Name \_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_ Period\_\_\_\_\_

**Lab Leaf Structure**

Purpose: Draw and contrast the structures (cells) on upper epidermis and lower epidermis of a leaf.

Procedure:

a.) Obtain a fresh leaf and prepare upper and lower epidermis slides. Teacher will show you how to prepare them. You can use clear nail polish to make an impression as well.

b.) View slides under the microscope at high power.

c.) Draw and label cell wall, guard cell, and stomata when present.

Hypothesis: In which epidermis do you expect to see stomata? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Upper Lower**

**Magnification: \_\_\_\_\_\_\_ X Magnification: \_\_\_\_\_\_X**

Questions:

1. What might be the advantage of a flat, thin leaf to the photosynthetic capacity of the plant?
2. What are the functions of
3. Stomata:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Guard cell:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Cell wall:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Infer: Why do you think you don’t find any stomata’s in the upper epidemics?