# Activity #11B

## Introduction to Microscope



# Parts of a Microscope Notes

**Eyepiece or Ocular:** Where you look into the Where you <u>microscope</u> to see the image. Magnifies image 10x.

Body Tube:

Long, skinny tube that holds the eyepiece up above the microscope. It allows the light to travel through the microscope.

### Nosepiece:

The nosepiece holds the <u>two or three</u> objective lenses. It <u>rotates</u>.

**Objective Lenses (High, Medium, & Low):** Lenses that magnify the image. The **\_shortest lens\_** (4x) is the least powerful and **\_longest lens\_** is the most powerful.

#### Arm:

The arm <u>holds the upper portion</u> of the microscope above the stage. One hand should be here when moving microscope

### Course Adjustment Knob:

Located on the arm. Allows you to move the upper portion of the microscope up and down.

#### Fine Adjustment Knob:

Located on the arm. <u>Small knob</u> that allows you to fine tune the image.

### Slide & Coverslip:

\_Thin piece of glass\_ that you place directly over the opening in the stage. Place the material that you want to view on the slide, place a drop of water onto the material & put the coverslip over it.

Figure 2: Placing the Coverslip

#### Stage:

Place the <u>stuff</u> that you want to look at here. It has a hole in the middle to let the light through.

### Diaphragm (die-a-fram):

Round disk under the stage that has several <u>different size holes in it</u>. It allows you to change the amount of light that comes up through the aperture.

#### Aperture (app-ur-chure):

The hole in the middle of the stage. Allows light to <u>come up from the lamp</u>.

#### Lamp:

This is located on the base, in the middle. <u>**Reflects light**</u> onto the slide so you can see the image.

#### Base:

This holds the whole microscope up. One hand <u>goes underneath here</u> when holding and moving the microscope.

#### Legs:

Part of the base. <u>Sometimes split</u> into two portions\_.



# Magnification

<u>Ocular</u> or eyepiece is 10x (makes things 10 times bigger).

**Objective Lenses include:** 

- Low 4x (makes things 4 times bigger)
- Medium\_ 10x (makes things 10 times bigger)
- High 40x (makes things 40 times bigger)

The <u>total magnification</u> is found by multiplying the eyepiece and the objective lens power.

When focusing a microscope, always go from \_Low\_ to \_Medium\_ to \_High\_ magnification.

# Parts of a Microscope Notes

