

The Compound Light Microscope



What is it?

- The microscope pictured above is a compound light microscope.
- The term *light* refers to the method by which light transmits the image to your eye.
- *Compound* deals with the microscope having more than one lens.
- *Microscope* is the combination of two words; "micro" meaning small and "scope" meaning view.

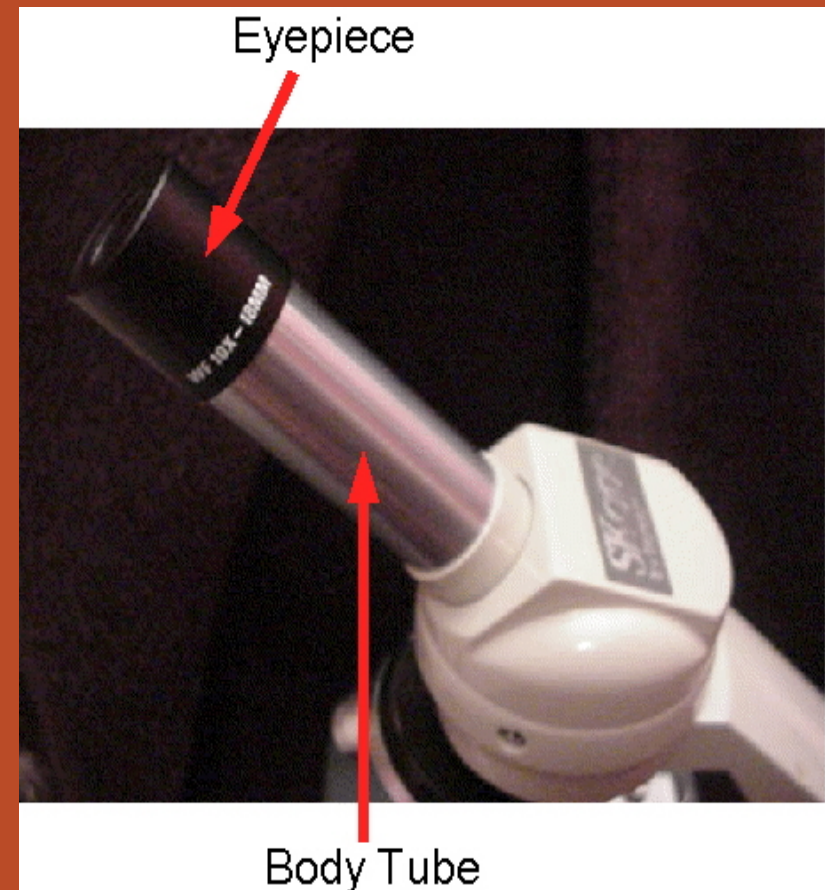




Parts and Uses

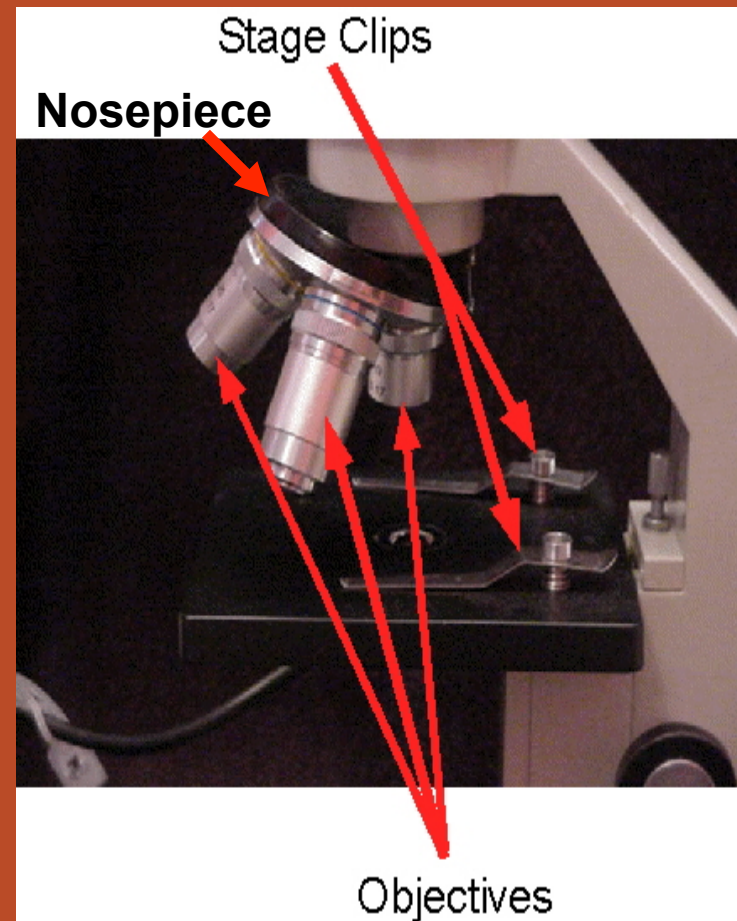
Eyepiece and Body Tube

- The *eyepiece* contains the ocular lens which magnifies objects a given amount that is listed on the eyepiece.
- The *body tube* supports the eyepiece and objectives.
- How much do our microscopes magnify?



