students review a variety of materials including advertisements, letters, bills of sale, land descriptions, pictures, and background information to answer questions and predict the success or failure of a family farming the cutover.

### ENVIRONMENTAL EDUCATION A.4.4

#### *Questioning and Analysis*

**Standard is:** Communicate their understanding to others in simple terms.

Students work in small groups, review information, and discuss their thoughts on how their assigned family is doing as cutover farmers.



## SOCIAL STUDIES B.4.1

### *History: Time, Continuity, and Change*

**Standard is:** Identify and examine various sources of information that are used for reconstructing an understanding of the past, such as artifacts, documents, letters, diaries, maps, textbooks, photos, paintings, architecture, oral presentations, graphs, and charts.

Students examine a variety of sources of information including pictures, letters, bills of sale, deeds, bank notes, and descriptions to determine whether their family succeeds or fails at farming the cutover.

## SOCIAL STUDIES B.4.3

### *History: Time, Continuity, and Change*

**Standard is:** Examine biographies, stories, narratives, and folk tales to understand the lives of ordinary and extraordinary people, place them in time and context, and explain their relationship to important historical events.

Students examine a variety of sources of information to understand the lives of a family farming the cutover.

## LESSON 5: I SAW IT ON THE 6 O’CLOCK NEWS

### LANGUAGE ARTS A.4.1

#### *Reading and Literature*

**Standard is:** Use effective reading strategies to achieve their purposes in reading – read aloud with age-appropriate fluency, accuracy, and expression.

Students act as news reporters, interview candidates, and read aloud from a script as though they were on the news scene.

### LANGUAGE ARTS C.4.1

#### *Oral Language*

**Standard is:** Orally communicate information, opinions, and ideas effectively to different audiences for a variety of purposes.

Students act as news reporters, interview candidates, and read aloud from a script as though they were on the news scene.

### LANGUAGE ARTS C.4.2

#### *Oral Language*

**Standard is:** Listen to and comprehend oral communications – identify and summarize key points of a story or discussion.

Students listen to a mock live newscast, pick out the important information from each news segment, and record the information on a worksheet.

### ENVIRONMENTAL EDUCATION B.4.9

#### *Natural Resources and Environmental Quality*

**Standard is:** Distinguish between renewable and nonrenewable resources.

Students participate in a discussion to define and give examples of renewable and nonrenewable resources.

### SOCIAL STUDIES B.4.4

#### *History: Time, Continuity, and Change*

**Standard is:** Use a timeline to select, organize, and sequence information describing eras in history.

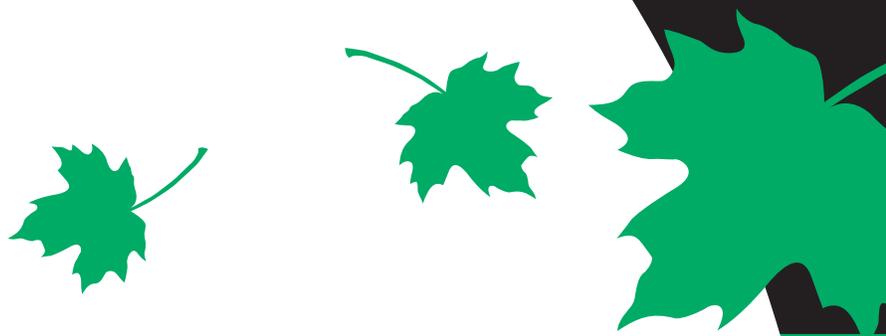
Students use notes they have taken during a mock newscast to put events on a timeline.

### VISUAL ARTS A.4.1

#### *Visual Memory and Knowledge*

**Standard is:** Develop a basic mental storehouse of images.

Students watch and listen to a mock live newscast and develop images in their minds of the events. Later in the lesson, they are asked to draw an illustration of one of the news segments.



### VISUAL ARTS E.4.4

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms useful in everyday life such as sketches, diagrams.

Students draw illustrations of events reported on in a mock newscast.

