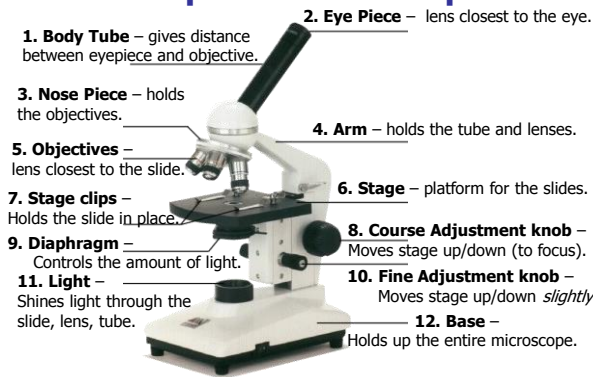


## Compound Microscope



## Using a Compound Microscope

- 1) Always carry the microscope by the base and the arm.
- 2) Keep the microscope in the center of the desk. (Stay away from the edge!)
- 3) Always start with the **LOWEST** power objective (the shortest one).
- 4) Place your slide on the stage. Try to center your specimen with the lens.
- 5) Start with the stage all the way up (so the objective and stage are closest together).
- 6) Turn on the light.

## Using a Compound Microscope

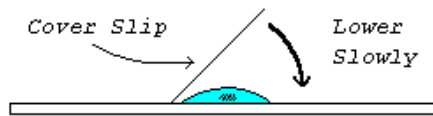
- 7) Focus using the coarse adjustment knob first. Move the stage away from the objective until the image is in focus.
- 8) Once the slide is centered & in focus, then use the fine adjustment knob to *sharpen* the image.
- 9) Only, then may you switch to higher power objectives.
- 10) To calculate power of magnification:  
 Total magnification = Eyepiece x Objective  
 Total magnification = 10 x 4 = 40

## Microscope Hints

- 1) Use the diaphragm to adjust the amount of light if the image is too dark.
- 2) Don't focus by moving the stage and objective closer together – they may collide and smash the lens. Only focus by moving them away from one another!!!!
- 3) **NEVER** use the coarse adjustment knob when you are looking through the high power objective! Only use the fine adjustment knob.
- 4) Use special lens paper to clean the lenses.
- 5) Don't horseplay in the lab – these microscopes are expensive and break easily!!!

### How to make a wet mount slide

- 1) Cut out an "e" from the paper and place in the center of the slide.
- 2) Add 1 drop of water (not too much!)
- 3) Holding the cover slip gently, place one edge next to the drop of water.
- 4) Hold it a 45° angle and slowly lower.
- 5) There shouldn't be any air bubbles or excess water.



### Intro to Microscopes Lab

- 1) Stay in your seats! Raise your hand if you need to get up for any reason.
- 2) You must have the Microscope Quiz (100% correct) signed by me before you begin.
- 3) Start with Task 1. If you are waiting for a Microscope, begin Tasks 4, 5, or 6.
- 4) After everyone at your group is done Task 1, you may begin Task 2.  
(\*Save Task 3 for tomorrow.)
- 5) Keep your workstation neat & clean. Don't spill any water and wipe the slides clean!