

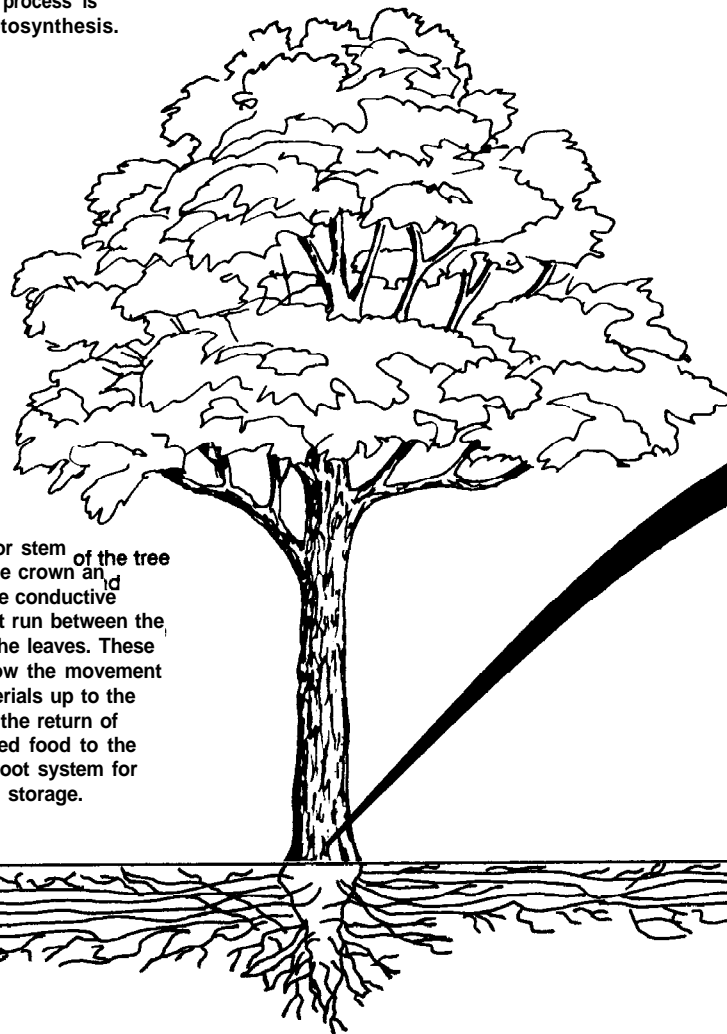
HOW A TREE WORKS

The crown consists of the leaves and branches. The leaves should be called the tree's "chemical laboratory." They contain chlorophyll, the substance that gives the green color to the leaves. In the presence of sunlight, the leaves use the water and minerals from the roots, and the carbon dioxide from the air, to produce sugar and oxygen.

The oxygen is released to the atmosphere and the sugar is stored in the stem and roots. This process is called photosynthesis.

OUTER BARK- protects tree from injuries

INNER BARK - (phloem) conductive vessels that carry food made in the leaves down to the branches, trunks and roots

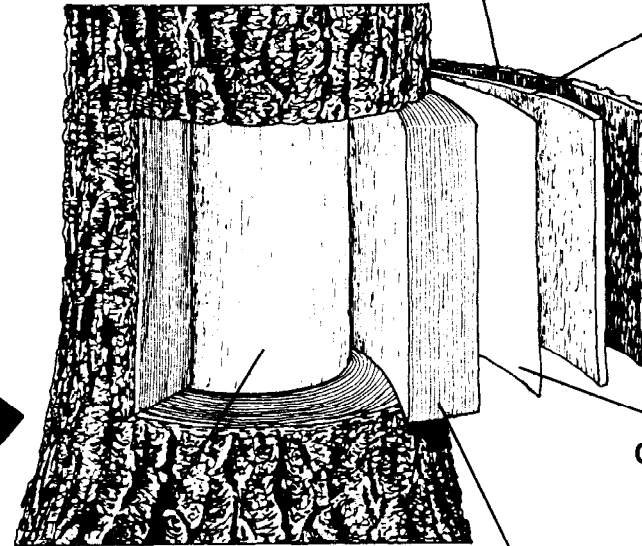


The trunk or stem of the tree supports the crown and contains the conductive vessels that run between the roots and the leaves. These vessels allow the movement of raw materials up to the leaves and the return of manufactured food to the wood and root system for growth and storage.

HEARTWOOD - (inactive) gives strength

SAPWOOD - (xylem) conductive vessels that carry water and minerals absorbed by the roots to leaves

CAMBIUM - (layer of cells where growth in diameter occurs) builds tissues -wood inside and bark outside



The root system is the most important part of a tree, yet is the most frequently ignored. A tree's root system usually extends horizontally beyond the branch tips.

The majority of the root system is located in the upper 12" to 18" of soil because of the high levels of oxygen which the roots require. Roots absorb minerals and water, store food, support and anchor the tree.



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