

Title of Lesson Plan	Forest Management Techniques and Practices
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City and State	Farmington CT.
Grade Level(s)	Grades 10-11-12 Residential Construction Course
Keywords (subjects covered)	All Aged or Uneven Aged Management, Clear Cut Harvest, Even Aged Management, Forest Management and Best Management Practices (BMP's)
Brief Description	The lesson will cover the various types of forest management techniques currently being utilized in the Catskill Region of NY .In addition the components of a Forest Management Plan will be discussed as well as the different harvesting choices currently being utilized to get the most out of a particular Block of trees while still utilizing the appropriate BMP's.
Total Time Required	Two 42 minute class periods
Setting	Classroom Setting
Lesson Objectives/Goals	<p>The students will be able differentiate between the various types of forest management currently being utilized in New York State.</p> <p>The student will be able to list numerous examples of BMP's and how they are adhered to by the lumbering industry.</p> <p>The student will be able to discuss how Sustainable forestry has had an impact the environment.</p> <p>The students will be able to identify by sight various samples of hardwoods and softwoods currently being harvested in the Catskill region of NY state.</p> <p>The student will be able to explain the various components of a well written Forestry Management Plan.</p> <p>The student will be able to give the characteristics of various products currently being used in the construction industry.(IE MDF, Plywood, Dimensional lumber, rough cut hardwoods, Flake board—etc)</p> <p>The student will able to explain how bugs and animals can make it very difficult to re-plant a section of clear cut harvested forest.</p>
Materials Needed	<p>Samples of various types of wood species currently being harvested in the Catskill region of New York State, Map of the area, teacher constructed Forest Management quiz and DVD on Lumber Harvesting and processing. Samples of various types of wood based products currently being utilized in residential construction.</p> <p>Also an actual Forestry Management Plan will be utilized and discussed during the lesson.</p>
Standards Addressed	<p>State of Connecticut Technology Education Standards</p> <p>Explore and identify the personal, societal, economic and environmental aspects of a technological system</p> <p>Identify positive and negative aspects of various types of Technology</p> <p>Identify career opportunities in the area of forestry and the lumber industry</p> <p>List the techniques used to extract raw materials from the environment</p> <p>Differentiate between primary and secondary raw materials</p> <p>Explore the methods used to convert raw and recycled</p>

	materials into usable products Explore the principles of manual material processing techniques
Procedure	<ul style="list-style-type: none"> • Lesson will begin with the utilization of large scale map of the Catskill region of New York State. • Discussion on what is involved in the characteristics of a typical forest in the area. • What are the characteristics of the various types of hard and soft woods native to the area? (Samples will display and then passed around the class.) • Discussion on how a forest management plan can help to sustain a stand of trees. • What are the minimum components of a typical forest management plan? • When is a clear cut harvest necessary to promote the future growth of a forest? • Explanation of how an all aged plan help to increase the net worth of a stand of trees. • What are considerations when selecting an even aged management system of management? • Why it is important for BMP's to be used when harvesting takes place? • What the most common BMP's currently being utilized by the lumber industry in the Catskill region of NY? • How do fluctuations in the lumber market affect the selection of a particular timber management plan? • Once a particular species of tree is harvested, how is it utilized in the manufacture of various wood products? • How has the introduction of wood by products helped to actually save trees? (MDF, Flake, TGI's, Microlam beams ETC) • What is the outlook for the forestry industry in the next ten years? • How does a student become a forester?
Assessment	Assessment will be based on student feedback during the lesson as well as how well students perform on a quiz based on Forest Management and Harvesting techniques. In addition there will be several questions on the mid-term exam related to this material.
Literature Cited/References	Temperate Forest Foundation Glossary of Terms, Modern Carpentry Textbook and Teacher Resource Guide, Temperate Forest Foundation web-site, Hand outs from the 2009 Northeast Teacher Forestry Tour
Forestry Tour Attended	2009 Northeast Teacher Forestry Tour

Lesson Plan Disclaimer

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