

Lesson Ten



The Wisconsin Forestry Summit



CONCEPTS

1. Many topics in forestry throughout Wisconsin, the U.S., and the world are controversial.
2. Many people have different opinions about these topics.
3. To better understand controversial topics involving people and the environment, it is important to use the knowledge that you have and look at the topic from all of the differing viewpoints.

OBJECTIVES

Students will be able to:

1. Use the information they have acquired to analyze and discuss selected controversial topics in forestry.
2. Redefine and expand on their original conceptual image and definition of 'forest'.

TEACHING SITE

Indoor classroom where desks or chairs can be arranged in a circle

MATERIALS

List of summit questions; overheads of supporting pictures/quotes; chalkboard/chalk or large easel pad and pen

LESSON TIME

One 50-minute class period

NUTSHELL

Students will participate in a culminating summit regarding Wisconsin forestry. They will synthesize their knowledge of forestry in order to discuss topics affecting Wisconsin forests and forests throughout the country and the world.

TEACHER PREPARATION

Read through summit questions. Make overheads of the pictures/quotes/statistics included for each question. Arrange desks/chairs in a circle to facilitate discussion.

ACTIVITIES

Wisconsin Forestry Summit (30-35 minutes)

Welcome students to the Wisconsin Forestry Summit.

Tell the students that many state, national, and global summits happen each year on topics such as climate change, agriculture, pollution, biodiversity, and forestry.

A summit is a meeting organized by professional scientists, teachers, historians, political leaders, and many others in order to discuss and come to decisions on controversial topics that affect all of us.

Tell the class that today they will be discussing a few controversial issues in forestry. Tell the class that this will be their final day of forestry research. Ask them to think back to all of the lessons that they have done involving forestry. Have the students go through their log books and briefly review the subjects that they have covered. Tell the class that they will be discussing a variety of questions during the summit that will require them to reflect on the knowledge that they have developed during this unit.

Start by encouraging students to ask any and all questions that they have from the material that you have covered. After the questions are exhausted, inform the students that on this final day they will attempt to discuss and understand a few of the most important topics in forestry today. Explain the summit rules to your students (*these are merely suggestions; add or subtract to this list to fit your situation*):

- One person speaks at a time
- Give the speaker your respect and attention
- All students are expected to participate during the summit
- Raise your hand to speak

Once students are fully aware of the rules and ready to begin, introduce the first topic. As you read through and discuss the questions, make sure that the picture or quote associated with that question is on the overhead. Give students time to discuss each topic thoroughly. Play devil's advocate with your students - they should be able to defend their thoughts on a topic. Try to get through as many questions as possible, choosing from the four options below. Be sure to leave enough time at the end of class for the last two activities.

SUBJECTS AND QUESTIONS FOR THE WISCONSIN FORESTRY SUMMIT

1) Population and Sustainable Forestry – Population Growth Overhead

Put the **Population Growth Overhead** on the projector. Ask the class to read the overhead. Help them to understand that many places in the world are growing much faster than Wisconsin or even the United States. Ask the class if they think that there are more people in Wisconsin now than when the settlers came, during the Depression, or when they were younger. Have them think back to sustainable harvesting in forestry. Review the subject explaining that the sustainable cutting rate will supply a constant supply of timber from a forest into the future. Ask the class if they can remember what happens to the supply of timber if the cutting rate is too fast. *It will eventually run out.* Ask the class how the overhead and sustainable harvesting are related. *The more people we are, the more resources we will require. A constant and lasting supply of timber can only support a constant population.*

Have the students analyze the scenario to determine if population growth affects our forests. What about the land required to grow our food? For people to build houses on? Ask the class what solutions they can think of. *Use less resources, land, etc. per person. Grow our forests at a faster rate and cut at a faster rate. Reduce population growth rates. Import wood from other countries (is this sustainable?)* Discuss the topic in any amount of detail until ideas are exhausted.

2) All cut or no cut and the plantation debate – Plantation/Natural Forest Overhead and the Who owns Wisconsin's Forest Pie Chart from the Management Lesson

Use the last discussion to lead into a debate on zero-cut or all-cut forestry. Ask students if logging all of our state and/or national forests is an adequate way to increase the supply of lumber and people employed and economic output. Can logging more forests support the needs of a growing population? What would we lose by logging all of our forests? *All of our other values (aesthetic, recreational, cultural, egocentric, ecological, etc.)* Where would we go to hike and mountain bike? What would happen to our wildlife (fishers, neotropical birds, timber wolves, black bears)? What about diversity and climate and soil erosion?

