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FORESTS OF THE FIRST STEWARDS

6th - 8th Grade Discussion Guide

Episode/Lesson Plan #2: Menominee Tribal Enterprises (MTE) and End Use Products (Grades 6-8)

INTRODUCTION

Have you ever wondered how the wood products in your everyday life are made? Items like hardwood flooring, furniture, cardboard, and even forest-related products like maple syrup all begin in the forest.

In this episode, we visit Menominee Tribal Enterprises (MTE) to explore how forest products are harvested, processed, and managed through a system of long-term sustainability.

We learn how MTE selects individual trees for harvest using a careful, science-based process that is also grounded in cultural knowledge passed down through generations, including teachings from Chief Oshkosh. These practices are designed not only to produce wood products but also to maintain a healthy, diverse, and continuously regenerating forest.

We also follow the journey of timber from the forest to the processing facility, learning how each step of the process is intentionally designed to balance ecological health, economic stability, and cultural responsibility.

In addition, we visit the Fire and Forest Management Station to explore how the Menominee uses fire as a forest management tool. Students will learn about controlled burns, forest floor management, and how reducing excess fuel helps prevent uncontrolled wildfires. We also examine the cultural significance of fire as a traditional ecological practice used to support forest renewal and biodiversity.

Through these two systems, forest harvesting and fire management, students will see how modern forestry practices and cultural knowledge work together to sustain a healthy forest and community.





LEARNING OBJECTIVES (GRADES 3-5)

- i. Analyze the process of sustainable timber harvesting from selection in the forest through processing into finished wood products.
- ii. Investigate forestry-related careers and describe how different roles contribute to sustainable forest management systems.
- iii. Explain how forest management practices at Menominee Tribal Enterprises balance ecological health, economic needs, and long-term sustainability.
- iv. Demonstrate understanding of key concepts from the lesson.

STANDARDS ALIGNMENT

This lesson aligns with the following standards:

1. NGSS (Science)

- a. MS-ESS3-3: Apply scientific principles to design methods that reduce human impacts on the environment.
- b. MS-ETS1-2: Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of a problem.

2. Common Core (ELA)

- a. RI.6-8.7: Integrate information from visual and multimedia sources with text.
- b. SL.6-8.4: Present claims and findings using relevant evidence and clear reasoning.





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LESSON TIME ESTIMATE AND SUMMARY

(lesson time estimate 60 minutes)

Learning Objective	Activity	How Students Show They Learned	Time Estimate
Analyze the process of sustainable timber harvesting from selection in the forest through processing into finished wood products	Watch the Menominee Tribal Enterprises (MTE) segment showing harvesting, tree selection, and mill processing	Students create a “forest to product” sequence showing each step of the timber system using evidence from the episode	12–15 min
Investigate forestry careers and explain how they contribute to sustainable forest systems	Explore forestry careers such as foresters, fire crew members, and mill operators featured in the episode	Students research one forestry career and explain its role in sustaining forest management systems	18–20 min
Explain how forest management practices at Menominee Tribal Enterprises balance ecological health, economic needs, and long-term sustainability	Watch the fire crew segment; explore how Menominee use fire to help take care of their forest	Students design a healthy forest plan showing ways people might care for a forest (examples: controlled burns, clearing debris, planting trees, protecting wildlife areas).	15–20 min
Demonstrate understanding of key concepts from the lesson	Assessment: Short quiz or presentation (group or solo) demonstrating what was learned in today’s segments	Students answer 5 questions or share a presentation with take-aways from this episode	12–15 min

BEGINNER VOCABULARY

1. **Selective Harvest:** The practice of carefully choosing individual trees to be cut while leaving the rest of the forest intact, helping maintain forest health, diversity, and long-term growth.
2. **Sustainable Harvesting:** A method of managing forests so that trees can be harvested for products while still allowing the forest to regenerate and remain healthy over time.
3. **Forest Regeneration:** The natural process of a forest growing back after disturbance or harvest through seeds, sprouts, or new tree growth.



