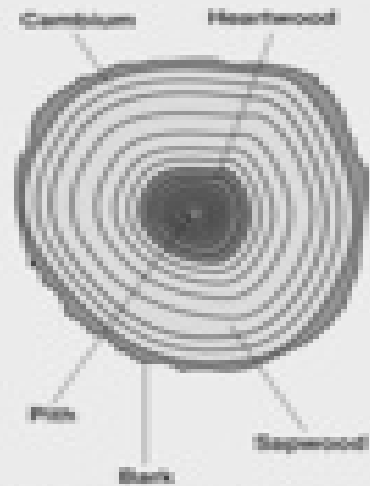


A Slice of Life □ Collecting and interpreting data

Counting a tree's growth rings can give a fairly accurate account of its age. The rings also reveal environmental conditions that affect a tree's growth, such as location, drought, flooding, temperature, surrounding foliage, pests, or disease. Fluctuations in these factors affect the width of each growth ring.

Growth occurs every year, in the cell-producing layer of the tree called the cambium. This is the area nearest the rough exterior, or bark. The next layer, the sapwood, is the transportation system of the tree. Water and nutrients flow to the outer branches, leaves, and roots of the tree. The darker heartwood is the next layered section that functions as the fortification of the tree. The pith is a spongy tissue at the center of these rings that functions mainly in storage.

Visit a local tree-trimming company to obtain several cross-sectional cuts of a tree trunk (enough for small groups of students to observe). As a class, carefully observe one of the cross sections, using it to identify and discuss the functions of each layer of a tree's trunk. Next, divide students into small groups. Give each group a cross section to examine, a ruler, and a copy of page 81. Instruct each group to use the cross section to complete the reproducible. Conclude by having a representative from each group present its data.



Pattern

Use with "Counting Achievements" on page 82 and "Treasures From Trees" on page 85.