Nosepiece, Objectives, and Stage Clips

- The *nosepiece* holds the 3 objectives.
- The *objective lenses* range in magnification from 4X, 10X, and 40X.
- The *stage clips* holds the slide in place.



Magnification

- What happens as the power of magnification increases?

Total Magnification:



X



= 40 X

4X Scanning Objective 10X Eyepiece



X



= 100 X

10X Objective 10X Eyepiece

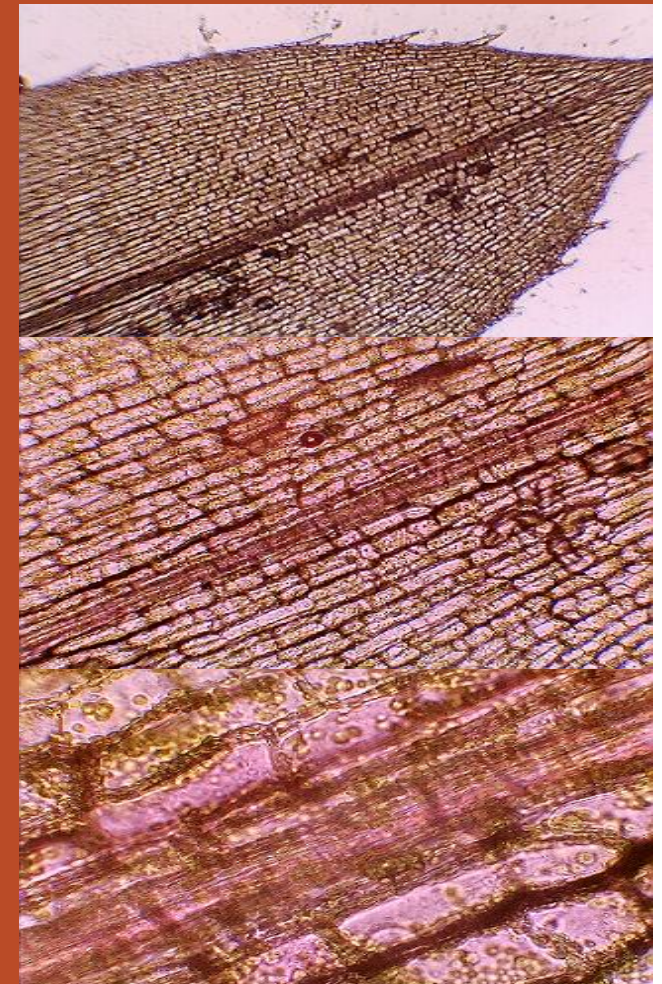


X



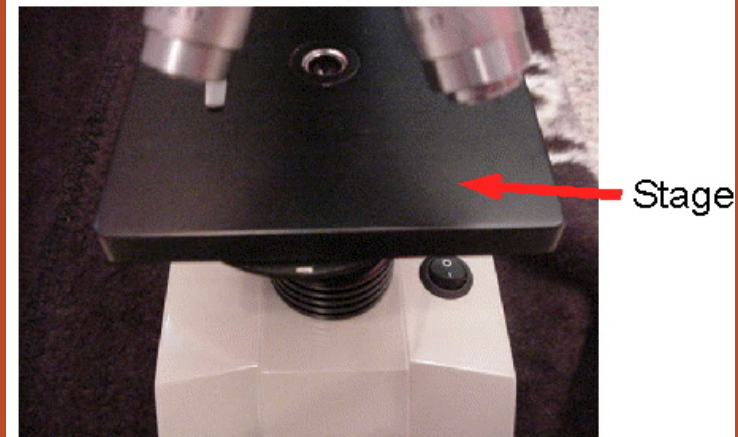
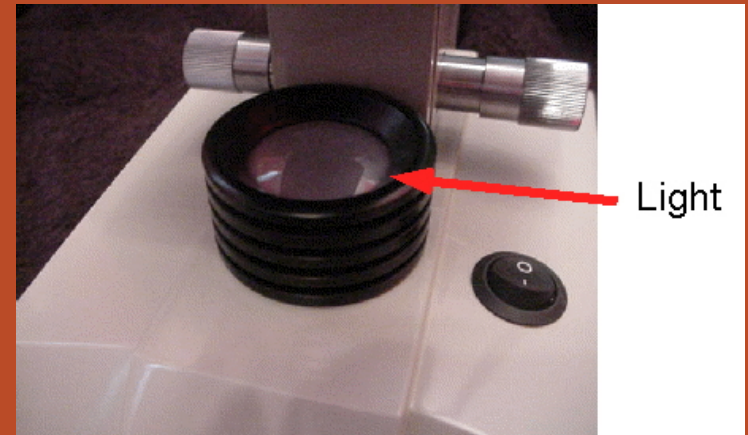
= 400 X

