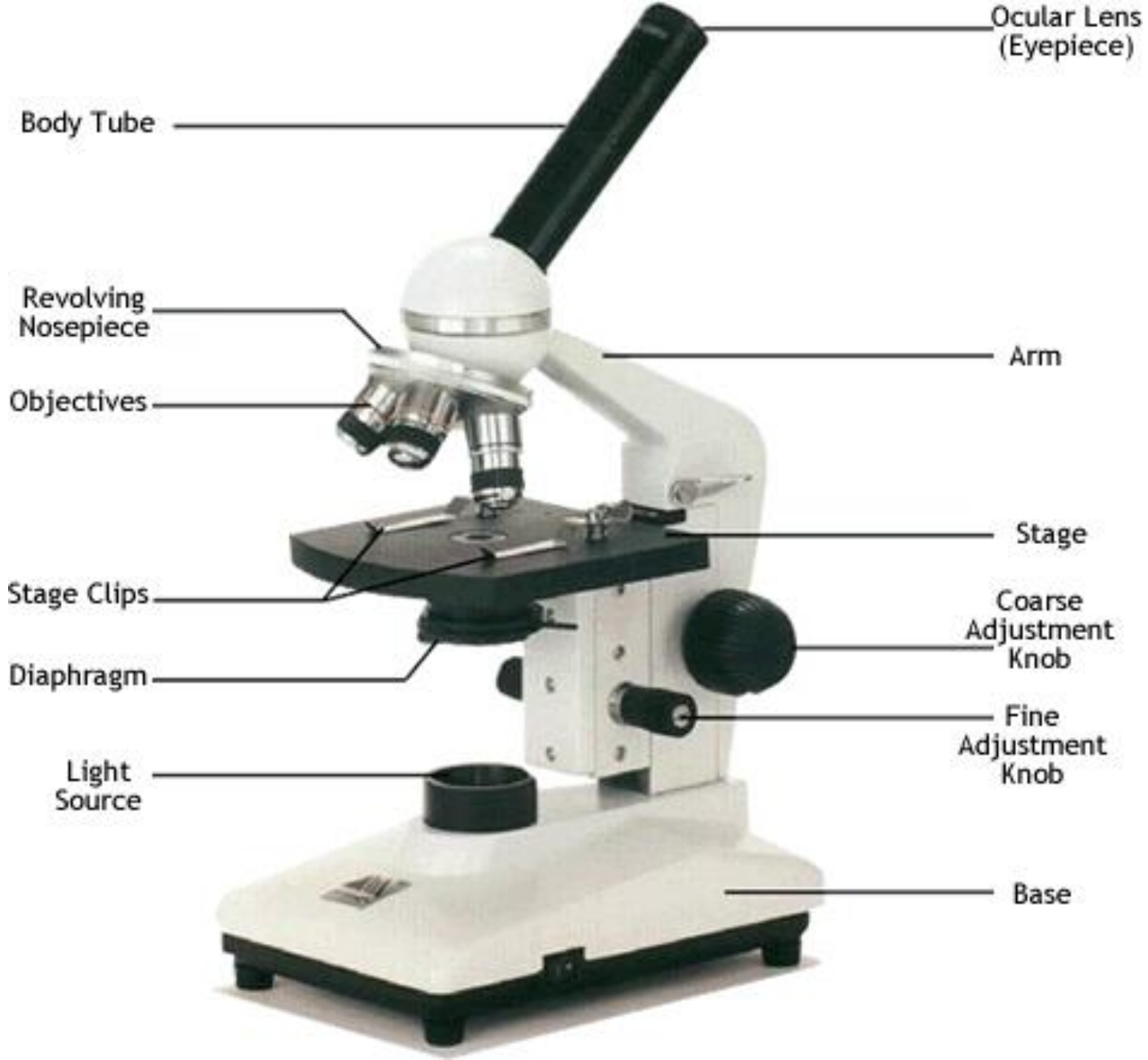
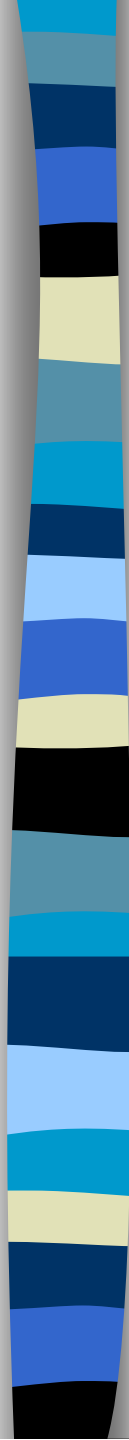


MICROSCOPE UNIT



A decorative horizontal bar consisting of a series of colored segments in shades of blue, teal, yellow, and black, arranged in a slightly wavy pattern across the width of the slide.

