

Anatomy of a Tree

All trees are made of several different layers of different types of wood that each have a different purpose to help the tree survive. The first, inner most layer is called the heartwood. This is a strong piece of wood that stabilizes the tree and helps it stand tall without falling over. The next layer is called the sapwood. This layer takes water that is sucked up by the roots and carries it upward to be dispersed, or spread out, throughout the entire tree and to the leaves. Next comes the cambium layer. This is a thin layer that is always growing and produces cells that can become new sapwood, new phloem (which we will learn about next), and even more new cambium. Thanks to the cambium adding cells and layers of wood each year, we can see a visible growth ring for each year the tree has lived. The phloem is a layer that carries the food made in the leaves by the process of photosynthesis down to the rest of the tree. Last, we have a layer of bark which protects the inside of the tree from damage.

Matching Activity

Write the letter that is with the correct answer to each of the following statements in the blank. There are more letters than there are blanks!

____ The part of the tree that carries food down the rest of the tree

____ The layer that adds new cells each year

____ The correct order of the layers from outside to inside

____ The part of the tree that would protect it from drying out or getting too cold

____ The layer of a tree that helps it stay standing tall and stable

____ The layer that transports water from the roots

____ The part of the tree that does photosynthesis to make food

____ What you are

- A. Bark
- B. Leaves
- C. Floam
- D. Heartwood, cambium, sapwood, phloem, bark
- E. Sapwood
- F. Cambium
- G. Phloem
- H. Bark, Phloem, Cambium, Sapwood, heartwood
- I. Bark, Sapwood, cambium, phloem, heartwood
- J. Xylem
- K. An Earth Steward!
- L. A tree