Now ask the class what might happen if we were to preserve all of our nation's forests. What about the products the forest produces? The jobs involved in forestry? The income the state makes from forestry practices? Use the **Who Owns Wisconsin's Forest Pie Chart** to show the percentages of state, federal, and county land that would

become unmanaged for forestry. Use statistics from the utility lesson to show the amount of jobs and money that the state would lose. Ask the class to discuss the results of each extreme.

Put the Plantation/Natural Forest Transparency on the overhead. Ask the class what the differences between these two forests are. *Structure, composition, diversity, uses, animal habitat, aesthetics.* Ask the class which pictures they think is more beautiful. Which forest provides the most animal habitat? *Natural.* Which forest is better for soil and water quality? *Natural.* Ask them which one produces more wood for timber. *Plantation.* Have the class brainstorm and discuss the relationships between plantations and natural forests. *Plantations are used to produce large amounts of timber from small amounts of land.* If we can supply our timber needs with plantations, is logging in the remaining natural forests necessary? *The more wood we produce from plantations, the less that natural forests must be logged. The more wood we produce, the less we will have to import from other countries.* Are other countries using forestry practices that are destroying the environment (tie-in to tropical rain forests)? When are there enough forest plantations? When are there too many?

3) **Time and Place of Forest Disturbance – Quotes from Dr. Patrick Moore and Greg Closter and the Clearcut photo as overheads**

Place the **Clearcut Photo** on the overhead and have the students discuss the picture. Is it pretty? What kind of animals would live there? Would you want to go hiking there? Does it make you angry? Where did all of that wood go? Who made money from that wood? Use the quotes to convey the opinions regarding logging and clearcutting. Discuss each quote using the information that students have learned about cutting methods and our logging history. Have them talk about what happens to forests after a clearcut. Is it permanent? Ask them if all clearcutting is harmful to the environment. Is clearcutting misused? What might the differences be between clearcutting aspen in Wisconsin and clearcutting Old Growth Forests on the mountain sides of Oregon and Washington? What about the clearcutting of the tropical rain forests?

4) **Wisconsin Logging History and Rainforest Logging Today – Wisconsin Loggers/Tropical Loggers Photos Overhead, Tropical Forests Overhead, and Unlogged Forests Overhead**

Ask students if they have ever heard of the tropical rain forests. What have they heard? Have students discuss the logging of the rainforests and all they have heard about it. Use the overhead of the **Unlogging Forests in the U.S.** to show the amount of forests that we have logged over time. Point out Wisconsin and show the unlogged forest that are left. *None.* Ask students to discuss the consequences and benefits of that logging and the way that we view and use our forests.

Put up the **Tropical Forests Overhead** and point out the rain forests on each of the continent. *The gray areas confined around the equator.* Read the statistics on the bottom of the sheet. Ask students why they think people are logging the rainforests and what impacts it is having.

Put the Wisconsin Loggers/Tropical Loggers Photo on the overhead. Ask the class to compare and contrast the two photographs. Ask them what would have happened if

we had been stopped before we logged our forests. Would our economics, forests, homes, jobs, be different? Why did we log our forests? How did it help us today? Why are the people in the tropics logging their forests? *To clear land for agriculture, to use wood for heat and energy, to build homes, to sell the logs to other countries, to try to support a growing human population.* Are they selling products to the U.S.? Are we using wood products from the rain forests? What consequences and benefits resulted from the logging of our forests? How can we help the people in the tropics and help the forests at the same time?

Summit Wrap-Up

Tell the class that many questions are still not answered about forestry and that new questions are always being asked. The most important thing is that they judge the issues in forestry today and the future with the knowledge that they have gained while using all of the values that they have learned. A knowledgeable decision is the most correct decision.