## LESSON 6: FORESTS ARE IMPORTANT TO YOU AND ME

### LANGUAGE ARTS C.4.2

#### *Oral Language*

**Standard is:** Listen to and comprehend oral communications – recall content of stories after hearing them, relate the content to prior knowledge, and answer various questions about the story.

Students listen to a guided imagery, visualize the story, and participate in a brainstorm of the main items covered in the story.

### ENVIRONMENTAL EDUCATION B.4.10

#### *Natural Resources and Environmental Quality*

**Standard is:** Describe how they use natural resources in their daily lives.

Students listen to a guided imagery and develop mental images of the importance of Wisconsin's forest resources to their daily lives. As a class they brainstorm a list of why forests are important to their lives and later conclude the lesson by sharing three reasons forests are important to them.

### ENVIRONMENTAL EDUCATION B.4.11

#### *Natural Resources and Environmental Quality*

**Standard is:** List jobs in the community that result from or are influenced by processing and using natural resources.

Students listen to a guided imagery and explore the importance of Wisconsin forests to employment.

### VISUAL ARTS A.4.1

#### *Visual Memory and Knowledge*

**Standard is:** Develop a basic mental storehouse of images.

Students participate in a guided imagery, where they are asked to put mental images to the narrative of the story.

### VISUAL ARTS E.4.4

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms useful in everyday life, such as sketches, diagrams, graphs, plans, and models.

Students who participate in the non-technology option draw illustrations to summarize what they have learned about the importance of Wisconsin's forests to our everyday lives.

## LESSON 7: SUSTAINING OUR FORESTS

### LANGUAGE ARTS C.4.1

#### *Oral Language*

**Standard is:** Orally communicate information, opinions, and ideas effectively to different audiences for a variety of purposes – distinguish between fact and opinion and provide evidence to support opinions.

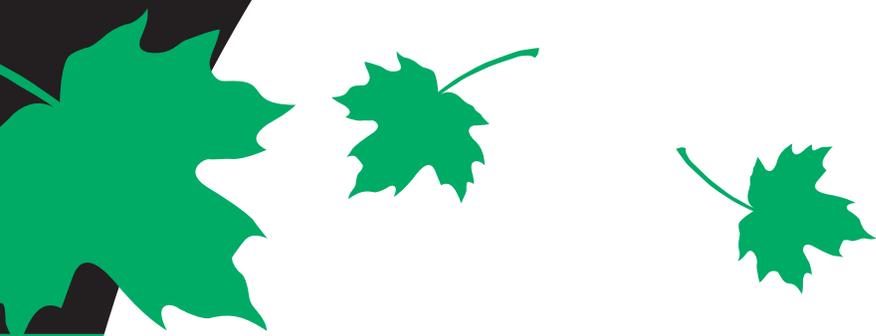
Students participate in a jigsaw reading of dilemma cards and debate what actions would help sustain forests.

### LANGUAGE ARTS C.4.3

#### *Oral Language*

**Standard is:** Participate effectively in discussion – reflect on the ideas and opinions of others and respond thoughtfully.

Students participate in a jigsaw reading of dilemma cards and debate what actions would help sustain forests.



### ENVIRONMENTAL EDUCATION C.4.5

#### *Environmental Issue Investigation Skills*

**Standard is:** Identify proposed solutions to the issue and discuss arguments for and against the issue.

Students participate in a jigsaw reading of dilemma cards and debate what actions would help sustain forests.

### ENVIRONMENTAL EDUCATION D.4.5

#### *Decision and Action Skills*

**Standard is:** Explain how they can influence an environmental issue.

Students brainstorm ways that they as individuals can act as stewards to sustain forests.

### ENVIRONMENTAL EDUCATION E.4.1

#### *Personal and Civic Responsibility*

**Standard is:** Identify and describe examples of their environmental civic responsibilities and action they take to meet them.

Students define the word steward and brainstorm ways that they can help ensure the sustainability of forests.

