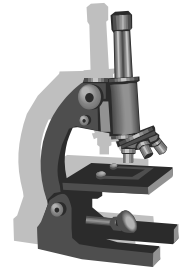


Microscope Lab



NAME _____ DATE _____

PURPOSE:

To learn the parts of the microscope and how to prepare slide mounts

METHOD:

Materials

- Microscope
- Letter "e"
- Distilled water
- Eye dropper
- Microscope slides and cover slips
- Iodine
- Toothpick
- Cheek cells
- Onion
- Elodia

Procedures

Part One - 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" at a 45-degree angle and lower.
Draw what is on the slide in Figure 1
4. Place the slide on the stage and view in low power. Centre the "e" in your field of view. Draw what you see in Figure 2

How does the letter "e" different through the microscope and the way you normally see it?

5. Move the slide to the left, what happens? Repeat this process to the right, up and down

When you move the slide to the left, in what direction does the letter appear to move?

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

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

Part Two - Cheek

1. Place a small drop of Iodine onto a clean slide
2. Using a toothpick, gently scrape the inside of your cheek
3. Place the toothpick tip into the iodine and mix. The iodine stains the cells so you can see them. Place a cover slip on top
4. Place the slide under low power. Switch to high power. From each magnification, draw what you see in Figure 4
5. Label the nucleus, cell membrane, and cytoplasm
6. Put the slide and coverslip into disinfect solution

Why did we add iodine to our cheek cell?

Part Three - Onion

1. Get a clean slide and cover slip.
2. Place a drop of iodine on a clean slide
3. Place an onion in the drop of iodine, place a cover slip on top
4. Place the slide under low power. Switch to high power. From each magnification, draw what you see in Figure 5
5. Label the following nucleus, cytoplasm, cell wall

Part Four - Elodea

1. Place a drop of water on a clean slide
2. Place an elodea leaf in the drop of water, place a cover slip on top
3. Place the slide under low power. Switch to high power. From each magnification, draw what you see in Figure 6
4. Label the following; nucleus, cytoplasm, cell wall, chloroplasts

Drawings

Figure 1

Figure 2

Figure 3

Figure 4

Figure 5

Figure 6

ANSWER THE FOLLOWING QUESTIONS ABOUT YOUR OBSERVATIONS

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

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

3. Is your cheek cell an animal cell? From your observations explain your answer?

4. What structures were in the plant and animal cell?

5. What structures were only in the plant cell? How could you tell plant leaf cells from plant root cells?

YOU MUST CLEAN UP ALL SLIDES ARE CLEANED AND PUT AWAY