Introduction to the Microscope Lab Activity

Introduction

"Micro" refers to tiny, "scope" refers to view or look at. Microscopes are tools used to enlarge images of small objects so as they can be studied. The compound light microscope is an instrument containing two lenses, which magnifies, and a variety of knobs to resolve (focus) the picture. Because it uses more than one lens, it is sometimes called the compound microscope in addition to being referred to as being a light microscope. In this lab, we will learn about the proper use and handling of the microscope.

Instructional Objectives

- Demonstrate the proper procedures used in correctly using the compound light microscope.
- Prepare and use a wet mount.
- Determine the total magnification of the microscope.
- Explain how to properly handle the microscope.
- Describe changes in the field of view and available light when going from low to high power using the compound light microscope
- Explain why objects must be centered in the field of view before going from low to high power using the compound light microscope.
- Explain how to increase the amount of light when going from low to high power using the compound light microscope.
- Explain the proper procedure for focusing under low and high power using the compound light microscope.

Materials

- Compound microscope
- Glass slides
- Cover slips
- Eye dropper
- Beaker of water
- The letter "e"
- Scissors

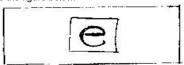
Procedures

I. Microscope Handling

- Carry the microscope with both hands --- one on the arm and the other under the base of the microscope.
- 2. One person from each group will now go over to the microscope storage area and properly transport one microscope to
- your working area.
 The other person in the group will pick up a pair of scissors, newsprint, a slide, and a cover slip.
- Remove the dust cover and store it properly. Plug in the scope. Do not turn it on until told to do so.
- Examine the microscope and give the function of each of the parts listed on the right side of the diagram.

- Part II. Preparing a wet mount of the letter "e".

 1. With your scissors cut out the letter "e" from the newspaper.
 - Place it on the **glass slide** so as to look like (e).
 - Cover it with a clean cover slip. See the figure below.



4. Using your eyedropper, place a drop of water on the edge of the cover slip where it touches the glass slide. The water should be sucked under the slide if done properly.