4. **Timber Processing:** The series of steps that turns harvested trees into usable wood products such as lumber, flooring, or furniture.
5. **Menominee Tribal Enterprises (MTE):** The organization responsible for managing the Menominee Forest's timber harvesting and processing operations in a way that supports both economic needs and long-term forest health.
6. **Controlled Burn:** A planned and carefully managed fire used to reduce excess vegetation, improve forest health, and lower the risk of uncontrolled wildfires.
7. **Slash Management:** The practice of managing leftover branches, leaves, and debris after harvesting to reduce fire risk and support forest regeneration.
8. **Forest Fuel Load:** The amount of dry plant material (such as leaves, branches, and debris) on the forest floor that can feed a wildfire.
9. **Ecosystem Resilience:** The ability of a forest or ecosystem to recover from disturbances such as harvesting, pests, or fire while maintaining its overall health and balance.
10. **Sustainable Forestry:** Managing forests in a way that meets current human needs while ensuring the forest remains healthy and productive for future generations.

BACKGROUND INFORMATION

Menominee Forest Management Systems

The Menominee Forest is managed as a working forest, meaning it is actively used to produce wood products while being maintained for long-term ecological health. Unlike many forest systems where harvesting and conservation are separated, the Menominee approach integrates both into a single system of stewardship.

This system is guided by a combination of modern forestry science and long-standing cultural knowledge that emphasizes balance, responsibility, and long-term thinking.

Menominee Tribal Enterprises (MTE)

Menominee Tribal Enterprises (MTE) is the organization responsible for managing timber harvesting and wood product production within the Menominee Forest.

MTE uses a selective harvesting system, where individual trees are carefully chosen for harvest based on factors such as age, health, and forest composition. This approach allows the forest to naturally regenerate while maintaining a continuous supply of timber.

Once trees are harvested, they are transported to processing facilities where they are converted into usable products such as lumber and other wood materials. This process supports both the local economy and long-term forest management goals.



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Research has shown that the Menominee Forest remains one of the few continuously harvested forests in North America that has maintained ecological health over more than a century of management.

Forest Fire Management

Fire plays an important role in forest health and management. Historically, many Indigenous communities used fire as a tool to manage vegetation, improve wildlife habitat, and maintain healthy forest conditions.

At the Menominee Fire and Forest Management Station, controlled burns and forest floor management techniques are used to reduce excess vegetation and lower the risk of uncontrolled wildfires.

This includes managing slash (leftover branches, small diameter wood, and debris from harvesting) and reducing forest fuel loads that can contribute to intense fires.

Controlled fire use helps:

- Promote forest regeneration
- Maintain biodiversity
- Reduce wildfire risk
- Support long-term ecosystem resilience

Cultural and Ecological Integration

Menominee forest management is based on the idea that ecological health, cultural responsibility, and economic activity are interconnected rather than separate systems.

This means that decisions about harvesting and fire management are made with long-term forest health in mind, rather than short-term resource extraction.

Through this integrated approach, the Menominee Forest continues to serve as both a working forest and a living ecosystem that supports community needs, cultural practices, and environmental sustainability.





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LEARNING PROCEDURE

1. Introduction

- Show a short clip or image of Menominee Tribal Enterprises (MTE), the sawmill, or forest harvesting operations.
- Facilitate a discussion:
 - Where do you think wood products like furniture, flooring, and cardboard come from?
 - What do you think happens to a tree after it is harvested?
 - How might a forest be managed so it can continue producing resources over time?
- Briefly introduce that in this episode, students will explore how the Menominee Forest is actively managed through two connected systems: sustainable harvesting and fire management.

2. Activity 1: Sustainable Timber Harvesting at MTE

- Students explore Menominee Tribal Enterprises (MTE) and how timber is selected, harvested, and processed into wood products.

3. Activity 2: Forestry Careers and Real-World Systems

- Students explore careers involved in forest management, including roles at MTE and fire management teams.

4. Reflection/Discussion

- Students share key takeaways and learnings from this episode and lesson.

5. Assessment (Quiz or Presentation)

- Students demonstrate learning through a short quiz or a single/group presentation on the subject matters in this episode.

