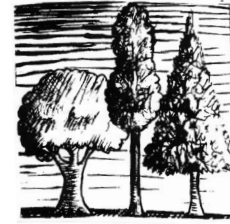


Exploring Trees and Woods Around Me



Lesson 2

Grades: Fourth and Up

Overview of Lesson: In this lesson, students become aware of the abundance of trees and types of wood used in furniture-making in the South and other parts of the United States. They explore wooded areas near their schools where they take samples (i.e., leaves, branches, and nuts) from as many different mature trees as possible. Then they bring them back to the classroom for identification and further study.

Estimated No. of Class Periods: 2

Resources/Materials in Kit:

- 1) Wood Samples of common Southern trees .
- 2) *Fine Hardwoods Selectorama*; Tree Identification Resources: *Fandex Family Field Guide*.
- 3) Handouts: *Wood Identification*; Excerpt from *Furniture of Coastal North Carolina 1700 - 1820* by John Bivins, published by the Museum of Early Southern Decorative Arts in 1988; *Assessment Checklist: Understanding Trees and Wood*
- 4) *A Resource Guide for Teachers and Students* developed by the Furniture Discovery Center, pp. 10-13; Appendices V, VI, and VII.
The Center serves “as a hands-on educational center for the home furnishings industry and to enlighten and inform the public about the design, manufacturing and marketing of home furnishings.” The *Resource Guide* is especially targeted to the elementary grades and can be used with field trips to the Furniture Discovery Center.

Resources/Materials to Get:

- 1) Paper, pencils, markers, rulers, waxed paper, pocket knives, scissors, coolers and other tools necessary for removing, storing and recording samples taken from live trees the students examine.
- 2) Information about common trees in your state. Contact your state forestry service or similar agencies for helpful resources.

Web Resources:

There are many Web sites on the topics of this lesson. Try a search on “hardwood,” “softwood” or “tree.”

Prerequisites: None

Focus Questions

- What trees are in the area where I live?
- What kinds of woods were traditionally used in furniture-making in my region today? How do these compare with the trees and woods of the South?
- What woods are used in furniture-making today?

Learning Outcomes

After completing this lesson, students should be able to:

- recognize deciduous and coniferous trees
- identify samples of hardwood and softwood
- define primary wood and secondary wood
- identify some woods prevalent in traditional Southern furniture
- define these terms: texture, grain, color, odor, weight, and hardness
- identify types of woods located in the vicinity of the school and identify their uses in the furniture industry or other applications
- distinguish the term “case goods” from “upholstered goods”

Vocabulary

case goods - Originally, case goods meant furniture that contained interior storage, but today it refers to wood furniture *without upholstery* including tables, dressers, desks, bookcases, etc.

coniferous - a soft wood evergreen tree that bears cones (i.e. pine)

deciduous - a hard wood tree that bears fruit and nuts and has leaves in the spring and summer (i.e. walnut, cherry, oak, poplar)

evergreen - a kind of tree whose leaves remain green all year round

hardwood - the rigid, durable wood of a deciduous tree used in fine furniture

mahogany - the reddish brown or yellowish brown wood of trees often found in tropical climates; it was a major imported wood in traditional fine furniture making; Thomas Day was known for his use of mahogany veneers.

primary wood - the most visible and major wood used in a piece of furniture

secondary wood - the less prominent wood in a piece of furniture that usually serves a structural or supporting function, like the wood used in drawer bottoms.

softwood - the wood of a coniferous tree, usually pliable

upholstered goods - furniture such as sofas, love seats or chairs that have cushioned fabric attached

veneer - a very thin layer of fine hardwood of superior appearance or value that is glued or bonded to another piece of wood

For more definitions see: *A Resource Guide for Teachers and Students (Furniture Discovery Center) pp. 6-7* ; Fine Hardwoods Selectorama *and Wood Identification Handout*

Suggested Instructional Steps

1. Introduce the lesson and review learning outcomes. Explain that the best way to find out about trees and woods is to go outdoors where they are and collect samples!
2. Take students outside to a group of trees on the school's campus or to a nearby park or forested area. If this is not possible, have students collect samples as homework. They should collect leaves, nuts, branches, etc., from as many types of mature trees as they can. Ask them to draw sketches of the trees they find and to clearly note which samples go with which tree sketch. (*Note: After students bring samples to the classroom, this is a natural point to BREAK the lesson ; then , continue at the next session) with step 3)*
3. Set up stations for trees commonly used in traditional furniture. Walnut, cherry, yellow pine, ash, poplar, oak, hickory, cedar and maple samples are provided in the kit. You may want to add examples of wood used especially in your region. Each station should have visuals of each major tree type photocopied from the field guide. Also place wood samples at each station. (See: Handout: Excerpt from John Bivins book for other woods used in North Carolina furniture: *The Furniture of Eastern North Carolina 1700 - 1820*)
4. Have students match their drawings and samples and place them on the appropriate "tree" table.
5. Have the students "tour" the tree stations and observe and record information about the various features of the wood: i.e., wood grain (which kind of wood has long, straight grains, short grains, or knots?); weight (compare weight of oak to soft pine or poplar); Hardness, (See: *Wood Identification Hand-Out*). The information on the samples gathered may also be entered in a computer database.
6. Introduce the terms "hardwood" and "softwood" and have students categorize the samples. Explain that hardwoods are naturally strong and are from "deciduous trees." They are mostly used in fine furniture. Softwoods are from "evergreen" or "coniferous" trees like pine. Yellow pine, which actually included four varieties of pine, was the most common *coniferous* tree used in traditional Southern furniture. It was especially popular as a secondary wood.

Assessment

See the handout: *Understanding Trees and Woods Checklist*

Extensions

- Ask students to examine a piece of wood furniture in their homes and to describe in writing the wood's texture, grain, weight, hardness, etc. Is it solid wood or made of plywood / composites? Is it made of more than one kind of wood? Is veneer used? Have students bring the descriptive information they have gathered back to the classroom. They may use the wood identification resources in the Furniture Kit to help identify the type of wood(s) used in furniture in their homes and then write a research report that explains their

methodology and findings. It might address:

- What type(s) of furniture did I look at?
- Which wood features helped to identify the wood?
- What resources (books, pictures) were used to help identify the wood?
- Where in the world is the wood from? (The *Selectorama* includes woods from all over the world).

This activity should be assessed on the basis of the student's ability to:

- accurately identify the wood used in the piece of furniture
 - describe in detail the features of the wood
 - document in written report the research process and findings.
- Ask teams of students to create a computer database of the different wood samples brought to class; include data about number of samples for each tree type; descriptive data about features, i.e., hardwood or softwood; and data about uses of the trees in the furniture industry or other application. Trade databases with a group of students in another part of your state or in a different region of the country. What are the differences in types of tree samples collected in different regions?
 - Make photocopies of the "Wood Trivia" page (See: Appendix V. Furniture Discovery Center's *Resource Guide*). Have students work in teams to answer the questions. Encourage students to use the Internet, library, and interviews with local forestry and furniture experts. *Be sure students don't peek at the Answer Key!* When presenting their answers, make sure students share their research methods and sources of information.
 - Ask students to analyze the costs (negatives) and benefits (positives) of harvesting trees in environmentally sensitive areas like rain forests, flood plains, designated wilderness areas, etc. Students may research this issues on the Web by searching on words such as: "bio-mass," "natural resources" and "ecology." If this is an issue of particular relevance in your state or region, use it as a case study.