### SOCIAL STUDIES C.4.5

#### *Political Science and Citizenship: Power, Authority, Governance, and Responsibility*

**Standard is:** Explain how various forms of civic actions, such as running for political office, voting, signing an initiative, and speaking at hearings, can contribute to the well-being of the community.

Students participate in a jigsaw reading of dilemma cards containing personal/civic options and debate what actions would help sustain forests.

### SOCIAL STUDIES D.4.7

#### *Economics: Production, Distribution, Exchange, and Consumption*

**Standard is:** Describe how personal economic decisions, such as deciding what to buy, what to recycle, or how much to contribute to people in need, can affect the lives of people in Wisconsin, the United States, and the world.

Students participate in a jigsaw reading of dilemma cards containing consumer choices and debate what actions would help sustain forests.

### VISUAL ARTS E.4.4

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms useful in everyday life, such as sketches, diagrams, graphs, plans, and models.

Students make a family crest or shield that visually represents why forests are important to our ecological, economic, and social well-being, and how they as stewards can help sustain forests.

## CAREERS EXPLORATION

### AGRICULTURE EDUCATION F.4.4

#### *Business Management and Marketing*

**Standard is:** Recognize that a variety of occupations are involved in agricultural businesses.

- Identify jobs/careers associated with agricultural products other than food (e.g., fiber and natural resources)
- List the knowledge and skills necessary for jobs in the food, fiber, and natural resources industry

By reading descriptions of different forest and forestry-related jobs, students learn about the jobs and skills needed for those jobs.



### ENVIRONMENTAL EDUCATION B.4.11

#### *Natural Resources and Environmental Quality*

**Standard is:** List jobs in the community that result from or are influenced by processing and using natural resources.

By reading descriptions of jobs and playing careers bingo, students learn about jobs related to forests and forestry.

### SCIENCE G.4.1

#### *Science Applications*

**Standard is:** Identify the technology used by someone employed in a job or position in Wisconsin and explain how the technology helps.

By reading career profiles about people in Wisconsin with jobs related to forests, students learn about technology used in these jobs on a daily basis.

## FIELD ENHANCEMENT 1: UNLOCKING A FOREST'S PAST

### ENVIRONMENTAL EDUCATION A.4.1

#### *Questioning and Analysis*

**Standard is:** Make observations, ask questions, and plan environmental investigations.

Students make observations and ask questions about the history of a forest.

### ENVIRONMENTAL EDUCATION A.4.2

#### *Questioning and Analysis*

**Standard is:** Collect information, make predictions, and offer explanations about questions asked.

Students collect information from a forest, offer explanations about the forest's history, and predict what it once looked like.

### ENVIRONMENTAL EDUCATION A.4.3

#### *Questioning and Analysis*

**Standard is:** Develop answers, draw conclusions, and revise their personal understanding as needed based on their investigations.

Students develop answers to questions, draw conclusions, and revise their personal understanding as they investigate clues about the history of a forest.

### ENVIRONMENTAL EDUCATION A.4.4

#### *Questioning and Analysis*

**Standard is:** Communicate their understanding to others in simple terms.

Students use their drawing to communicate with their class about the history of the forest.

### SCIENCE C.4.5

#### *Science Inquiry*

**Standard is:** Use data they have collected to develop explanations and answer questions generated by investigations.

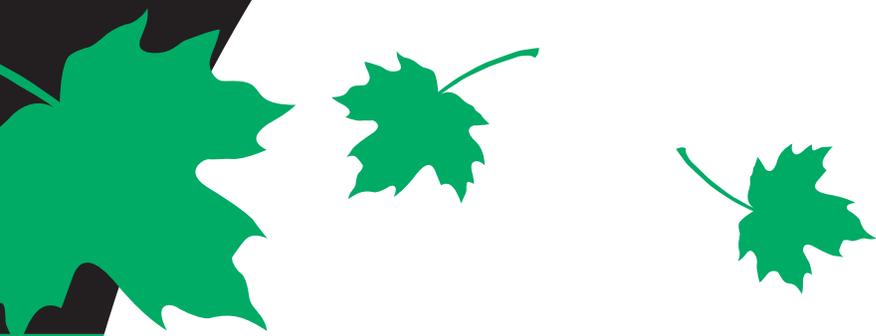
Students collect data and use it to develop explanations about what has happened in the past.