FUNCTIONS OF MICROSCOPE PARTS



Arm

n The basic frame, used to CARRY the microscope.



BASE

n The bottom stand, which houses the **LIGHT.**



Body Tube

n Contains **MIRRORS** to reflect light to the eyepiece.

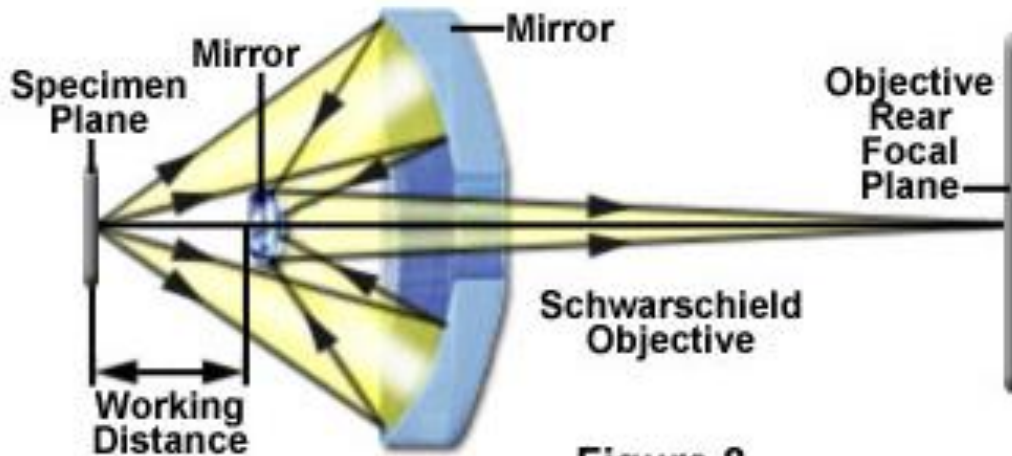


Figure 8



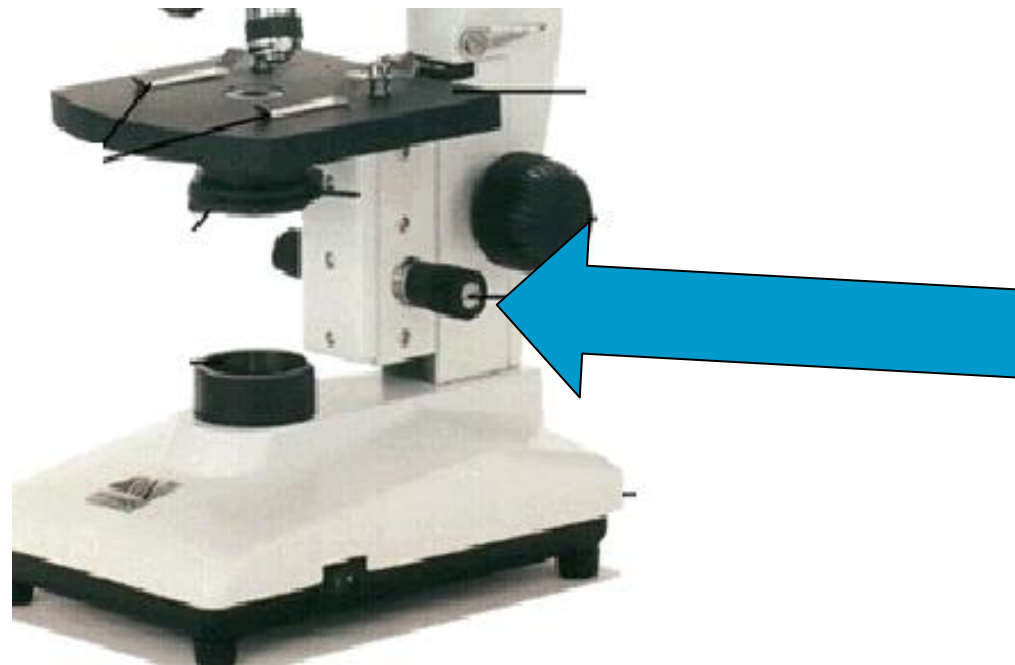
COARSE Adjustment

- n Roughly focuses the image by bringing the specimen and objective lenses closer together or farther apart.



FINE ADJUSTMENT

- n **SHARPENS** the image of the specimen, by moving the specimen and objective lenses very small distances closer together or farther apart.



