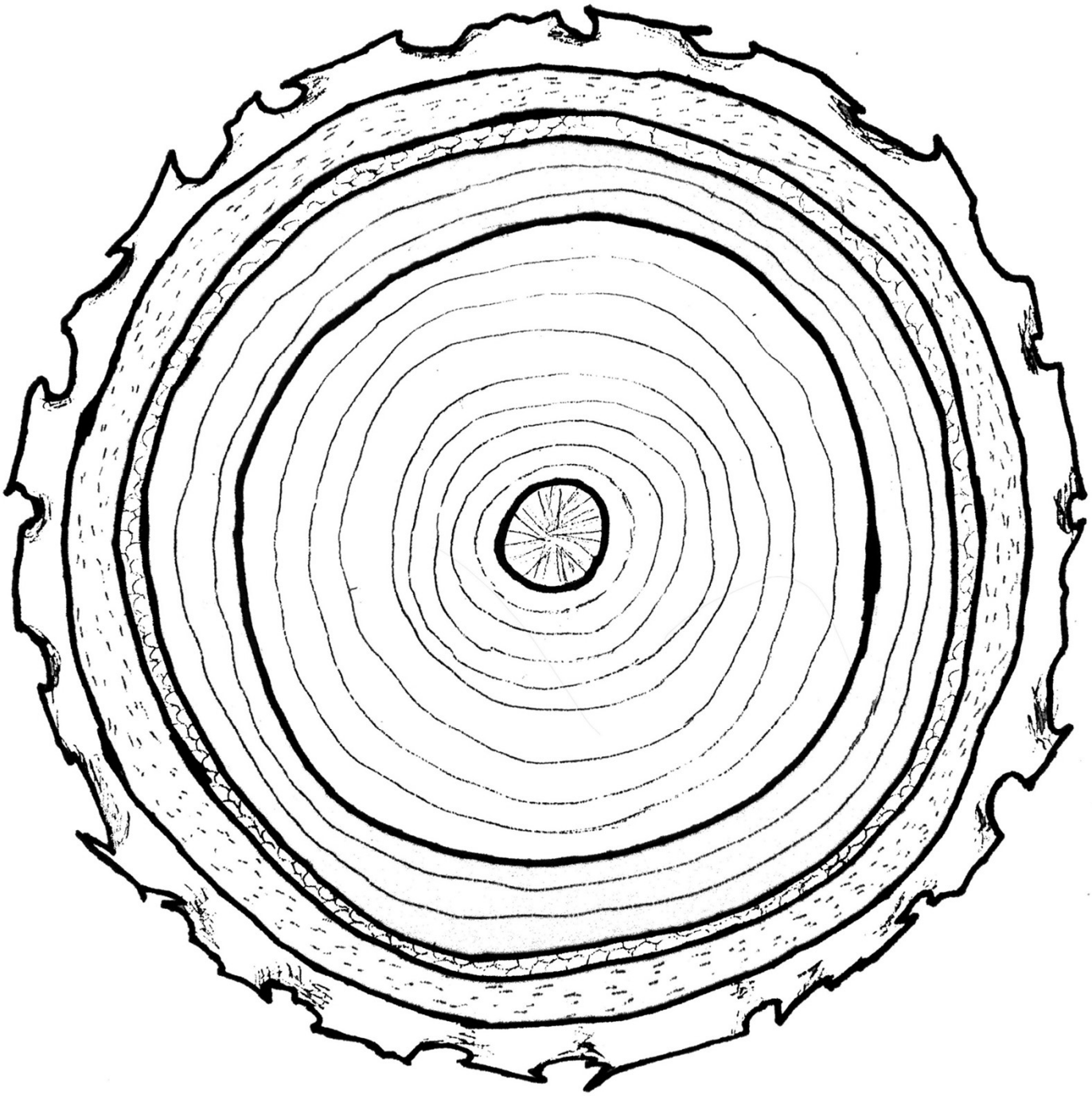
Tree Anatomy



Legend

☐ bark	☐ phloem	☐ cambium
☐ sapwood	☐ heartwood	☐ pith

Tree Anatomy

Color in your own tree anatomy diagram! For this activity, color in the parts of the tree trunk cross section – you can use color pencils, markers, watercolors, glitter glue, or any art supplies of your choice! Then color in the legend. You can also try to spot these parts on a stump or chopped log. The parts of a tree cross section are listed below from outermost to innermost:

1. **Bark** is the rough, protective outer coating. Bark helps protect the tree from insect and fungi invaders. Color the bark **brown**.
2. The **phloem** underlies the bark. The phloem's function is to transport sugars. Sugars form in the leaves during photosynthesis, and the phloem moves the sugars to other parts of the plant where they are needed for growth. Color the phloem **yellow**.
3. The **cambium** is a thin layer of dividing cells between the xylem and phloem. This is where secondary growth (trunk thickening) occurs. Color the cambium **green**.
4. The **sapwood** underlies the cambium. The sapwood is the living part of the **xylem**, which actively moves water upwards through the tree. Water is drawn up through the ground via the tree's roots. Water leaves the tree through tiny pores called stomata in the leaves, in a process called transpiration. Color the sapwood **orange**.
5. The **heartwood** is old, inactive xylem tissue which does not move water. Heartwood provides structural support. Both living and dead xylem parts (sapwood and heartwood) contain tree rings that formed each year as the tree grew inward from the cambium. Count the number of rings in the xylem to find the tree's age, then color the heartwood **red**.
6. The **pith** is at the very center of the tree trunk and plays a role in the movement of nutrients. In older trees the pith is often very tiny or diminished, relative to the size of the heartwood. Color the pith **purple**.