40X Objective 10X Eyepiece



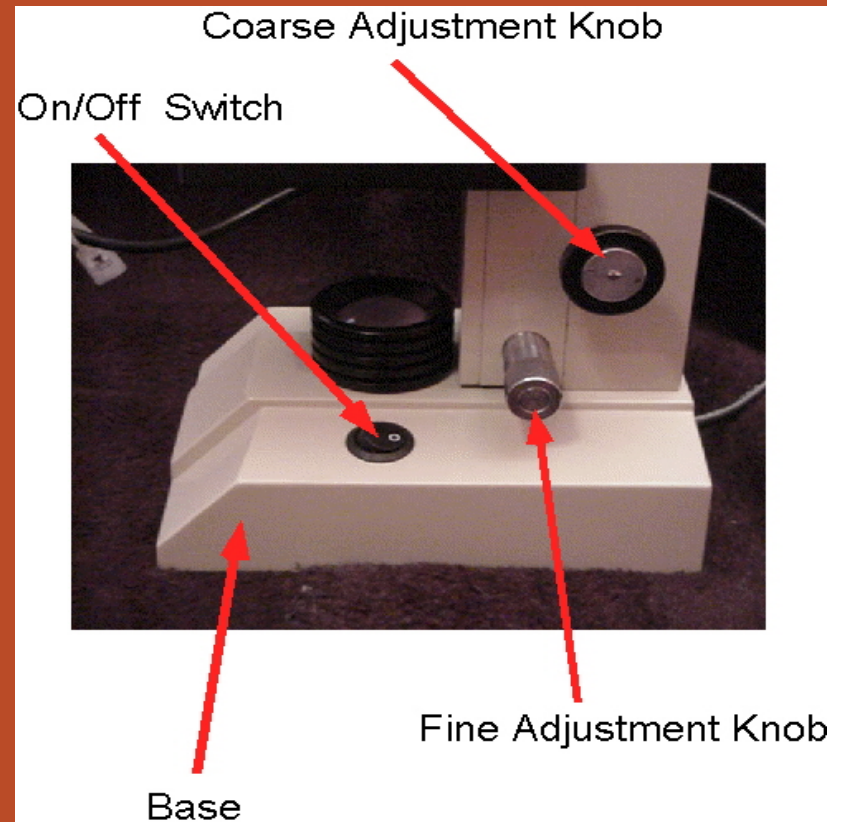
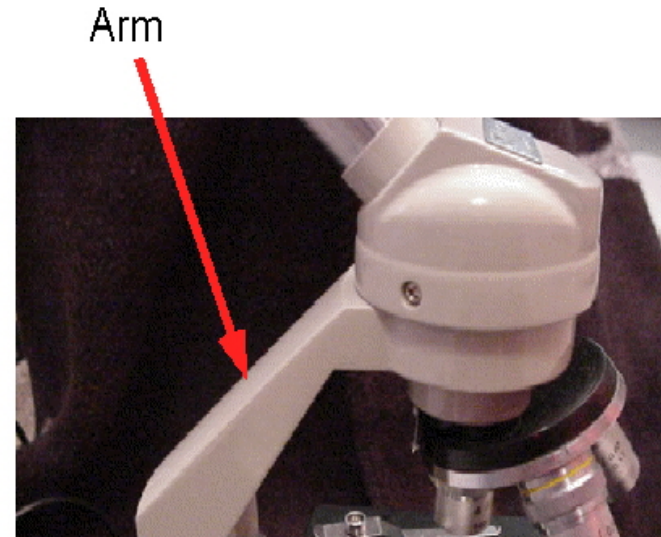
Stage, Light, and Diaphragm

- The *stage* supports the slide being viewed.
- The *light source* projects upward through the diaphragm, the specimen, and the lenses.
- The *diaphragm* regulates the amount of light on the specimen.



Arm and Base

- The *arm* is used to support the microscope when it is carried.
- The *base* supports the microscope.



Coarse Adjustment Knob

- Moves the stage up and down for focusing.
- **NOT TO BE USED WITH ANY OTHER OBJECTIVE BUT THE 4X**



Fine Adjustment Knob

- Moves the stage slightly to sharpen the image.
- Used with the 10X and 40X objective to focus.