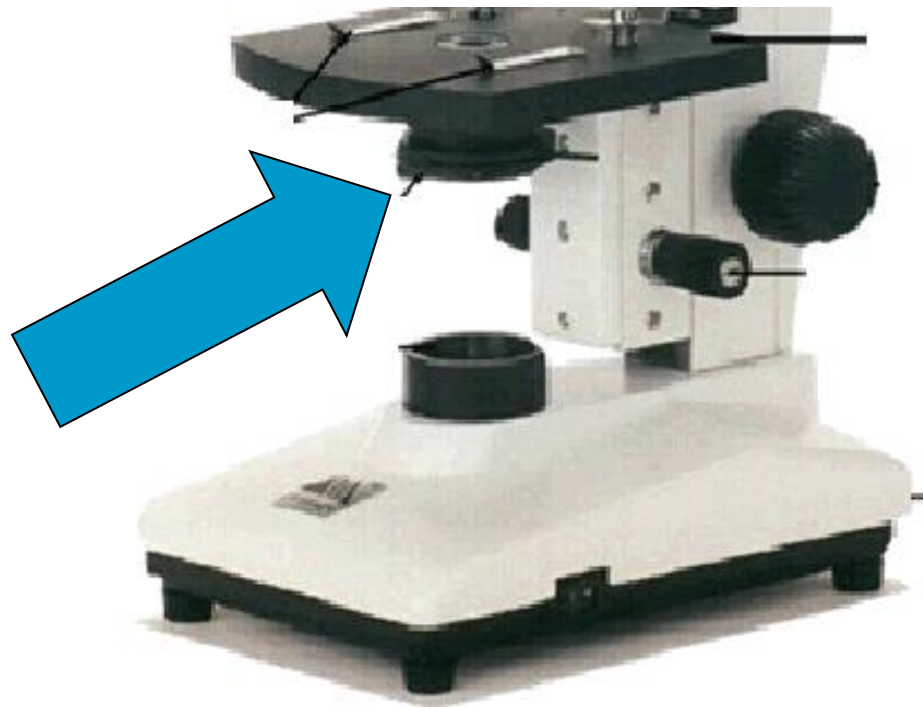
Fine Adjustment



Diaphragm



- n A disc-shaped device, located beneath the stage, used to control the AMOUNT of LIGHT passing through the specimen.



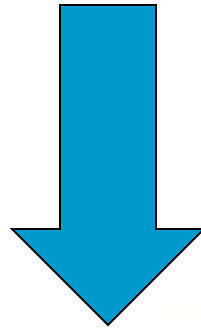
Eyepiece

- n The **UPPER** lens, nearest your eye, which magnifies the image already magnified by the objective and brings the light rays to a focus at the eye.



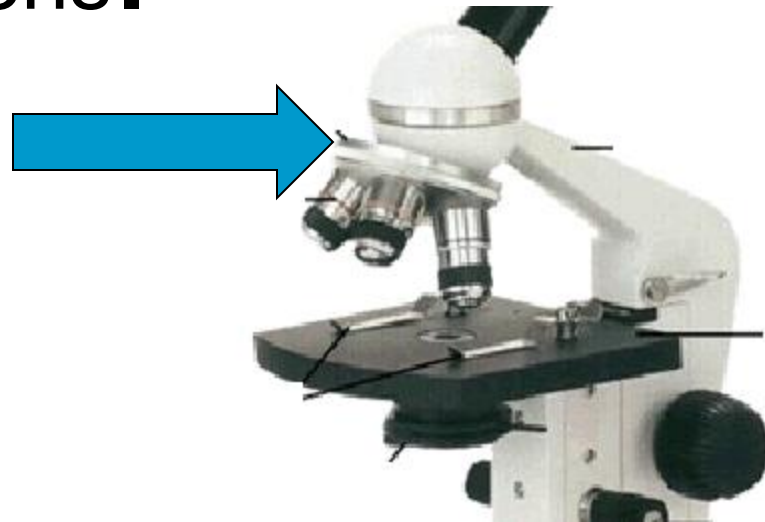
Light

n The **SOURCE** of the light which passes through the specimen.



Nosepiece

- n The **REVOLVING** part that supports three objectives with different magnifications.



