Goods from the Woods

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Title: Goods from the Woods

Developed by:
Beth Bubacz Nichols, Extension Educator
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Objectives: 1. Review Parts of the Tree
2. Identify products derived from trees
3. Develop communication and discussion making skills through group/partner activities.

Materials: Goods from the Woods Box and interactive poster
"Parts of the Tree" poster from the North Carolina Forestry Association
"The Giving Tree" by Shel Siverstein

Procedure:	**Activity:**
1. Review the parts of the tree	1. Have children stand and become trees. Their fingers are leaves, their arms are branches, the body is the trunk, their toes are roots and their skin is bark.

Literature Activity: Read students "The Giving Tree" by Shel Silverstein. And discuss how one tree was used in many different ways.

2. Show students items in the Goods from the Woods activity box	2. Show students each item and have them record on the Goods from the Woods interactive poster which items they believe made from trees. Use smiling faces (yes) and frowning faces (no).
3. Ask the students if all these products come from the same part of the tree?	3. **ALL items in box are made from some part of a tree
Discuss with the students the parts of the tree each product contains	*Information provided in the Goods from the Woods packet. Have students come to the front of the group holding the products. Call the up by tree parts. For example: Will the crayons and lipstick come forward. And explain how they contain the wax from the leaves of trees.
4. Pass out tree ID worksheet	4. Students color and label parts of the tree. As well as write a sentence about what they learned cam from a tree.

Additional Activities: Teacher: write the names of other products we use from trees on the board, have children stand next to different tree products located in your classroom or play "I spy" and have students tell their classmates what the see and which part of the tree the product came from.

Example: Products

pencils	paper	chairs	toys	door
baskets	fruit	books	desks	cubbies

Post Lesson Activity: Identify a mystery item left behind for students to figure out how it comes from a tree. Example: Toothpaste. Objective is to decide what part of the tree is used in toothpaste and why. Class will complete a worksheet reflecting their findings.

Assessments: Pre and Post worksheet where student circle items pictured that come from a tree. Two of the ten items pictured are not from trees.