### SOCIAL STUDIES A.4.4

#### *Geography: People, Places, and Environments*

**Standard is:** Describe and give examples of ways in which people interact with the physical environment including use of land.

Students study clues and collect data about a particular forest to determine how it was used by people in the past.



### VISUAL ARTS E.4.4

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms useful in everyday life, such as sketches, diagrams, graphs, plans and models.

Students communicate how a forest looked in the past by drawing a picture to share with their class.

## FIELD ENHANCEMENT 2: ARE FORESTS IMPORTANT TODAY?

### ENVIRONMENTAL EDUCATION A.4.1

#### *Questioning and Analysis*

**Standard is:** Make observations, ask questions, and plan environmental investigations.

Students make observations while investigating the values of a forest.

### ENVIRONMENTAL EDUCATION A.4.3

#### *Questioning and Analysis*

**Standard is:** Develop answers, draw conclusions, and revise their personal understanding as needed based on their investigations.

Students develop answers to questions about the value of forests, draw conclusions based on their investigations and revise their personal understanding of how the forest is important to them.

### ENVIRONMENTAL EDUCATION B.4.10

#### *Knowledge of Environmental Processes and Systems*

**Standard is:** Describe how they use natural resources in their daily lives.

Through discussion, drawing and writing, students describe how the forest and its resources are important to their daily lives.

### ENVIRONMENTAL EDUCATION B.4.11

#### *Knowledge of Environmental Processes and Systems*

**Standard is:** List jobs in the community that result from or are influenced by processing and using natural resources.

Students discuss jobs in the community that result from or are influenced by processing and using natural resources from the forest.

### VISUAL ARTS E.4.4

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms useful in everyday life, such as sketches, diagrams, graphs, plans and models.

Students draw pictures showing forest values and use them to communicate their thoughts to their classmates.

## FIELD ENHANCEMENT 3: SEARCHING FOR BASIC NEEDS

### ENVIRONMENTAL EDUCATION A.4.4

#### *Questioning and Analysis*

**Standard is:** Communicate their understanding to others in simple terms.

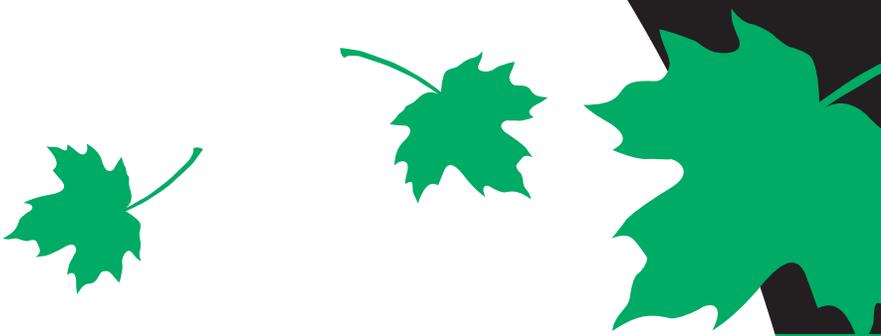
After researching which tree to plant, students present their recommendation to the class.

### ENVIRONMENTAL EDUCATION D.4.1

#### *Decision and Action Skills*

**Standard is:** Demonstrate knowledge of a decision-making process that includes selecting and using data, suggesting possible alternatives, predicting consequences, and being aware of available resources.

Students make a decision on which tree to plant and where, based on research and data, and present their idea to the class.



### SCIENCE B.4.1

#### *Nature of Science*

**Standard is:** Use encyclopedias, source books, texts, computers, teachers, parents, other adults, journals, popular press, and various other sources, to help answer science-related questions and plan investigations.

