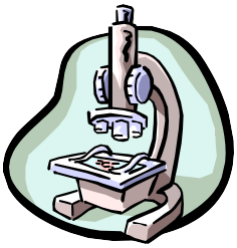
Name_____ Date___Period _____



Microscope Stations

Objectives:
To learn the parts of the microscope.
To find specimens using low and high power. To make a wet mount.
To view your own human cheek cells under the microscope. To compare plant, animal and bacteria cells.

Be sure to answer all questions in complete sentences.

Procedure: **Letter "e"**

1. Cut out the letter "e" and place it on the slide face up.
2. Add a drop of water to the slide.
3. Place the cover slip on top of the "e" and drop of water at a 45-degree angle and lower. Draw what is on the slide in **Figure 1**.

Figure 1 **Figure 2**

4. Place the slide on the stage and view in low power (4x). Center the "e" in your field of view. Draw what you see in **Figure 2**.
5. Move the slide to the left, what happens? _____

- Move the slide to the right, what happens? _____
- Move the slide up, what happens? _____
- Move the slide down? _____

6. View the specimen in high power (10x). Use the fine adjustment **only** to focus. Draw what you see in **Figure 3**.

Name_____ Date___Period _____

7. View the specimen in high power (40x). Use the fine adjustment only to focus. Draw what you see in **Figure 4.**

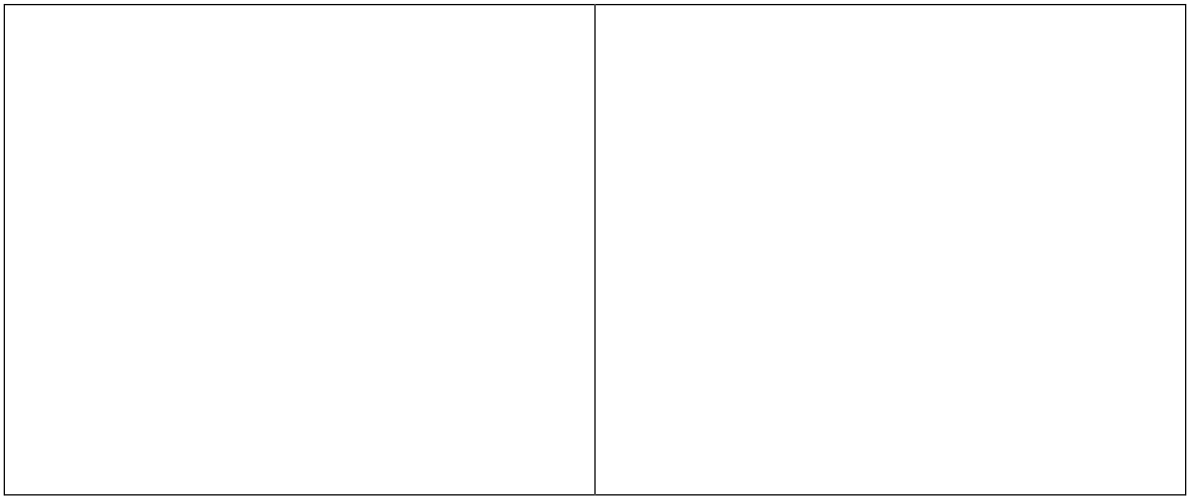


Figure 3 **Figure 4**

Analysis:

1. How does the letter "e" as seen through the microscope differ from the way an "e" normally appears?

2. How does the ink appear under the microscope compared to normal view?

3. Why does a specimen placed under the microscope have to be thin?

Procedure: **Part 2 - Cheek Cell**

1. Place a small drop of food coloring onto a clean slide.
2. Using a toothpick, gently scrape the inside of you cheek.
3. Place the toothpick tip into the iodine and mix. The food coloring stains the cells so you can see them.
4. Place the slide under low power (4x). Draw what you see in **Figure 5**.
5. Switch to high power (10x). Draw 2 or 3 cells in **Figure 6**. Label the nucleus, cell membrane, and cytoplasm.

