

<b>Title of Lesson Plan</b>	The Miracle Resource - From Forest to Products
<b>Prepared By</b>	Thomas Reardon
<b>City and State</b>	Cheshire, MA
<b>Grade Level(s)</b>	6-8
<b>Keywords (subjects covered)</b>	Technology
<b>Brief Description</b>	<p>Forests can be found in all regions capable of sustaining tree growth, except where natural fire frequency is too high, or where the environment has been impaired by natural processes or by human activities. The forest is much like a factory where trees are manufactured. Forest land provides a wide range of environmental, societal, and economic benefits.</p> <p>We too often take our forests for granted, enjoying them as a scenic backdrop to our everyday lives, but not giving much thought to the many ways in which they benefit us. We are all consumers of wood and wood products. We are now using science and technology to produce superior forest products such as lumber, engineered wood products, paper, and by-products with very little waste or pollution.</p>
<b>Total Time Required</b>	2-3 Class periods
<b>Setting</b>	The students will be working in groups of 4, have enough newspapers and magazines, construction paper, scissors, and glue for each group.
<b>Lesson Objectives/Goals</b>	<p>Students will be able to:</p> <ul style="list-style-type: none"> <li>Differentiate softwoods from hardwoods.</li> <li>Describe solid wood products.</li> <li>Describe engineered wood products.</li> <li>Explain wood pulp products.</li> <li>Explain paper products uses.</li> <li>Explain by-products</li> </ul>
<b>Materials Needed</b>	<p>Pencils  Construction paper / Poster board (one for each group)  Magazines/newspaper (pictures of wood products)  Scissors  Glue sticks/bottles</p>
<b>Standards Addressed</b>	<p>Massachusetts Curriculum Frameworks Addressed:</p> <p>Technology/Engineering</p> <ol style="list-style-type: none"> <li>1 Materials and Tools; 1.1, 1.2, 1.3</li> <li>2 Engineering Design; 2.1, 2.3, 2.4, 2.5, 2.6</li> <li>4. Manufacturing Technologies; 4.1, 4.2, 4.3, 4.4</li> <li>5. Construction Technologies; 5.1</li> <li>6. Transportation Technologies; 6.2</li> </ol>
<b>Procedure</b>	The students will have a copy of the directions on the requirements for their poster board and the worksheet to list their product and wood type.

1. All of the students read the hand out “**The Miracle Resource**” pages 1 and 2 only.
2. Explain to the students that they will be working in groups to read the remainder of the handout. Each group reads one section from the remainder of the pamphlet, either Solid Wood Products, Engineered Wood Products, Wood Pulp, Paper Products, or By-Products. The students will be responsible for teaching the class the information in their section. The groups should report: the section title, an explanation of the wood type and examples of products that may be made from the wood, and four facts.
3. Allow time for each group to present their information. Then read the remainder of “The Miracle Resource” together. Ask students if there are any questions before going onto the next activity. Explain that the students will be working in groups again. Each group will now create a collage on poster board portraying the topic of their reading.
4. After each group has completed allow each to share with the class. The groups may quiz each other about the items on their poster or what it might have been made from.
5. Ask the students to share any new information they might have learned through the lesson.

*The Miracle Resource Poster*

Directions: You will be creating a collage of wood products. Your group will be looking through magazines and newspapers to find wood products. Your group will cut out the wood products and glue them onto the poster board. Your group will need to determine what wood type the product was made of. List each product on the miracle resource product/wood type sheet.

Steps:

- ❖ Assign each member a job. Someone is in charge of: looking, cutting, gluing, and writing. Allow each member to find one product then assigned person should continue while the other begin their job.
- ❖ Begin creating your collage.
- ❖ Write down each product and what it may have been made from (ex. Ice cream = wood chemicals)
- ❖ You should create a legend to identify the products ‘written’ to the pictures on the collage. For example No.1 labeled on the collage should be listed as No. 1 on the paper with the ‘product’ name the ‘product’ type it

	<p>represents.</p> <ul style="list-style-type: none"> <li>❖ Your group should create a title.</li> <li>❖ Write each group members name on the back of the poster board.</li> <li>❖ After you have completed the collage you will be presenting it to the class.</li> <li>❖ You may ask other students to provide the names of products and how they may have been made.</li> </ul>
<b>Assessment</b>	<p><b><u>Assessment:</u></b>  Students will be assessed and evaluated through participation during the reading, discussions and activity.  Poster will be scored by a poster-scoring rubric.</p>
<b>Literature Cited/References</b>	<p><i>Eco-Link</i> - The Miracle Resource Volume 14, Number 1  Newspapers, Magazines</p>
<b>Forestry Tour Attended</b>	<p>Northeast, 2008</p>

- The Temperate Forest Foundation reserves the right to modify, revise, and reformat lesson plans for quality and appropriateness.
- Lesson plans submitted to us may be hosted on our web site: [www.forestinfo.org](http://www.forestinfo.org) and may be shared with other teachers across the nation.
- Lesson plans are for individual classroom and educational use only. We reserve the right to publish lesson plans and lesson plan summaries on any of the Temperate Forest Foundation's publications (emails, newsletters, etc.).