

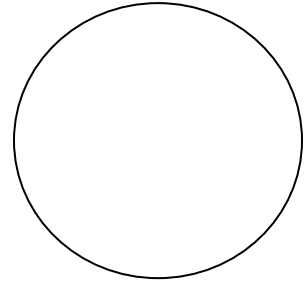
Plant Physiology Lab

Lilium Floral Bud

Focus using the low power objective and sketch.

Is this a monocot or dicot?

Besides getting your answer by reading the slide label, how did you know how to classify this by examining the bud under the microscope?



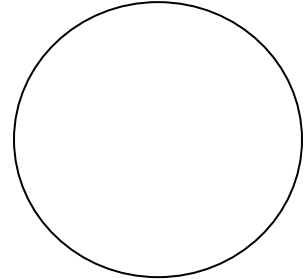
Ranunculus Root

Focus using the medium power objective and sketch.

Label the epidermis, cortex, endodermis, phloem and xylem (stele).

Is this an example of a monocot or dicot root?

How do you know?

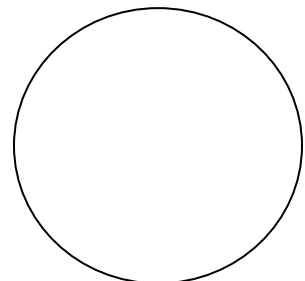
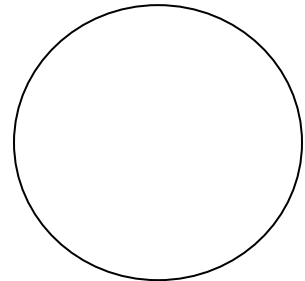


Stem Monocot and Dicot

Using the low power objective, sketch both specimens found on the slide. For each sketch, label xylem, phloem, pith, epidermis, cortex.

Identify which sketch represents the monocot.

Identify which sketch represents the dicot.



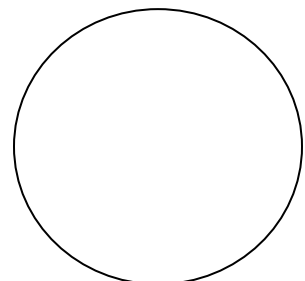
Tilia Stem Second Year

Using the low power objective, sketch the stem. Label the vascular cambium, primary and secondary xylem, primary and secondary phloem, cork cambium, and bark.

Explain why a tree would die if stripped of its bark?

Is this secondary or primary growth?

What is the difference?

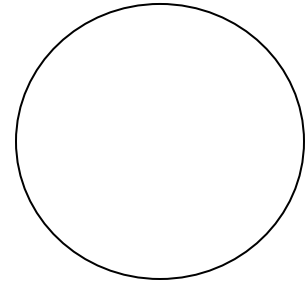


Epidermis of Dicot Leaf

Focus using the medium power objective and sketch. Label the overall epidermis and the guard cells that make-up stomata.

What type of tissue is this?

How do the stomata open and close?



Maple Leaf

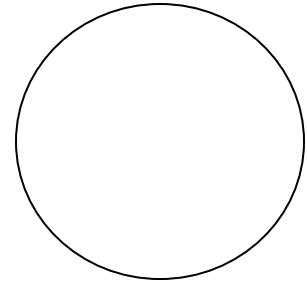
Focus on the blade of the leaf (not in the main center vein) using high power objective and sketch. Label the cuticle, epidermis, spongy mesophyll and palisade mesophyll, and guard cells.

Which of the following parts are made up of parenchyma cells? Why?

Which of the following structures are made up of protoderm?

How can you tell by looking at the slide that this is a typical dicot leaf?

(hint... think of the venation)



Corn Leaf

Focus on the leaf using high power objective and sketch. Label the upper and lower epidermis and label at least 3 places you see the vascular bundle.

How would you know that this is a monocot leaf (without reading the label on the slide?)