Updated 9/2008

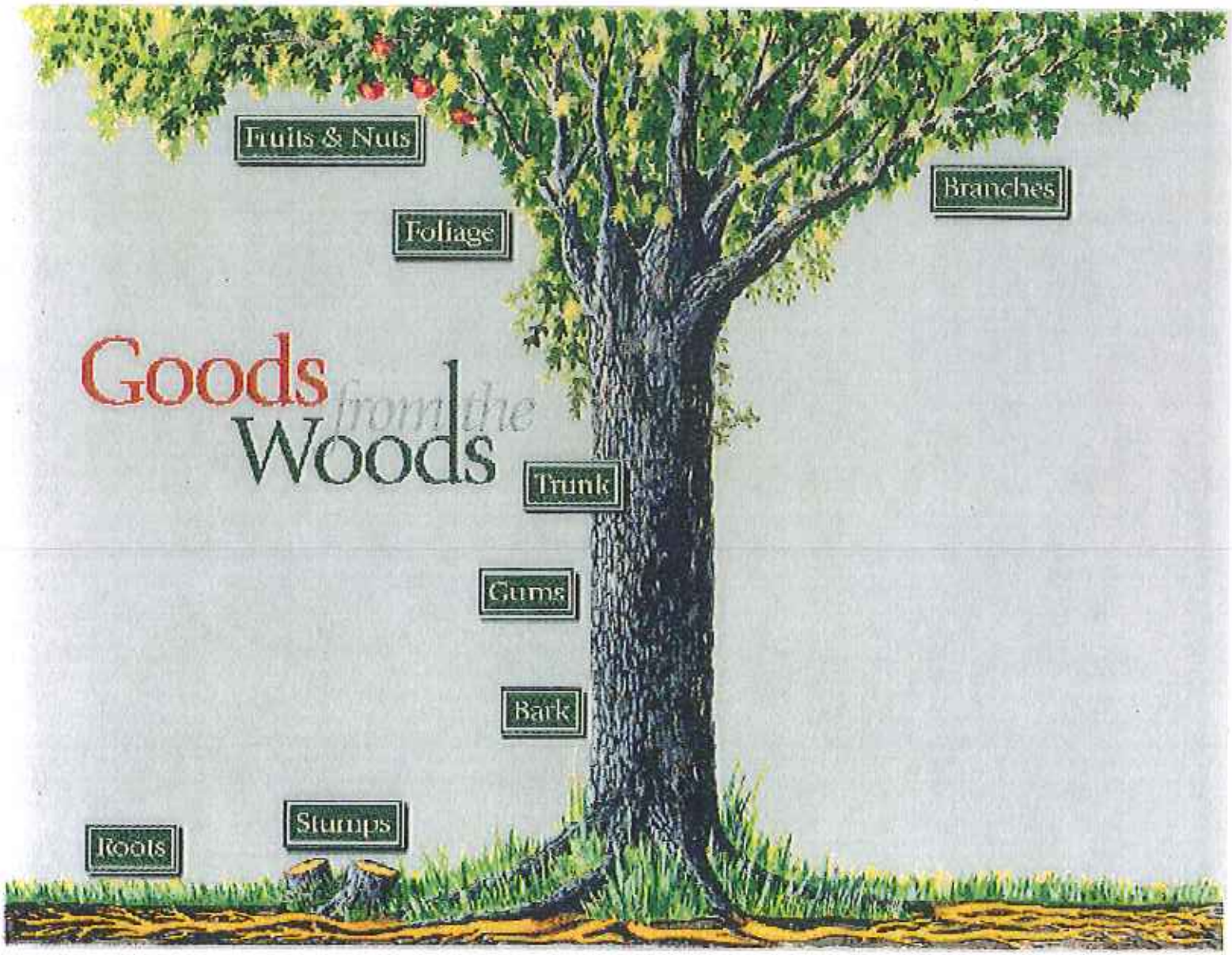
Goods from the Woods

1. Coffee packets
2. Apple
3. Crayons
4. Lipstick
5. Kleenex packets
6. Toothbrushes
7. Cinnamon
8. Shoe polish
9. Shampoo
10. Band-Aids
11. Orange soda
12. Pencil
13. Toothpicks
14. Sponge
15. Rubber Bands
16. Post-it Notes
17. Chewing gum

Goods From the Woods

Coffee packet		
Apple		
Orange soda		
Crayons		
Lipstick		
Kleenex tissue		
Toothbrush		
Cinnamon		
Shoe polish		
Shampoo		
Band-Aids		
Pencil		
Toothpicks		
Sponge		
Chewing gum		
Rubber Bands		
Post-it Notes		

(Interactive Poster 24" x 36")



Reference:
North Carolina Forestry Association
http://www.ncforestry.org/

Goods from the Woods

Fruits & Nuts

The fruits, nuts, berries and seeds of many trees are an important source of food for wildlife and people. Some of the most common of these are apples, peaches, pecans, walnuts, coffee and spices such as mace and nutmeg. Other fruits and nuts: oranges, pears, chestnuts.

Foliage

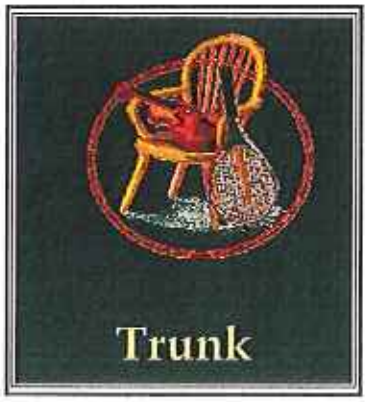
While growing on a tree, leaves produce oxygen, help filter pollutants from the air, provide shelter for many wildlife species and shade to help keep us cool. When harvested, leaves of the carnauba tree are used to produce furniture polish, car wax, crayons, lipstick and the coating on many medicine tablets. Whole leaves from some trees, such as bay, are used in cooking, while the oils of other leaves, such as the eucalyptus, are extracted for fragrances and flavorings. Other products made from foliage: garden mulch.

Branches

The branches of large trees and the trunks of smaller trees are used to make thousands of paper products, including writing paper, tissues and boxes. Chemical by-products of the paper-making process are used in producing cleaning compounds, skin lotions, artificial vanilla flavoring, photographic film and many molded plastic products such as eyeglass frames, football helmets, toothbrushes and buttons. Other products made from branches: carpeting and upholstery backing, rayon, plastic twines, computer casings, luggage, cellophane, newspapers, baby food, imitation bacon bits, cereal, colognes.