Objective

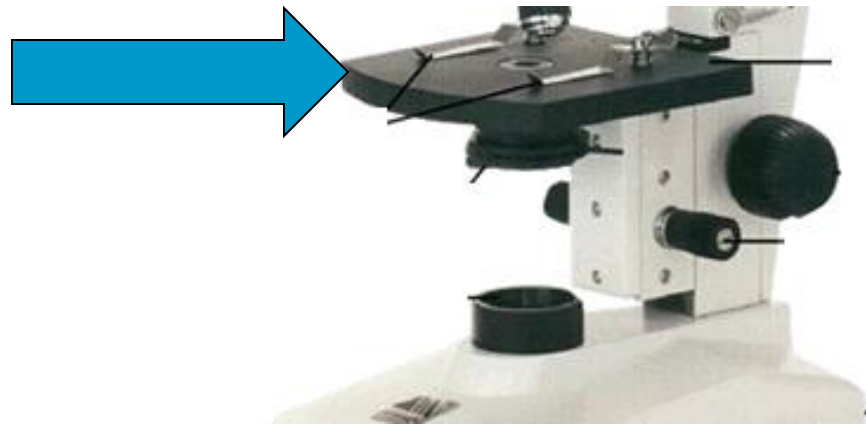
- n The lenses closest to the specimen, that **MAGNIFIES** the image of the specimen.



STAGE

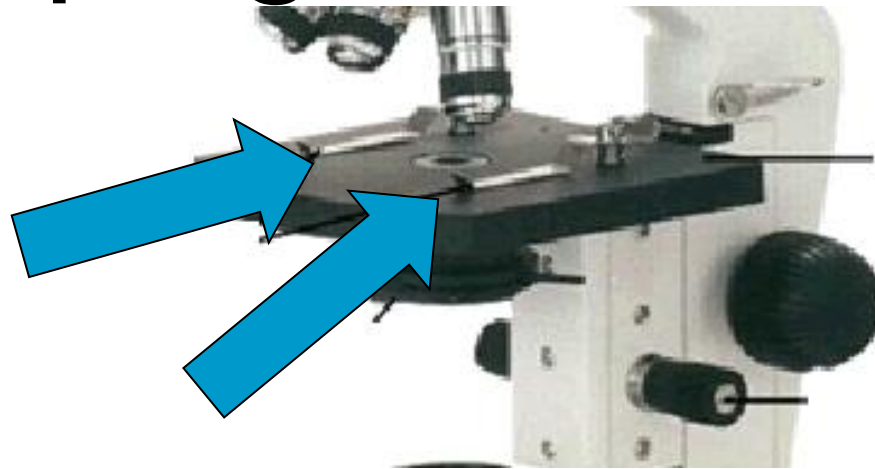


n The flat table-like **AREA** where the slide or specimen is placed.



Stage Clips

n **HOLDS** the slide on the stage, to prevent it from slipping around.



Microscope Unit



Microscopic Terms



Slide

n A piece of **GLASS**
upon which the
specimen is placed for
viewing.



Cover Slip

n A thin **SQUARE** piece of glass or plastic used to **COVER** the specimen.



High power

- n The high power objective on the nosepiece (usually 40x).



Medium power

- n The middle power objective on the nosepiece (usually 10x).



Low power

- n The lowest power objective on the nosepiece (usually 4x).



Magnification

- n The number of **TIMES** an objects apparent size is **INCREASED** by the lens system.
- n The total magnification of the lens system is determined by **MULTIPLYING** the power of the objective times the power of the eyepiece (usually 10x).



Resolution

n The ability of the lens system to distinguish and **SEPARATE** fine details in a specimen.



Field of view

- n The AREA of the specimen which is seen through the lens system. The bright circle you see when looking into a microscope.



Depth of field

- n The ability of a lens system to furnish a distinct image **ABOVE** and **BELOW** the focal plane. Depth of focus decreases with the increase of magnification.



Parfocal

- n When the objective is in focus, it can be **SWITCHED** from one power to another, with only small fine focus adjustments being necessary.

Microscope Unit



Use of the Microscope



Use of the Microscope

- n 1. Carry with **BOTH** hands.
- n 2. Set the microscope in from the **EDGE** of the desk.



Use of the Microscope

- n 3. Use lens paper to **CLEAN** eyepiece and objectives.
- n 4. **START** with the **LOW** power (shortest objective) in place.



Use of the Microscope

- n 5. Turn the coarse adjustment so that the **STAGE** is as close to the low power as possible -- now while looking, turn the coarse adjustment so the stage starts to move away from the objective.
- n 6. **CLEAN** up all spills and moisture from stage before putting away.



Use of the Microscope

- n 7. Caution -- keep all **WATER** away from electrical parts
- n 8. Never use the **COARSE** adjustment with the **HIGH** power objective while trying to focus, because of the danger of striking and breaking the glass slide with the objective.