

TREE COOKIE TECHIE

Here is a list of the parts of a mature tree cross-section.

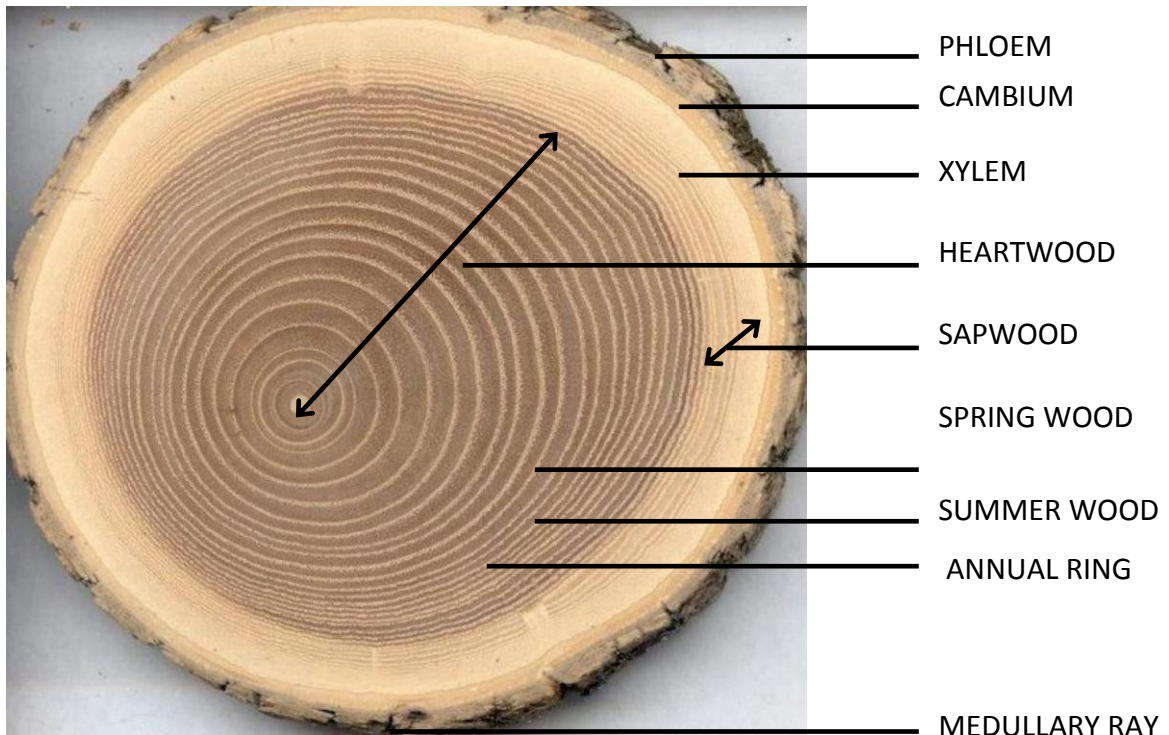
Print the labels in the proper spaces to the right of the diagram below.

1. **Xylem** – water conducting cells or WOOD i.e. taking water from roots to leaves
2. **Phloem** – food conducting cells or BARK i.e. taking food from leaves to roots
3. **Medullary ray** – cells conducting materials across the tree – the cracks in the wood
4. **Cambium** – single cell dividing layer which creates xylem and phloem
5. **Heartwood** – oldest wood in the middle of the tree which may be a darker colour
6. **Sapwood** – youngest wood from the bark towards the centre – often lighter colour
7. **Annual ring** – made of two rings for each year – spring and summer wood
8. **Spring wood** – thicker ring made of many thin-walled cells formed when there is lots of water available from melting snow or spring rain
9. **Summer wood** – usually a thinner ring made of fewer cells with thicker walls that are formed slowly when there is less water available.

Note: Wood grain- the appearance of any or all the above terms when a tree is cut for lumber to be used in buildings, furniture, toys etc.

CROSS-SECTION OF A MATURE TREE

LABELS



Optional Questions:

Why do rabbits like to eat bark?

Why do deer like to rub bark?

How deep should the spout to collect for maple sap be into the tree?

How many buckets of maple sap does it take to make one of maple syrup?

What is the name of the instrument used to remove a core from the tree so that you can count the annual rings?