

Structure and Function in Living Systems

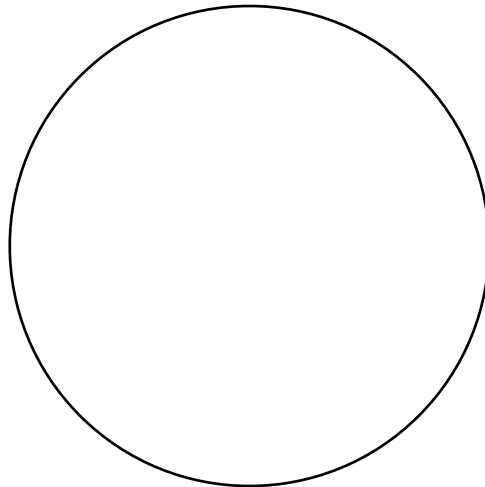
Name: _____

Leaf Cells

Period: _____

Use the slide strip #102 and a plastic microscope for this. Use colored pencils to make a drawing in the circle of what you see. Then, answer the questions using what you observed and information from the paragraph below.

Circle #5 shows different kinds of cells in a leaf. The leaf has been cut in half, and you are looking at the end of the cut. Next, the cells were stained with a chemical to make the different types of cells easier for you to see. When you draw, do NOT draw the letters and lines you see on the photo!



1. The cells on the top and bottom of the leaf make up the cuticle. What is the job of the cuticle? [p.360] _____

2. What is the name of the hole in the leaf, indicated by the S? [p.378] _____

3. What is the function of the hole in the leaf? [p.378] _____

4. What is the name of the special cells around this opening? [p.378] _____

5. What is the function of these special cells? [p.378] _____

6. The V is near cells working together to do a specific job for the plant. What are cells working together called? [p.131] _____

7. The V indicates a vein in the leaf. Water flows through this to different parts of the plant. What kind of vascular tissue is made by the cells in a vein? [p.374] _____

8. Photosynthesis in a leaf happens in a layer of cells underneath the cuticle. You should be able to see dark green dots near the outer edges of the cells in this layer. These tiny green organelles perform photosynthesis. What is the name of these organelles? [p.378] _____

9. Do all of these cells ... have the same size? _____ ... have the same shape? _____
... do the same job? _____

10. Write the terms **cuticle** and **vein** outside of the circle, and draw a line from the term to part of your drawing so it touches that part in the drawing.