

Lab Title:...*We Are Not Plants*..... Lab #:...13.....

Lab Partners:.....

Your Lab Score will be based on the following:

**Neatness:** All labs must be **well-written and done in pencil** unless directed otherwise. There are to be no cross-outs or misspelled words. Questions should be answered in complete sentences.

**Accuracy:** Certain **questions will be checked** for accuracy.

**Completeness:** All questions are to be answered completely. There are to be **NO BLANKS** or incomplete sections.

**Lab Class Procedure:** You are to **follow directions** and use lab equipment properly, work for the entire period, and follow proper clean-up procedures

**Rubric:**

Lab Score Category	Points Earned										
Neatness	0	1									
Accuracy	0	1	2	3	4						
Completeness	0	1	2	3							
Lab Class Procedure	0	1	2								
<u>Total Lab Score</u>	0	1	2	3	4	5	6	7	8	9	10

You are to submit all lab material with this lab report:

Comments:

# We Are Not Plants

**Purpose:** To observe and identify the parts of the typical plant cell and compare them to a typical animal cell.  
To come to know how to prepare a wet-mount.

**Background:**

What is an organelle?

What is the green pigment in the chloroplast?

What purpose does that pigment have?

What other types of organisms contain chlorophyll (organisms other than plants that can go through photosynthesis)?

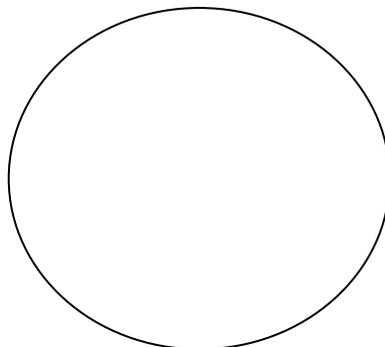
How do you find total magnification?

What focus can you use at high power? Why?

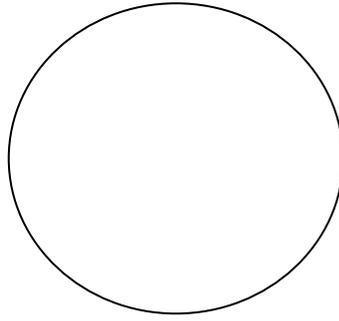
**Procedures:**

## **PLANT CELLS**

1. Set up a microscope as directed by Mr. Ulrich.
2. Get a pre-prepared slide of *Elodea*
3. Observe your slide **under low power**. Sketch what you see in the space below.
4. Label the visible parts in your drawing. (Cell wall, cytoplasm, chloroplast)



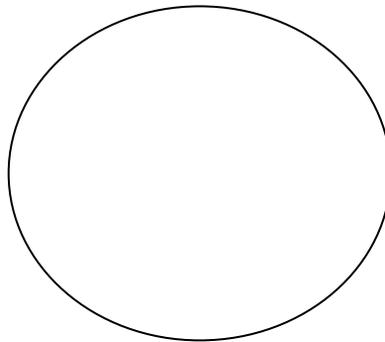
5. Switch to high power. Draw **one cell** and label the parts you can see. (Cell wall, cytoplasm, chloroplast)



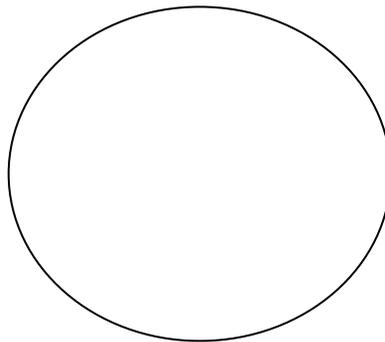
6. Return the slide to the box on Mr. Ulrich's desk.

## **ANIMAL CELLS**

7. Make a wet mount of your own cheek cells by following these steps.
- Get a clean slide and a toothpick.
  - Put one drop of iodine solution on the slide.
  - Using the flat side of the toothpick **gently** rub the inside of your cheek.
  - Dab the "cheeky" end of your toothpick in the drop of water on the slide. **NOW THROW THAT NASTY TOOTHPICK AWAY!!**
  - Line up the coverslip at a 45-degree angle and drop it on top of the sample on the slide.
8. Observe your slide under low power. Draw and label what you see in the space below. (Cell membrane, cytoplasm, nucleus, and maybe the nucleolus)



9. Focus on **one good cell** using high power and draw it in the space below. Label All of the parts you can. (Cell membrane, cytoplasm, nucleus, and maybe the nucleolus)



When you are done with your cheek slide, **THROW IT AWAY!**

Yes, there are conclusion questions.

Conclusions: Answer the following question **in complete sentences** in the space provided. **DO NOT PLAGIARIZE!** Make sure your answers are not exactly the same as your partner's (or anyone else's) answers. You can certainly discuss the answers but put them in **YOUR OWN WORDS**.

1. What structures did you see in both types of cells?
2. What structures did you only see in the plants?
3. What are some differences other than cell parts that are different between these two slides?
4. What are *epithelial cells* and how are they related to this lab?
5. What are the limitations of the compound light microscope? What other microscope would you use on this lab (if available)? Why would you choose that 'scope?
6. What have you learned about cells from this lab that you didn't know prior to the lab?