Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Cell Observation Laboratory #1**

1. **Pre- Laboratory Questions**
   1. What type of organism is an onion?
   2. What type of an organism is a human?
   3. What differences might you expect to see in a plant cell versus an animal cell?
2. **Procedure**
   1. Obtain two specimens from your teacher.
   2. Examine these cells under low, medium and high power.
   3. If you were given a bottle of iodine, lift up the cover slip on your wet mount specimen and add 1-2 drops of iodine stain. Observe again under medium and high power.
   4. Draw both types of cells below under the power of your choice (wherever you can see them best).
   5. **LABEL** any structures you can observe (ex: cell wall, cell membrane, cytoplasm, nucleus, etc…)

**Objective Used: Objective Used:**

**\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_**

|  |  |
| --- | --- |
| **Describe specimen 1:**  **Can you identify what type of cell this is? Support your answer.** | **Describe specimen 2:**  **Can you identify what type of cell this is? Support your answer.** |

1. **Post-Lab**
   1. After you’ve recorded your observations, share out two of them on the padlet so your classmates can see them! Just follow the link on the board.

**Cell Observation Laboratory #2**

1. **Pre-Laboratory Questions**
   1. What is the difference between a prokaryote and a eukaryote?
   2. Give an example of a prokaryotic cell.
   3. What color does iodine turn in the presence of starch?
2. **Procedure**
   1. In the last lab you looked at two different cells. In this lab your job is to look at each of the other 6 cells that your classmates observed. As you rotate through the cells, draw a picture in the space below and record both the power you used and your observations.

|  |  |  |  |
| --- | --- | --- | --- |
| **Power?** | **Drawing** | **Observations** | **Identify cell type?** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

1. **Conclusions**
   1. Consider the human cheek cells. A) Are these prokaryotic or eukaryotic cells, and B) how can you tell?
   2. What is the purpose of staining cells?
   3. Why did the potato cells turn a dark purple-black color when stained with iodine?
   4. The Anacharis cells contained chloroplasts. What is the function of those cells?
   5. The potato and the onion are both eukaryotic plant cells. However, they do not contain chloroplasts. Why do you think this is so?