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U.S. Endowment
for Forestry and Communities

FORESTS OF THE FIRST STEWARDS

9th - 12th Grade Discussion Guide

Lesson Plan: End Use Products & Education in Menominee Forestry

EPISODE OVERVIEW:

Basket Weaving

We meet up next with a Menominee basket weaver who takes us through the art of basket making, the history and cultural significance. We visit a basket-making class, where the instructor guides viewers through the process of weaving and creating a basket. We also learn of other historical uses such as building materials, canoes, and warmth that the forest provides. We also see many finished baskets on display, both new and old.

Menominee College – Sustainable Development Institute (SDI)

We next travel to Menominee College where we get a first-hand look at the future of the forest. We meet with Jennifer Gauthier, who introduces us to SDI, and their efforts to employ sustainable practices with a culturally-grounded context. Also, learning how the college is bridging cultural teachings and modern industry technology.

Menominee Phenology Trail

Our journey on campus continues with a trip down the Phenology Trail with Jennifer Gauthier, who educates the viewers on the importance of Phenology and reinforces the cultural significance of the forest, highlighting how conservation and stewardship play a key role in the healthiness of the Menominee land and their way of life.





Warm Up:

How can natural resources be used in ways that preserve culture and support modern life?

Briefly connect to previous lessons on forestry and timber production. Explain that this lesson's focus is on how forest resources extend into cultural practices, education, and future sustainability.

LEARNING OBJECTIVES

By the end of this lesson, students will be able to:

- Analyze how forests provide renewable materials for cultural practices, technology, and modern industries.
- Examine the role of education in preserving traditional ecological knowledge while advancing scientific forestry practices.
- Evaluate how communities maintain cultural identity while adapting to modern environmental challenges.

Lesson / Activity Time (45–60 minutes total)

Introduction: 5 minutes

Prior Knowledge Activation: 5 minutes

Video / Content Exploration: 10–15 minutes

Activities: 20–25 minutes

Reflection & Discussion: 10 minutes

Assessment: 5–10 minutes





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ACTIVITY SUMMARIES

Students explore:

- Cultural uses of forest materials (basket weaving and beyond)
- The role of education in sustainability
- Connections between traditional knowledge and modern science

VOCABULARY:

- **Renewable resource:** a resource that remains available for use at future times and at levels not diminished by present use –note two types of renewable resources are those that are not dependent on or affected by human activity, such as wind and those that may be increased or decreased by human activity, such as timber growth and soil productivity
- **Phenology:** The study of the time of appearance of characteristic periodic phenomena in the life cycle of organisms in nature (e.g., migration in birds and flowering and leaf-fall in plants) particularly as these phenomena are influenced by environmental factors –note phenology especially involves the effects of temperature or day length
- Conservation:
 - 1. protection of plant and animal habitat
 - 2. the management of a renewable natural resource with the objective of sustaining its productivity in perpetuity while providing for human use compatible with sustainability of the resource
 - note for a forest this may include managed periodic cutting and removal of trees followed by regeneration conservation

BACKGROUND INFORMATION

The Menominee community has long used forest products for practical and cultural purposes, including basket weaving, construction, and tools. These practices reflect deep ecological knowledge and sustainable use of resources. Educational institutions like the Sustainable Development Institute (SDI) at Menominee College integrate cultural teachings with modern environmental science, preparing future leaders in sustainability. Phenology—the study of seasonal natural cycles—plays a key role in understanding ecosystem health and guiding conservation practices.

LEARNING PROCEDURE

1. Review prior knowledge on forestry and sustainability.
2. Introduce lesson topics:
 - a. Basket weaving and cultural practices
 - b. Menominee College and SDI
 - c. Phenology Trail and ecological observation
3. Present episode segments or summaries.
4. Engage students in activities connecting culture, science, and sustainability.
5. Facilitate discussion and reflection.
6. Conduct assessment.

ACTIVITIES

Activity 1: Cultural Resource Analysis

Students examine how forest materials are used:

- Basket weaving
- Canoes, shelter, tools

They identify forest practices to use these materials and cultural meaning behind each use.



Activity 2: Education & Innovation Discussion

Students analyze how institutions like Menominee College:

- Combine traditional knowledge with modern science
- Prepare students for environmental careers
- Address current environmental challenges

Activity 3: Phenology Observation Activity

Students create a simple phenology chart:

- Track seasonal changes (real or hypothetical)
- Identify patterns in plant/animal behavior

Discuss how these observations inform conservation.

