**Microscope Lab #2 PREPARing A WET MOUNT, comparing PLANT CELL vs Animal cell**

**Part A: wet mount, SCIENTIFIC DRAWING**

**Materials:** Microscope, glass slide, coverslip, onion, forceps, dropper, iodine, paper towel

**Procedure:**

1. Prepare a WET MOUNT of a small piece of onion by peeling a very thin layer of onion skin off the inside of your onion
2. Place the onion layer on a slide, then add a drop of water and a drop of iodine. *Careful: Iodine will stain your clothes*.
3. Carefully place a cover slip over top of the sample at a 45-degree angle to reduce the amount of bubbles.
4. Touch the edge of a paper towel to the edge of the cover slip to absorb any liquid that is outside of coverslip.
5. Find and focus on a single layer of onion cells on low power. Then increase to higher power.
6. **Make a Proper Scientific Drawing** of a few onion cells (5-10 together) under High Power.
7. **Label cell wall and nucleus**

Specimen: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Total Magnification: \_\_\_\_\_\_\_\_\_\_\_\_\_

1. *Extending*: Remembering the diameter of the Field of View from the last lab, estimate the length of one onion cell.

Length of one onion cell: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_mm

**PART B: OBSERVING PREPARED SLIDE OF ANIMAL CELL**

1. Obtain a prepared slide of a blood smear or muscle tissue. View under high magnification. Note the difference in the size and shape of a blood cell as compared to the onion cell.
2. Draw a few cells under highest power:

Specimen: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Extending: Estimate the size of a blood cell: \_\_\_\_\_\_\_\_\_\_\_\_ mm.

**Questions:**

1. When preparing a wet mount, how do you **prevent bubbles** under the coverslip?
2. What **types** of specimens would require wet mount?
3. What is the **purpose of the coverslip** in a wet mount?
4. Compare plant and animal cells in terms of **size** that you saw under the microscope (hint: how much space does your specimen fill when viewed at the same magnification)
5. Compare plant (onion) and animal cell (paramecium or blood cell) in terms of **shape** that you saw under the microscope.
6. Name an organelle that you would expect to find a plant cell which makes the cell green but that would not be found in an animal cell.
7. Name the *process* that occurs in this organelle.
8. Write the WORD equation for this process.