**Cheek and Onion Cells Lab Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**INSTRUCTIONS: Obtain a microscope from the rolling cabinet, and carefully return it to your work area. Plug it in and make sure it works.**

**Part A: Cheek Cells**

1. **Obtain a toothpick, a slide, and a coverslip from the demonstration table.**
2. **Carefully put 1 drop of methylene blue on a clean slide. (Caution: Methylene blue will stain clothes and skin.)**
3. **Gently scrape the inside of your cheek with the flat side of a toothpick. Scrape lightly.**
4. **Stir the end of the toothpick into the stain and throw the toothpick away.**
5. **Place the coverslip at a 45-degree angle on the edge of the water/saliva mix. Allow the liquid to spread down the edge of the coverslip. Once it has spread, carefully lower the coverslip over the liquid.**
* **If you have a lot of air bubbles regardless of size, rinse of your slide and start over. It’s important that you make a good slide.**
1. **Always begin with the low power objective lens (the short one) to find your cells, then you may switch to the medium power and refocus.**
2. **Draw what you see in the box below. (Fill the whole box) Label the cell membrane, nucleus, and cytoplasm.**
3. **What is the magnification of your cheek cells? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Clean off the slide and cover slip with water and dry them with a paper towel.**

**Part B: Onion Cells**

1. **Using the glass droppers, place a drop of water in the middle of a clean slide.**
2. **Using the forceps, gently remove a section of the skin from the inside layer of the onion and place it on the slide in the drop of water.**
3. **Gently lower the cover slip down on the drop of water.**
4. **Always begin with the low power objective lens (the short one) to find your cells, then you may switch to the medium power and refocus.**
5. **Describe what you see. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

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1. **Adjust the light amount by rotating the diaphragm. Does this help? \_\_\_\_\_\_\_\_\_\_\_\_**
2. **Back at the demonstration table, use a drop of stain and place it at the edge of your cover slip with the onion section. Let the stain soak into the onion sample (this may take a couple minutes)**
3. **Place the slide back under the microscope and observe again. Draw what you see in the box below. (Fill the whole box) Label cell wall, cell membrane, cytoplasm, and nucleus.**

1. **How were your cheek cells similar to onion cells? How were they different?**

**Similar –**

**Different –**

**CLEAN UP YOUR AREA – Put the cover on the microscope and return it to the rolling cabinet. Make sure slides are cleaned off with water and dried with a paper towel. Return them to the demonstration table at the back of the room. Wipe off the table and push in chairs.**