Concept Mapping (10 minutes)

After the summit discussion has concluded, tell students that they are going to do an activity with which they are familiar. This is a way for students to see how much they have learned during the course of the Forestree Unit. Ask them “What do you think of when you hear the word forest?” This is the same question they were asked at the beginning of the unit. Once again, as they brainstorm answers, write them on the chalkboard or on an easel pad. As you add each idea or word, try to group words based on concepts as you did in Lesson One. Make sure all words lead back to the word *forest* in the middle. Encourage students to think back over the last 10 lessons as they brainstorm. Once all ideas have been exhausted, pull out the first concept map they made. Compare the two (the last concept map should be much larger)—how much have students learned during this unit?

Conclusion - Redefining the Forest (5-10 minutes)

Tell students that, as evidenced by their summit discussions and concept mapping, they have learned a lot about Wisconsin forestry. Some of their perceptions of a forest and its uses may have changed over the last 10 lessons. Ask students to get out their log books. Tell them that their last assignment for the Wisconsin Forestree Unit is to rewrite their definition of a forest. They are not allowed to look at the definitions written at the beginning of the unit. Give students a few minutes to write a definition of a forest. Once everyone is finished, have them go back and read their first definition of a forest. Ask students how their definitions compared. Were the definitions the same or different? What did they learn about forestry over the course of the Forestree Unit?

LOG BOOK

Have students write a short paragraph answering the question “How can you use the knowledge and skills you developed during the Wisconsin Forestree Unit throughout your life?”

SEEDS TO GROW

As an extension, students can pick a topic discussed in the summit. They can investigate this topic using library and Internet resources to answer the questions covered in the summit in more detail. Students can prepare a report on this topic or make a presentation to the class.

Web Links

World Forest Institute— <http://www.vpm.com/wfi/>

Temperate Forest Foundation— <http://www.forestinfo.org/CoolFacts/fromtree.htm>

Wisconsin Forest Resource Education Alliance— <http://www.wfrea.org>

The Food and Agriculture Organization— www.fao.org/forestry

The State of the World's Forests— <http://www.fao.org/forestry/fo/sofo/sofo99/sofo99-e.stm>

Environmental News Service— [Http://ens.lycos.com](http://ens.lycos.com)

References

Berger, John J. 1998, Understanding Forests. Sierra Club Publication.

Durning, Alan Thein. 1993. Saving the Forests: What Will it Take? World Watch Paper 117.

Edwards, Margaret et al. 1997. Global Environmental Change: Deforestation. National Science Teachers Association. Arlington, Virginia.

Patent, Dorothy Hinshaw. 1996. Biodiversity. Clarion Books. New York.



Population Growth

In the seconds it takes you to read this sentence, 24 people will be added to the Earth's population.

Before you finish reading these paragraphs, that number will reach about 430. Within an hour ... 11,000. In one day ... 260,000.

Two nights from now, the growth in human numbers will be enough to fill a city the size of San Francisco.

At the beginning of the year 2000, our population was estimated to be 6 billion people. We are increasing by 95 million people every year.

