|  |  |
| --- | --- |
| **Science 8**  **Onion Cell Lab** | **Name: Date: Block:** |

**Objective:**

**Materials:**

|  |  |  |
| --- | --- | --- |
| **-**  **-**  **-** | **-**  **-**  **-** | **-**  **-**  **-** |

**Procedure:**

1. Check your lab station to ensure that you have all the needed materials.

1. Begin to prepare a wet mount by placing a drop of water in the middle of your slide.
2. Take a piece of onion from the inner layer and carefully break it in half. Pull the top layer of the onion – this is called a **thin section.**
3. Use tweezers to place the thin section in the drop of water on the slide. Finish making your wet mount slide by placing the cover slip on top. Wipe off any excess water with paper towel.
4. Place your slide on the stage of the microscope and focus at **low power.**
5. Take your slide off the stage and bring your slide to your teacher and get her to place a drop of iodine solution on one side of your slide.
6. Go back to your table and place a small piece of paper towel on the other side of the cover slip to soak up the solution. *The paper towel will soak up the water under the cover slip and draw the iodine solution under the slide and into the cells. This process is called* ***staining the cells.***
7. Observe the onion cell under **medium power**. Draw what you see at medium power. Make sure to include a title and total magnification.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

1. Clean up and put away the equipment you have used.

**Analysis:**

1. When using the low power objective lens, what focus knob should you use?
2. How did the iodine solution change the onion cells you were observing under the microscope?
3. You should have observed **multiple** onion cells. Estimate how many cells were in your field of view at medium power.
4. Surrounding each cell is the cell wall. Label the cell wall of *one cell* directly on your biological diagram.
5. The nucleus of the cell should appear as a dark circle somewhere within the cell. Label the nucleus of *one cell* directly on your biological diagram.