Bark

Bark is used for a variety of purposes ranging from medicine to garden mulch to seasoning for foods. The willow tree, for example, provides the essential elements of aspirin, while the laurel tree provides cinnamon used to flavor many foods. Cork for wine bottles and fishing tackle comes from the cork oak tree. Bark also is burned to produce energy and used as a dye for fabrics, shoe polishes and other products. Other products made from bark: cosmetics, poultry bedding, oil spill control agents, the cancer-fighting drug Taxol.



The trunks of trees are primarily used to make solid wood products such as furniture, musical instruments, lumber and handles for tools and sporting equipment. Trunks also are peeled into thin sheets and used as veneer for plywood and furniture. Other products made from trunks: baseball bats, charcoal, canoe paddles, guitars, swing sets, birdhouses, crutches, fences, sleds.

Gums

Gums, which are found in the sap of trees, are used in the manufacture of a variety of products including food, adhesives, paints and medicines. In foods, gums serve as thickening agents, provide a creamy texture, act as binders to keep ingredients from separating and help retain moisture. In ice cream and other frozen desserts, gums prevent the formation of crystals. The gums of some trees are used to make adhesives such as glue and hair spray, and act as drying agents in paint and printing ink. Other gums have antiseptic properties and are used in making soaps and cough syrups. Other products made from gums: cough drops, shampoo, dish washing liquid, adhesive bandages.

Pine stumps provide the wood rosin and liquid terpenes used in making many products, including orange-flavored soft drinks, pine cleaners and laundry detergents. Hardwood stumps readily produce sprouts that grow into new trees, assuring that we have plentiful hardwood forests for the future. Other products made from stumps: sports drinks.

Roots

In addition to providing food for the tree, roots play an important role in keeping our waters free of pollutants. They stabilize the soil to prevent erosion and sedimentation, and by absorbing nutrients to feed the tree, they prevent these nutrients from entering our rivers and streams. Other products made from roots: sassafras tea, root beer.

Goods from the Woods
References

http://www.ncforestry.org/index.htm
http://www.ncforestry.org/docs/Products/index.htm (link to Goods from the Woods from here.

Maryland Forests Association, Inc.
~ MFA ~

http://www.mdforests.org/index.htm

http://www.mdforests.org/forestsforever.htm

http://www.itm-info.com/arkff/

http://www.plt.org/

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Mystery Item

Toothpaste

Every toothpaste contains the following ingredients: binders, abrasives, sudsers, humectants, flavors, sweeteners, fluorides, tooth whiteners, a preservative, and water. Binders thicken toothpastes. They prevent separation of solids and liquids, especially during storage. They also affect the foam production, flavor release, product dispersal, the appearance of the toothpaste ribbon on the toothbrush, and how well the toothpaste rinses from the toothbrush. Toothpaste contains cellulose gum, a natural product derived from wood that acts as a binder and provides a creamy texture. Thickeners help to create the texture of toothpaste and determine how 'thick' your toothpaste is. Carrageenan, cellulose gum, and xanthan gum are the more common thickening agents. Toothpaste and mouthwash may also contain terpenes, chemicals derived from wood that sweeten the spearmint or peppermint flavor.

Some binders or thickeners are karaya gum, bentonite, sodium alginate, methylcellulose, carrageenan, and magnesium aluminum silicate. Gum Karaya is an extract of sterculia trees. It is used as a thickener, emulsifier and laxative in foods, and as a denture adhesive.

Website Sources:
http://www.enotes.com/how-products-encyclopedia/toothpaste
http://en.wikipedia.org/wiki/Gum_karaya
http://www.ncforestry.org/docs/Resource%20Materials/flash_cards.htm

Goods From the Woods

Mystery Item Worksheet

1. What is the product? _____

2. What part of the tree does it come from?

_____

3. Why does it have a tree in it?

_____

_____

4. Name one type of tree the product come from.

_____

5. What other products included with the mystery item game come from a tree?

_____

_____

_____

_____

Goods From the Woods

Mystery Item (Answer Key)

1. What is the product? Toothpaste

2. What part of the tree does it come from? (cellulose) gum

3. Why does it have a tree in it? It makes it thick.

4. Name one type of tree the product comes from. Any tree will do all trees contain cellulose ex. Oak, Pine, and Maple.

5. What other products included with the mystery item game come from a tree?
Box-cardboard
Sticker-paper and adhesive (sticky stuff)
Toothpaste box-paper

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End of Class / Program Reaction Form

Program Title: Goods From the Woods: _____

Instructor: _____ **Date:** _____

Please rate this class / program on its relevance, its quality, and its utility to you. To answer, circle the appropriate facial expression at the end of each question. Thank you.

