

Tree Physiology—What Makes a Tree a Tree

Every part of a tree is working to support the tree's growth. Each part has a specific role in this process. How well they all work together determines a tree's, and ultimately a forest's, success and survival.

The following resources are an introduction to Tree Physiology.

More information can be found at
ctenvirothon.org/study-guides/forestry/

Tree Anatomy

Each part of a tree has a specific function.

<https://www.arborday.org/trees/RingsTreeNatomy.cfm>

(NOTE: Sapwood is also called Xylem.)

"Tree Cookies" are fascinating to read. We can find out how old a tree is by counting rings, and what may have happened to the tree in its lifetime. Each ring also is associated with a specific layer of a tree, and as a tree grows, that layer can change, giving new purpose to the rings as they support the tree.

Detailed tree ring information can be found in the document:

Annual growth rings Tree knowledge _ Booklet _ Forest Academy - Domtar.pdf
(sent separately)

https://www.youtube.com/watch?v=IG44MW_iMml

www.youtube.com/watch?v=s_fS3JO5uqY

A valuable resource for scientific research

*Tree rings do more than tell the age of a tree, however. The science of **Dendrochronology** is teaching us about the earth's history, water, soil, and the changing climate.*

<https://www.thoughtco.com/dendrochronology-tree-rings-170704>

<https://www.youtube.com/watch?v=xmZO7aRgcW4>

<https://www.enn.com/articles/66144-using-tree-rings-researchers-measure-history-of-mercury-contamination-in-yukon>

<https://www.pbs.org/time-team/experience-archaeology/dendrochronology/>

<https://phys.org/news/2020-11-tree-clues-impacts-distant-supernovas.html>