6. Teacher Tips

- Encourage students to support their ideas with evidence from the episode or discussion.
- Use guiding questions to deepen thinking rather than providing direct answers.
- Allow flexibility for discussion time, as middle school students benefit from processing and sharing perspectives.

ACTIVITIES

Activity 1: Learn about Sustainable Timber Harvesting and Production

- Objective: Analyze how trees are selected, harvested, and processed into wood products within a sustainable forestry system.
- Materials: Menominee Tribal Enterprises (MTE) video segment. paper or graphic organizer, pencils or markers .
- Steps:
 - Watch the MTE video segment. Pause at key points to highlight tree selection, harvesting, and processing at the mill.
 - Discuss with students:



- How are trees selected for harvesting?
- What steps are involved in turning a tree into a usable product?
- How does this process support both the forest and the community?
- Students create a “forest to product” step-by-step flow diagram showing the process from standing forest to finished wood product using evidence from the episode.
- Students share their diagrams with a partner or small group and explain one key part of the process.
- Tips:
 - Encourage students to include vocabulary terms such as selective harvest, timber processing, and regeneration.
 - Students can use arrows or labels to clearly show the sequence of steps.

Activity 2: Cultural Connection to Forest Practices

- Objective: Investigate forestry careers and explain how different roles contribute to sustainable forest systems. Materials: Episode segments featuring forestry professionals, paper or digital research tools (if available) Steps:
 - Discuss with students the different roles shown in the episode, such as foresters, mill workers, and fire crew members. Discuss how traditions and values help guide how the forest is cared for.
 - Discussion prompts:
 - What different jobs are involved in managing the forest?
 - How do these roles work together as part of a system?
 - Why are these careers important for sustainability?
- Tips:
 - If research time is limited, students can use evidence from the episode instead of outside sources.
 - Encourage students to connect the career to either harvesting, fire management, or both systems.





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Reflection and Discussion

Students reflect on how forest harvesting and fire management work together as part of a larger system to support long-term forest health and sustainability.

Students may respond through written reflection, small group discussion, or whole-class sharing.

- Reflection prompts:
 - How do harvesting and fire management work together to maintain a healthy forest?
 - Why is it important to balance ecological health with economic needs in forest management?
 - What is one example from the episode that shows how human actions can support, rather than harm, the environment?
 - How does thinking about forests as systems change the way you understand how they are managed?
- Discussion Questions:
 - How does the process of harvesting trees at Menominee Tribal Enterprises support both the forest and the community?
 - What steps are taken to ensure that the forest can continue to grow after trees are harvested?
 - Why is fire used as a tool in forest management, and how do controlled burns differ from wildfires?
 - How do harvesting and fire management work together as part of a larger forest system?
 - What might happen to the forest if one of these management practices was not used?

ASSESSMENT (SHORT QUIZ OR GROUP PRESENTATION)

Student understanding will be evaluated through written responses, discussion participation, and application of key concepts.

Students will demonstrate their learning by:

- Explaining the process of sustainable timber harvesting
- Describing how fire management supports forest health
- Using evidence from the episode to support claims
- Identifying how forestry careers contribute to sustainable systems

Short Quiz

1. What is one way trees are selected for harvesting in a sustainable forestry system?
2. What is the purpose of a controlled burn in forest management?
3. How does managing slash (forest debris) help reduce wildfire risk?
4. What is one way Menominee Tribal Enterprises balances economic needs with forest health?
5. How do harvesting and fire management work together to support long-term forest sustainability?

OR

Group Presentation

Students work in small groups to create a short presentation explaining how harvesting and fire management work together to support a healthy and sustainable forest.



- Requirements:
 1. Include at least two examples from the episode
 2. Explain one harvesting practice and one fire management practice
 3. Describe how these practices support ecological health and sustainability
 4. Use at least one vocabulary term from the lesson
 5. Presentation format options:
 - Poster
 - Slides
 - Verbal presentation with notes
- Evaluation criteria
 1. Use of evidence from the episode
 2. Clarity and accuracy of explanation
 3. Connection between systems (harvesting and fire management)
 4. Group collaboration and participation

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](#)