	Yes	No
1. In this class, did you learn new information about trees ?	☺	☹
2. Do you think others would benefit from the information you learned today?	☺	☹

Comments: _____

_____

3. Did you learn about trees in a fun way?	☺	☹

Comments: _____

_____

4. Will you tell others about the information you learned today?	☺	☹
5. In this class, did you feel welcomed to participate and ask questions?	☺	☹
6. In this class, did you get your questions answered?	☺	☹

Comments: _____

_____

7. Overall, did you like this class?	☺	☹

Developed By: D. Inskeep

MARYLAND COOPERATIVE EXTENSION
UNIVERSITY OF MARYLAND COLLEGE PARK • EASTERN SHORE

Observation of Peer Teaching

Teacher observed: Beth B. Nichols Date: _____

Class/Program observed: _____

Observer Instructions: *1) Please answer each question. To answer, circle a number at the end of each question.*
2) Add comments, see #13.

		(Circle one number)				
		Yes, very Much so				**No, Not at all**
1.	Are you, the Observer, knowledgeable about the programmatic needs/ concerns of people in the area where this class is presented? **Circle answer: YES NO** **If YES:** 1A: Was the content, as presented, relevant to those needs?	5	4	3	2	1
2.	Was the content what the class announcement said it would be?	5	4	3	2	1
3.	Was it clear that the faculty member had a plan for the class, i.e.,					
	3A. Were intended objectives clearly demonstrated to the class?	5	4	3	2	1
	3B. Were visual/written aids used in ways that helped the audience keep up with the content?	5	4	3	2	1
4.	Are you, the Observer, current in your knowledge about the subject matter covered in the class being observed? **Circle answer: YES NO** **If YES:** 4A: Was the subject matter, as presented, current/up-to-date?	5	4	3	2	1
5.	Was the content, as presented:					
	5A. sufficient in its coverage (breadth/depth) to meet class objectives?	5	4	3	2	1
	5B. presented at an appropriate technical level?	5	4	3	2	1
6.	How many learners were in attendance? _____ What percentage of these were members of the intended audience? _____ **(Indicate "DK" if you don't know who was the intended audience.)**					
7.	Did class attendees appear interested in the presentation, i.e.,					
	7A. Did they respond easily to instructor-generated questions?	5	4	3	2	1
	7B. Did they ask questions without being prompted by the instructor?	5	4	3	2	1
8.	Did the instructor adequately answer questions posed by attendees? **(Leave this item blank if no questions were posed.)**	5	4	3	2	1
9.	Overall, did the instructor use class time efficiently?	5	4	3	2	1
10.	Were materials distributed to the attendees: **Circle answer: YES NO**					
	If YES: 10A. Were they relevant to class content?	5	4	3	2	1
	10B. Were they clear/understandable to you?	5	4	3	2	1
	10C. Do you think they helped the audience learn the class content?	5	4	3	2	1
	10D. Were they used by the audience in ways the instructor suggested?	5	4	3	2	1
11.	Identify teaching tools, other than handout materials, used by the instructor: _____ _____					
	11A. Did these other tools contribute meaningfully to the presentation?	5	4	3	2	1

12. What is your overall ranking of the instructor in this class?
Circle number Very effective 5 4 3 2 1 Not effective

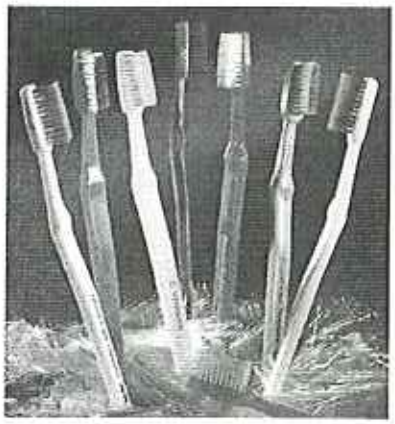
13. Describe, on the reverse side of this sheet, any changes that you think would have improved the quality/effectiveness of this instructor's teaching. Be as helpful as you can with very specific suggestions.

