**Plant and Animal Cells Microscope Lab**

**Objectives:**

Students will discover that plants are made up of cells.

Students will observe plant cells under a microscope.

Students will discover that their skin is made up of cells.

Students will observe cheek cells under a microscope.

**Materials:**

* Microscope cover slips

a toothpick a plant slide

* glass slides iodine stain

**Procedures:**

**Plant cells**

1. Peel a translucent piece of tissue from the onion. (The smaller the piece the better.) Translucent means that you can see light through the specimen, but it is not transparent.
2. Place the piece of onion on a glass slide
3. Add a drop of the iodine solution. Cover the slide with a cover slip using your best wet-mount making techniques.
4. Observe the onion cell under both low and high power. Make a drawing of one onion cell, labeling all of its parts as you observe them. (At minimum you should observe the nucleus, cell wall, and cytoplasm.)

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**Cheek cells**

1. To view cheek cells, gently scrape the inside lining of your cheek with a toothpick. *DO NOT GOUGE THE INSIDE OF YOUR CHEEK!*

2. Gently roll and rub the toothpick onto the top of a glass slide in an area that will be visible through the microscope.

3. Add a drop of iodine stain and cover with a cover slip.

4. Observe the cheek cells under both low and high power of your microscope. Draw a diagram of one cheek cell and label the parts.

(You should observe the cell membrane, nucleus, and cytoplasm.)

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**Complete the following chart: The Cell organelle found in plant, animal, or both. (Place an x in the appropriate box)**

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| --- | --- | --- | --- |
| **Organelle** | **Plant** | **Animal** | **Function** |
| **Nucleus** |  |  |  |
| **Cell Wall** |  |  |  |
| **Chloroplast** |  |  |  |
| **Cytoplasm** |  |  |  |
| **Cell Membrane** |  |  |  |