Students use books, computers, site investigation and teachers to help decide which tree to plant and where to plant it.

### SCIENCE F.4.1

#### *Life and Environmental Science*

**Standard is:** Discover how each organism meets its needs for water, nutrients, protection, and energy in order to survive.

Students discover what a tree needs through planting one and seeing that all its needs are met.

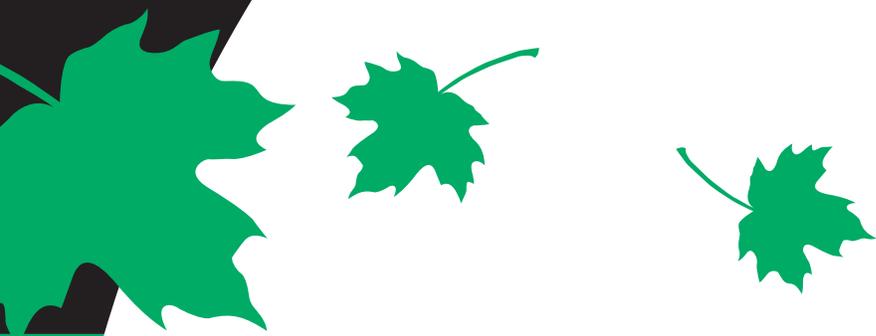
### VISUAL ARTS E.4.4

#### *Visual Communication and Expression*

**Standard is:** Communicate basic ideas by producing visual communication forms useful in everyday life, such as sketches, diagrams, graphs, plans and models.

Students will communicate their tree recommendation by drawing a picture of their chosen tree to share with their class.





# WISCONSIN MODEL ACADEMIC STANDARDS

Standard	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Lesson 7	Careers	FE 1	FE 2	FE 3
<b>AGRICULTURE EDUCATION</b>											
A.4.2											
A.4.3											
D.4.1											
D.4.2											
E.4.1											
E.4.3											
F.4.4											
<b>LANGUAGE ARTS</b>											
A.4.1											
A.4.2											
A.4.3											
A.4.4											
C.4.1											
C.4.2											
C.4.3											
<b>ENVIRONMENTAL EDUCATION</b>											
A.4.1											
A.4.2											
A.4.3											
A.4.4											
B.4.5											
B.4.9											
B.4.10											
B.4.11											
C.4.5											
D.4.1											

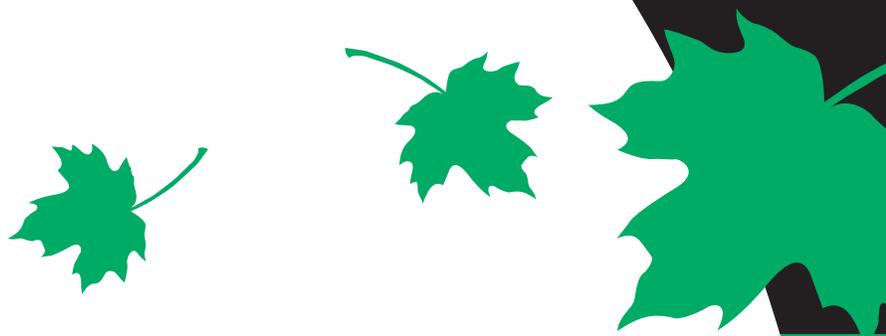


# WISCONSIN MODEL ACADEMIC STANDARDS

Standard	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5	Lesson 6	Lesson 7	Careers	FE 1	FE 2	FE 3
<b>ENVIRONMENTAL EDUCATION (CONTINUED)</b>											
D.4.5											
E.4.1											
<b>SCIENCE</b>											
B.4.1											
C.4.5											
F.4.1											
G.4.1											
<b>SOCIAL STUDIES</b>											
A.4.2											
A.4.4											
B.4.1											
B.4.3											
B.4.4											
C.4.5											
D.4.7											
<b>VISUAL ARTS</b>											
A.4.1											
C.4.7											
E.4.4											
E.4.5											
H.4.5											
K.4.3											

