What Is a Tree?

A tree is a woody plant that can grow to be 15 feet or higher and usually has a single stem and a crown (branched-out area) at the top.

Two Kinds of Trees

Minnesota trees can be divided into two main types: deciduous and coniferous.

Deciduous trees drop their leaves each autumn. Deciduous trees are sometimes called angiosperms, broadleaf trees, or hardwoods. Oaks, maples, and elms are deciduous trees.

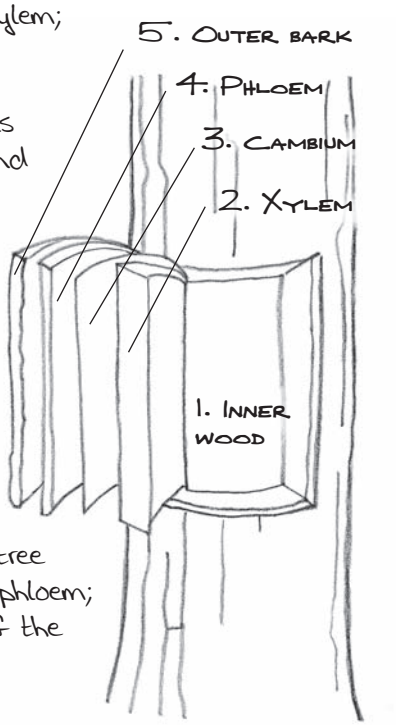
Coniferous trees are trees that produce seeds without fruits or nuts. Most coniferous trees bear seeds in cones, have needles instead of broad leaves, and keep their needles in winter. Coniferous trees are also called gymnosperms, evergreens, or softwoods. Spruces, firs, and pines are coniferous trees.

Reading the Rings

A tree's trunk is like a highway. It transports water and nutrients from the soil to the leaves. It transports food in the form of sugars from the leaves to the rest of the tree.

The trunk is made up of five layers:

1. Inner wood: dead xylem; stores food and supports the tree
2. Xylem: tubelike cells that move water and nutrients from roots to the rest of the tree
3. Cambium: layer that produces phloem and xylem
4. Phloem: tubelike cells that move sugar (called sap) from leaves to the rest of the tree
5. Outer bark: dead phloem; protects the rest of the tree.



During the growing season, the cells in the cambium divide to make new xylem and phloem. In spring they divide quickly and add a thick, light-colored layer. Later in the season growth slows, and the new layer is darker and thinner.

You can find a tree's age by counting the number of dark rings. You can also tell something about the growing conditions from a tree's rings. Thick rings mean good growth, while thin ones indicate tough times.