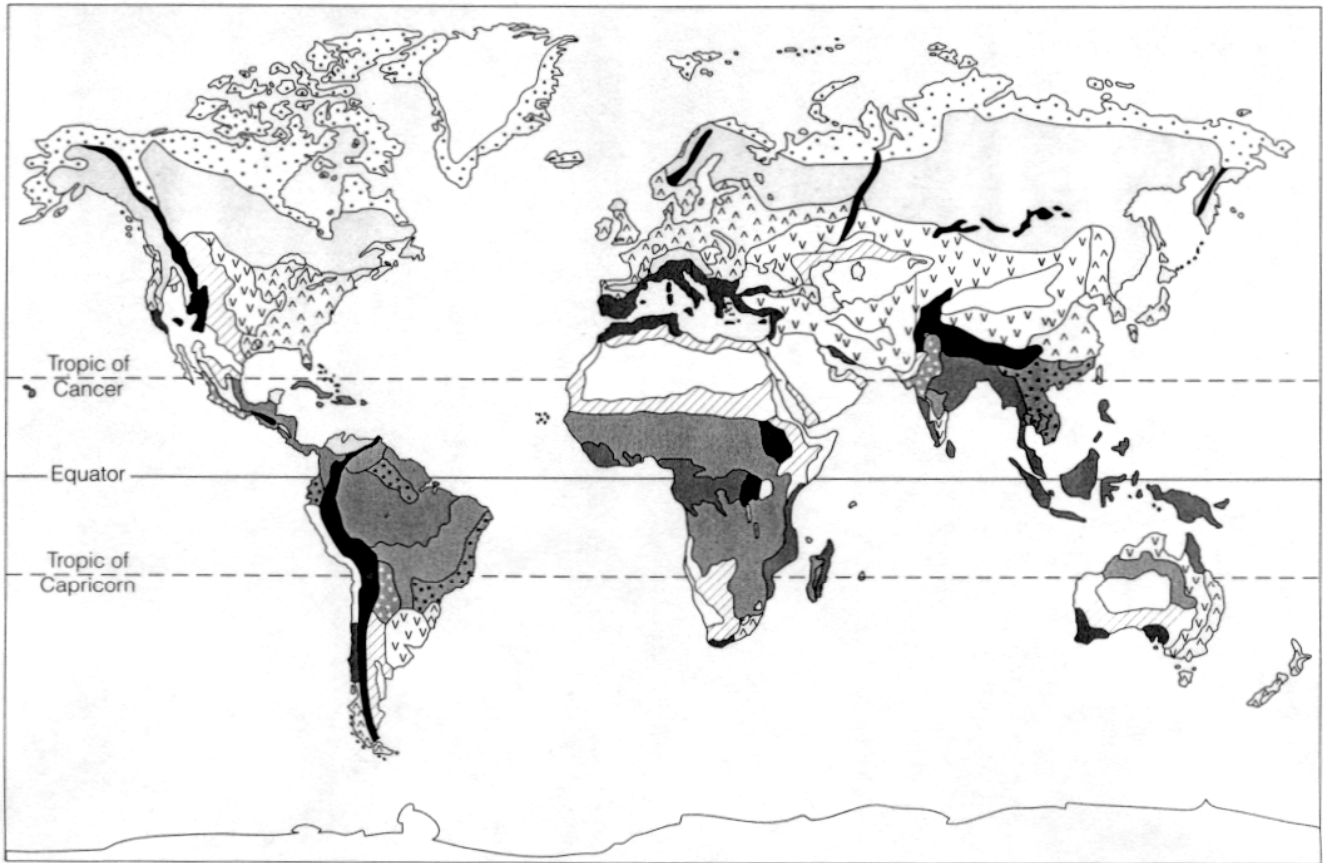
“The Sierra Club says, ‘You don’t need a professional forester to tell you if a forest is mismanaged – if a forest appears to be mismanaged, it is mismanaged.’ They want you to believe that the ugly appearance of a recently harvested forest means permanent destruction of the environment. And yet, the unsightly sea of stumps is not nuclear waste or toxic chemicals. It is 100% organic and will soon grow back to a beautiful new forest again.”

- Dr. Patrick Moore, 1999
- *a founder of Greenpeace*

"Foremost, I'd like to state that no matter what anyone says, the one, and only benefit of clear cutting is economics - bringing in machinery and tearing up everything in your way is the fastest, most efficient, cheapest way to harvest timber, period. Anyone who believes otherwise probably believes that 'peace keeping mission' and 'war' are the same. So, let's not argue about clear cutting being beneficial to the environment in any way, shape, or form - it just doesn't wash."