REFLECTION / DISCUSSION

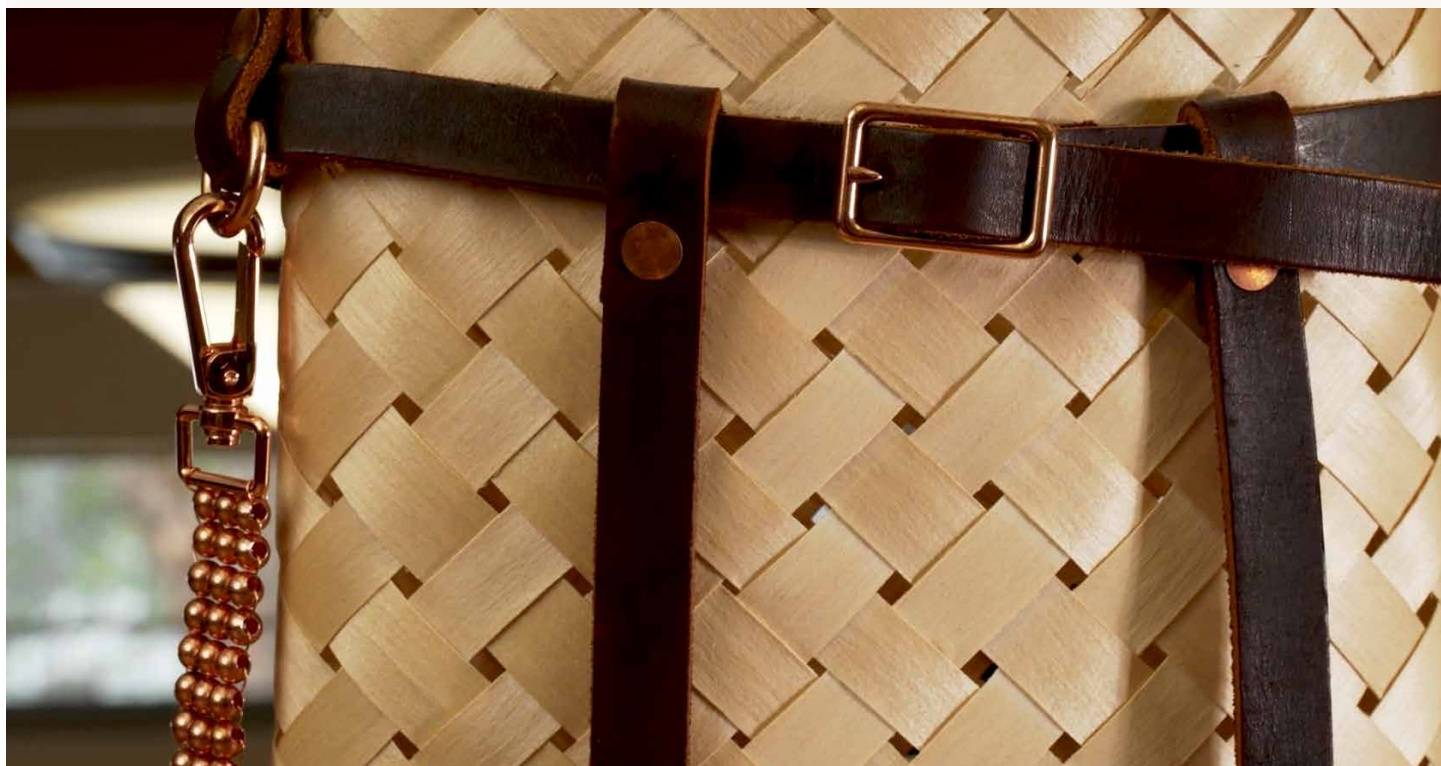
Students reflect on how culture, education, and environment are interconnected. (Choose 1-2)

Data Collection

Students gather:

- Examples of forest-based products
- Steps in cultural practices
- Observations related to phenology and sustainability

They organize findings in notes, diagrams, or charts.





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Discussion Questions

- How do forests support both cultural traditions and modern industries?
- What is phenology, and why does it matter?
- What is one potential impact on the phenology of a tree or plant in the context of climate change?
- How can traditional knowledge influence modern science?

Storytelling Prompts

- Tell a story about how a forest resource connects generations.

Assessment (Choose 1-2)

Essay Prompts

- Analyze how cultural practices like basket weaving demonstrate sustainable resource use.
- Evaluate the role of education in preserving culture while advancing environmental science.

Short Quiz

1. What is phenology?
2. Name one cultural use of forest resources.
3. What is the purpose of the Sustainable Development Institute?
4. How does education support sustainability?

Group or Individual Presentation

Students present on:

- Cultural forest products
- Phenology and ecosystem monitoring
- Careers in environmental science and forestry

Standards Alignment

- NGSS (Science)
 - HS-ESS3-4: Evaluate or refine technological solutions that reduce human impacts on natural systems.
 - HS-LS2-6: Evaluate claims, evidence, and reasoning that ecosystem interactions maintain relatively consistent conditions.
- Common Core (ELA)
 - RI.9-10.2 / RI.11-12.2: Determine central ideas of a text and analyze their development.
 - W.9-10.2 / W.11-12.2: Write informative texts to examine complex ideas and convey information clearly.



References

For additional information:

- <https://menominee-nsn.gov/CulturePages/BriefHistory>
- <https://www.menominee.edu/sustainable-development-institute>
- <https://www.mtewood.com/>

Additional Resources from LEAF: Wisconsin's K-12 Forestry Education Program:



LEAF-Wisconsin's K-12 Forestry Education Program
College of Natural Resources
University of Wisconsin-Stevens Point

- [Lesson 1: American Indians and the Forest](#)
- [Lesson 7: Sustaining Our Forests](#)
- [Career Profile - McKaylee Duquain](#)
- [Wisconsin Forest Tales](#)
- [K-1st Grade Field Enhancement - Sensing the Forest](#)
- [2nd-3rd Grade Field Enhancement - Observing Forest Interactions](#)
- [4th Grade Field Enhancement - Unlocking a Forest's Past](#)
- [5th-6th Grade Field Enhancement - Studying Forest Layers](#)
- [5th-6th Grade Field Enhancement - Woods Worth](#)
- [5th-6th Grade Field Enhancement - Competition in the Forest](#)