Name_____ Date___Period _____

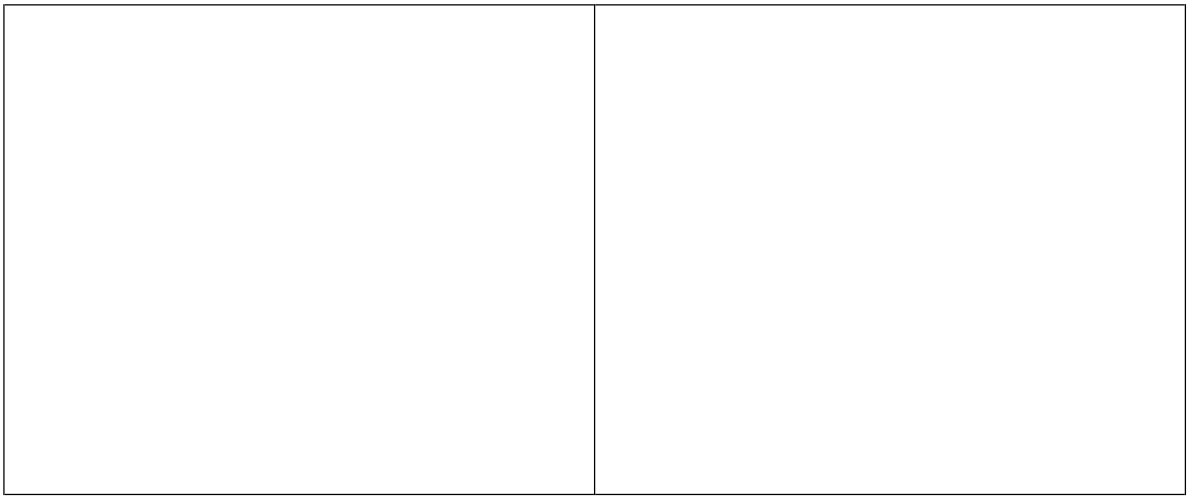


Figure 5 **Figure 6**

Analysis:

1. Why did we add food coloring to our cheek cells?

2. What structure in the cheek cell was stained the darkest? _____

3. Is your cheek cell an animal cell? _____

Procedure: Part 3 – Onion Cell

1. Place a drop of food coloring on a clean slide.
2. Place a small piece of onion membrane into the food coloring; place a cover slip on top.
3. Observe under low power. Draw what you see in **Figure 7**.
4. Now switch to high power, remember to focus on 10x before moving on to high power! Draw what you see in **Figure 8**. Label the following organelles: cell wall, nucleus, and cytoplasm.

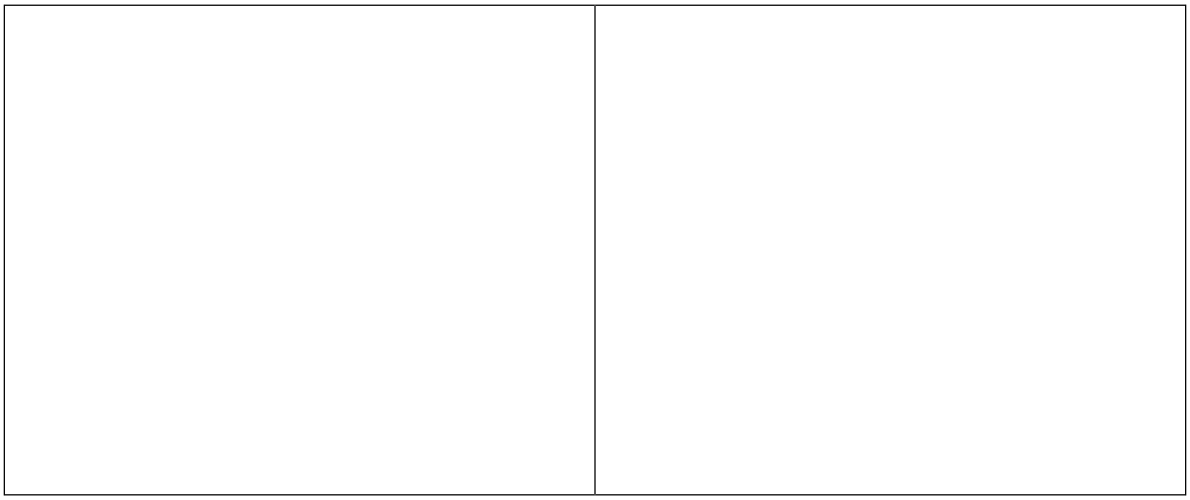


Figure 7 **Figure 8**

Name_____ Date___Period _____

Analysis:

1. How was the onion cell different from the cheek cell?

2. Is an onion cell a plant or animal cell?

Procedure: Part 4 Examining bacteria in yogurt (DO NOT EAT)

1. Using a toothpick, place a dab of yogurt on a microscope slide.
2. Mix the yogurt in a drop of water with food coloring and carefully add a coverslip.
3. Observe the bacteria on the low power first (4x). Now switch to high power (10x), Remember to focus on 10x before moving on to high power! Draw what you see in **Figure 10.**

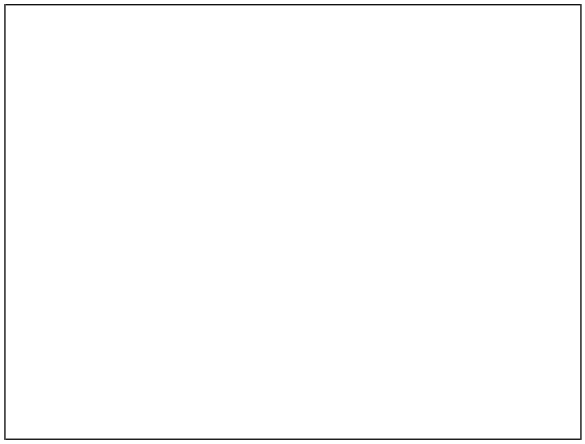


Figure 10

1. How was the bacteria different from the cheek and plant cells?

2. Which structures were not found in the bacteria cells?

3. Was anything moving in the slide? Explain.

Conclusion: Write 2-3 sentences on what you learned from this lab activity. Based on all the microscope stations.

YOU MUST CLEAN UP!
ALL SLIDES ARE TO BE CLEANED AND PUT AWAY.