



Lesson Plan

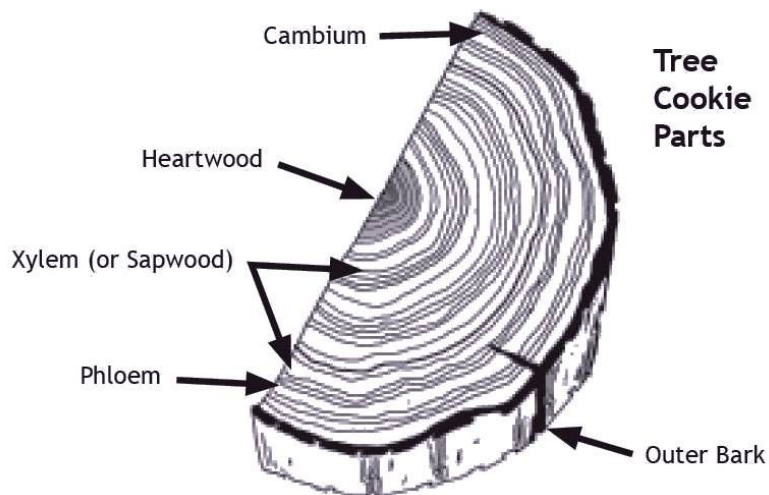
Trees & Seeds

Educational Goals

- 1.) Observing trees and plants in their own yards and neighborhoods
- 2.) Students will learn part of a tree and each part's important job for the tree
- 3.) Explore different seed types that trees have

Tree “Cookie” Activity

For this activity we will be investigating the parts of a tree. Pick up a tree “cookie,” which is a cross-section slice of a tree. Try to identify the following parts:



Count the number of rings your tree slice has from the center to the bark. That number equals the age of your tree! Decorate your tree “cookie” necklace with pictures, designs, or write your name. Sharpies are good for a more permanent necklace design, but colored pencils or washable markers work as well.



Tree Parts Explained:

Leaves - they soak up sunshine and make food for the tree.

Trunk - it supports the tree and holds the branches up so the sun can reach the leaves.

Bark - protects the tree from rain, cold, insects, disease, and sometimes even fire.

Sapwood - outermost portion of a woody stem or branch

Roots - absorb water and nutrients from the soil.

Heartwood - forms the central core of the tree. It is made up of dense dead wood, and it provides strength.

Xylem - brings water and nutrients up from the roots to the leaves. Older xylem cells become part of the heartwood.

Cambium - a very thin layer of growing tree tissue. It makes cells that become new xylem, phloem, or cambium.

Phloem - carries sap from the leaves to the rest of the tree. At certain times of the year, phloem may also move stored sugars from the roots up to the rest of the tree.

Outer Bark - protects the tree from injury caused by insects, animals, plants, diseases, and fire.



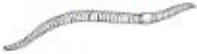







“Build a Tree”

Taken from Project Learning Tree

Using the chart below, “Build a Tree” by coming up with your own actions and chants to represent the structure and function of the tree parts reviewed above. The chart has been started to help you. Hint: The chant helps to determine the function!

STRUCTURE	FUNCTION	CHANT	ACTION
Roots	Anchor the tree, absorb water and nutrients	“We anchor!”	Lay down and hold onto the ground tight
Leaves	Make food through photosynthesis	“We make food!”	Flutter your hands
Heartwood		“I support!”	Flex your muscles
Xylem		“I pump!”	
Cambium		“I make new cells!”	
Phloem		“I carry sap!”	
Outer Bark		“I protect!”	Hold up hands or cross arms to make a shield



Fungi/Mushroom 	
Hollow Tree 	
Earth worm 	
Wildflower 	
Spider Web 	
Nut 	
Snail 	
Bird 	
Signs of Insects 	
Rocks 	

Use this scavenger hunt to make discoveries in your own backyard! You can use the second column to either check off the items you see or use tally marks to see how many of each you can find.

Things to remember:

- This is a great activity to observe nature and investigate things that you find. Please ask an adult before touching anything you find and return everything to its habitat after observation.

- All of these are commonly found in a forest habitat - a place or environment where a plant or animal naturally lives and grows.

- If you do not find everything on the list, that is ok! You can save your list and come back to it another day. Some things may be hard to find depending on the time of year. Spring is a great time to observe nature.

- If you find something you are curious about, use resources to help you with identification. Seek website by iNaturalist.org, is a great kid-friendly resource.



Tree to Seed Matching Game

Angiosperms account for about 90% of the trees on the earth. Characteristics of angiosperms are that they produce flowers and their seeds form in a protective ovary. Gymnosperms do not produce flowers and their seeds are exposed as they are in a pinecone. Go outside and see what kinds of seeds you can find!

Match the Tree (Leaf) to its Fruit

hemlock



hickory



sycamore



sugar maple



white oak



mountain ash



a



b



c



d



e



f

