

Name \_\_\_\_\_

Sect \_\_\_\_\_

**MICROSCOPE and CELL STRUCTURE LABS**  
**Questionnaire**

1. Draw an example of your onion skin slide and label: cell wall, cytoplasm, and nucleus. (2 pts.)  
Power of magnification \_\_\_\_\_

2. Draw what you saw in your cheek cell preparation slide and label: cytoplasm, nucleus, plasma membrane and mitochondria. (2 pts.)  
Power of magnification \_\_\_\_\_

3. Draw a typical plant cell, such as you show in your Hydrilla slide, and label: cell wall, cytoplasm, nucleus, chloroplasts, and central vacuole. (2 pts.)  
Power of magnification \_\_\_\_\_

4. Fill in the following table calculating total magnification of your compound microscope. (2 pts.)

Ocular	Objective	Objective Magnification	Total Magnification
10x	scan	_____ x	_____ x
10x	low power	_____ x	_____ x
10x	high power	_____ x	_____ x
10x	oil immersion	_____ x	_____ x

5. In what way(s) can you adjust the amount of light passing through a specimen on your microscope? (1 pt.)

6. Fill in the following table. [U= usually or always, N= never, S= sometimes] (3 pts.)

Structure or characteristic	Plant cell	Animal cell	Bacterial cell
Photosynthetic			
Plasma membrane			
Nucleus present			
Cell wall present			
Chloroplasts present			

7. Methylene blue: (1 pt.)

- \_\_\_\_\_ a. is used to kill cells that are moving too quickly to observe.
- \_\_\_\_\_ b. render cells non-toxic.
- \_\_\_\_\_ c. is a portion of the electromagnetic spectrum used by green plant cells.
- \_\_\_\_\_ d. is a biological stain used to increase contrast of cellular constituents.
- \_\_\_\_\_ e. all of the above are true.

8. The cell organelles most closely associated with cellular secretion are the: (1 pt.)

- \_\_\_\_\_ a. microfilaments
- \_\_\_\_\_ b. Golgi bodies
- \_\_\_\_\_ c. ribosomes
- \_\_\_\_\_ d. mitochondria
- \_\_\_\_\_ e. vacuoles

9. Cells without nuclear membranes or membrane bound organelles are \_\_\_\_\_ cells. (1 pt.)