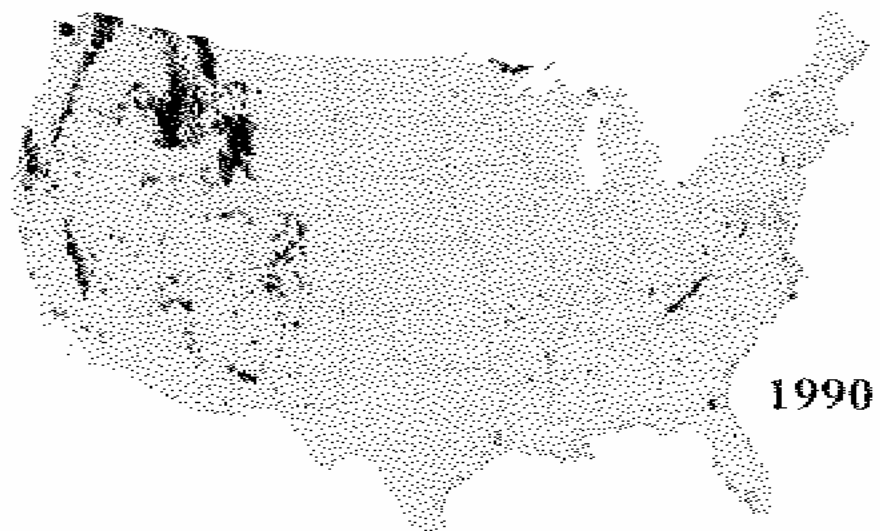
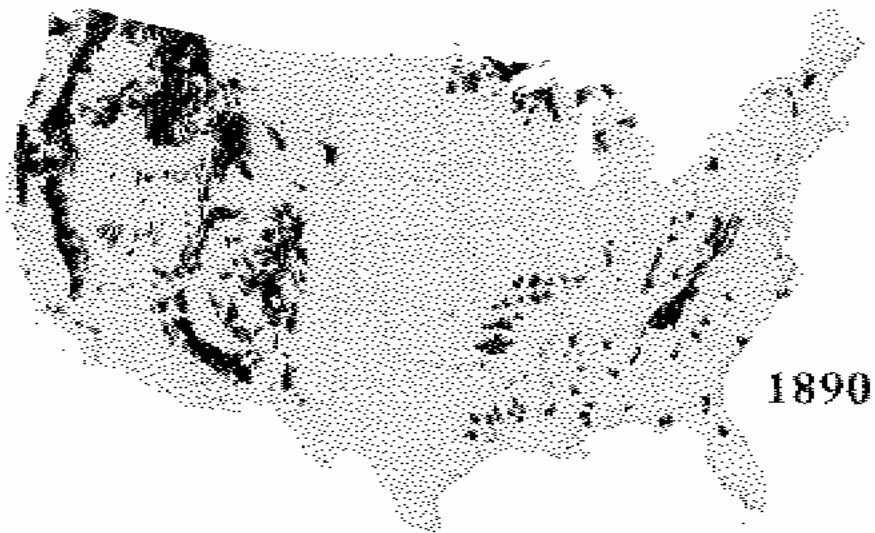
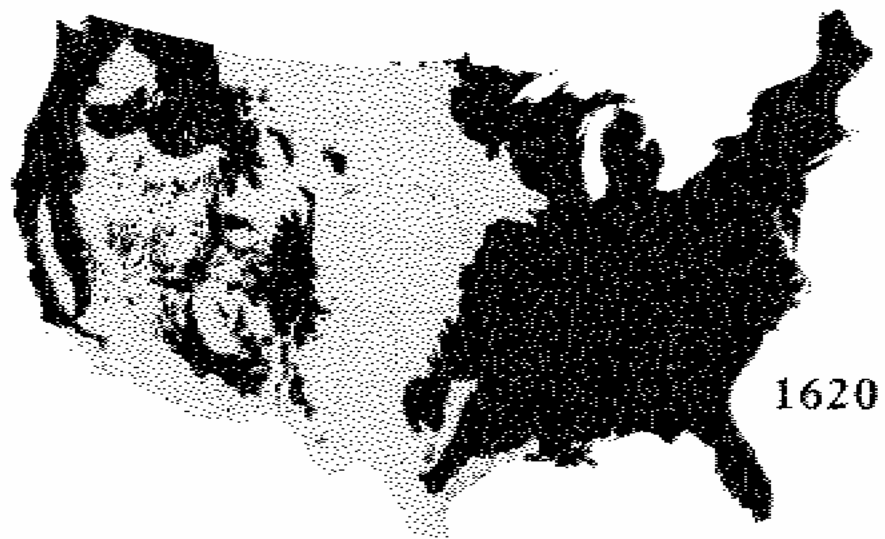
Greg Closter
'The Battle for the Northwoods'


Tropical Forests



Area of the World's Tropical Rainforest Before Logging
= 6.2 million square miles

Area of the World's Tropical Rainforest in 1999
= 2.1 million square miles



 **Unlogged Forests**

Rainforest Loggers and Wisconsin Loggers



K. Amman



Clearcuts



Plantations and Natural Forests