Signature of Observer _____

Goods from the Woods

Pre-Assessment

Circle the items below that come from a tree.



Goods From the Woods

Name: _____

Please write a sentence about a product that trees give us.

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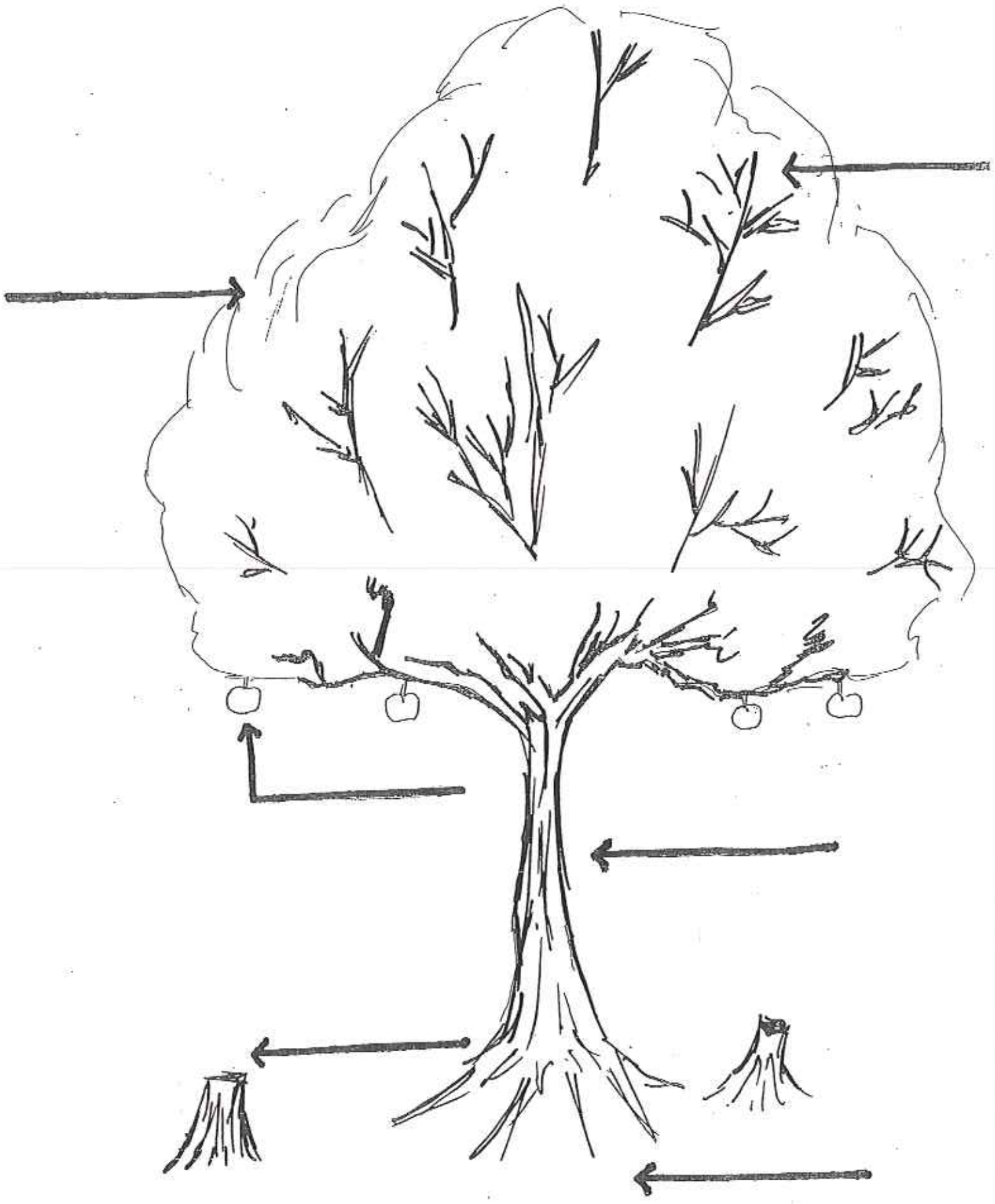
Word Bank:

Branch Leaf Apple Trunk

Roots Stump



Goods from the Woods

Post-Assessment

Circle the items below that come from a tree.