## SUBJECT AREAS

	<b>ARTS</b> (Art, Dance, Drama, Music)	<b>LANGUAGE ARTS</b>	<b>SCIENCE</b>	<b>SOCIAL STUDIES</b>
<b>LESSON 1</b> Native Americans and the Forest				
<b>LESSON 2</b> Forests Built Our State				
<b>LESSON 3</b> Help Wanted – Lumberjacks				
<b>LESSON 4</b> Broken Dreams				
<b>LESSON 5</b> I Saw It on the 6 O’Clock News				
<b>LESSON 6</b> Forests Are Important to You and Me				
<b>LESSON 7</b> Sustaining Our Forests				
<b>CAREERS EXPLORATION</b>				
<b>FIELD ENHANCEMENT 1</b> Unlocking a Forest’s Past				
<b>FIELD ENHANCEMENT 2</b> Are Forests Important Today?				
<b>FIELD ENHANCEMENT 3</b> Caring for the Future of Forests				



## MULTIPLE INTELLIGENCES

Multiple Intelligences can be thought of as different modes of learning and retaining information. Generally everyone has all the multiple intelligences, but in varying strengths. Students excel when they have an opportunity to express themselves in their preferred intelligences, but also need to have opportunities to strengthen other areas. The table below lists each of the LEAF lessons and the multiple intelligences that are addressed.

### V-L: VERBAL-LINGUISTIC

Using language to express ideas and concepts, thinking symbolically and reasoning abstractly, and the ability to create conceptual verbal patterns.

### L-M: LOGICAL-MATHEMATICAL

Skillfully able to think logically, inductively, categorically; recognize patterns; and work with abstract concepts.

### V-S: VISUAL-SPATIAL

Perceiving images and spatial elements and representing those expressions effectively.

### B-K: BODILY-KINESTHETIC

Creatively using the whole body to illustrate ideas and concepts.

### M-R: MUSICAL-RHYTHMIC

Discriminating among musical components and using instruments or the voice to express understanding.

### INTER: INTERPERSONAL

Demonstrating empathy toward or appreciating the thoughts and feelings of others.

### INTRA: INTRAPERSONAL

Analyzing one's own thoughts and motivations and expressing understanding of those thoughts and feelings through behavior.

### NAT: NATURALISTIC

Sensing patterns in and making connections with nature and the environment.

	 V-L	 L-M	 V-S	 B-K	 M-R	 Inter	 Intra	 Nat
<b>Lesson 1: Native Americans and the Forest</b>								
<b>Lesson 2: Forests Built Our State</b>								
<b>Lesson 3: Help Wanted – Lumberjacks</b>								
<b>Lesson 4: Broken Dreams</b>								
<b>Lesson 5: I Saw It on the 6 O'Clock News</b>								
<b>Lesson 6: Forests Are Important to You and Me</b>								
<b>Lesson 7: Sustaining Our Forests</b>								
<b>Careers Exploration</b>								
<b>Field Enhancement 1: Unlocking a Forest's Past</b>								
<b>Field Enhancement 2: Are Forests Important Today?</b>								
<b>Field Enhancement 3: Caring for the Future of Forests</b>								

# LESSON CONNECTIONS TO THE LEAF CONCEPTUAL GUIDE

The objectives of each lesson in the *LEAF Wisconsin K-12 Forestry Education Guide* are based on subconcepts outlined in the *LEAF Conceptual Guide to K-12 Forestry Education in Wisconsin*.

This chart identifies the subconcepts covered by each lesson in the 4 Unit.

Subconcept:	Theme 1: What is a Forest?																		Theme 2: Why Are They important?												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	
Lesson 1																															
Lesson 2																															
Lesson 3																															
Lesson 4																															
Lesson 5																															
Lesson 6																															
Lesson 7																															
Careers																															

Subconcept:	Theme 3: How Do We Sustain?																		Theme 4: What is the Future?												
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
Lesson 1																															
Lesson 2																															
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Lesson 7																															
Careers																															

