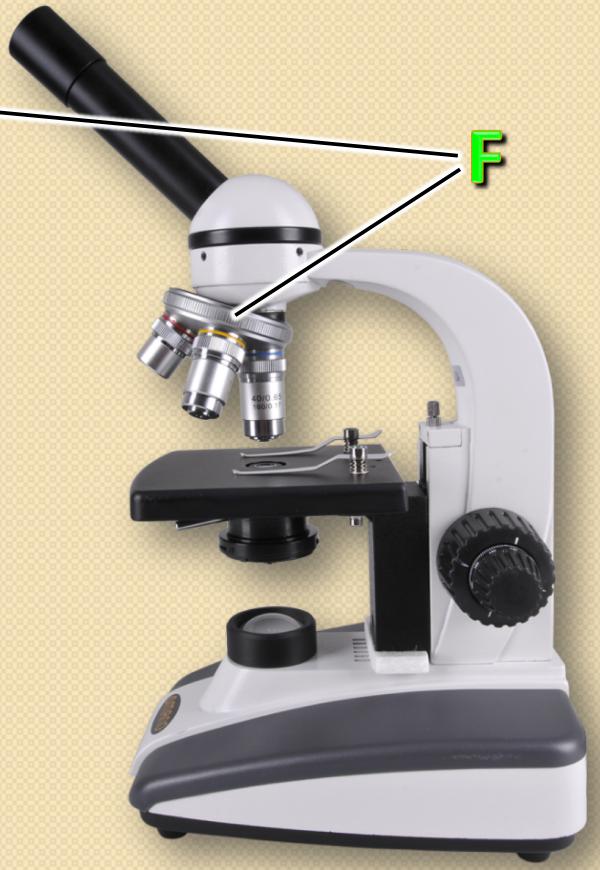
PARTS OF THE COMPOUND LIGHT MICROSC

Revolving/Rotating Nose Piece



- The objective lenses are attached to it.
- Rotating the nose piece allows you to switch between the different lenses.

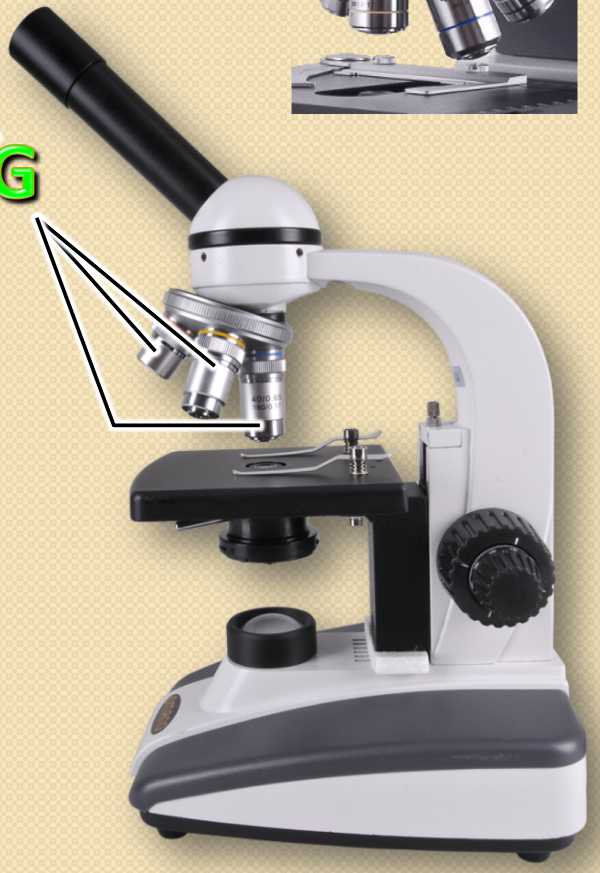
PARTS OF THE COMPOUND LIGHT MICROSCOPE

Objective Lenses

Low (scanning) 4 X

Medium 10 X

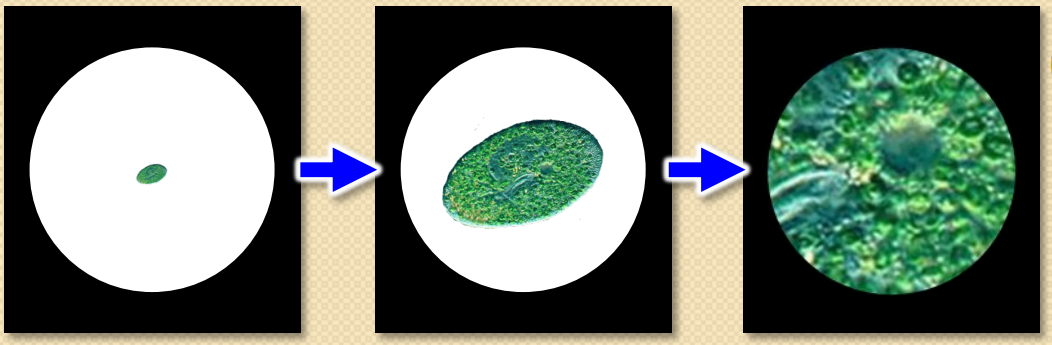
High 40 X

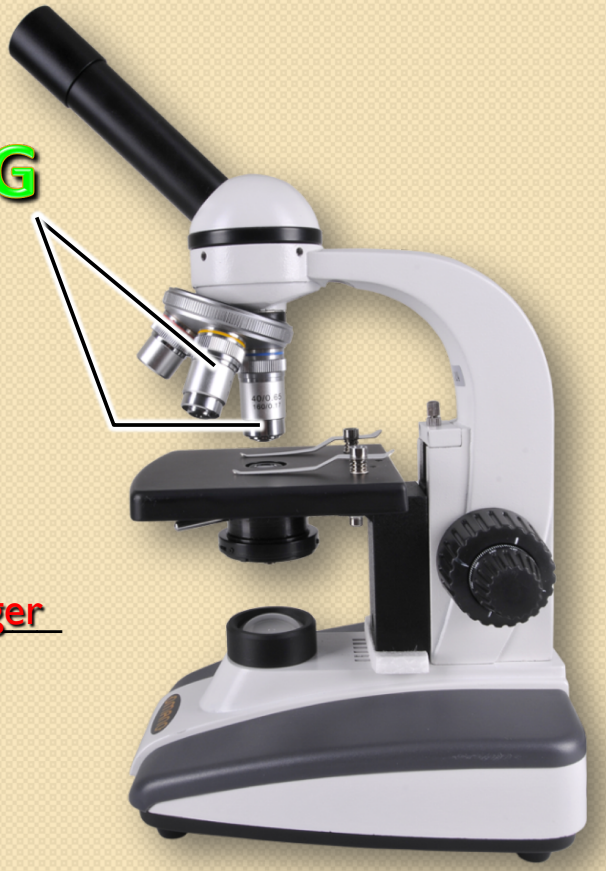


- These lenses further _magnify_ the image of the specimen.
- The magnifications are usually _4 X_ , _10 X_ and _40 X_ .
- There are usually _3_ lenses but some have _4_ lenses.

PARTS OF THE COMPOUND LIGHT MICROSCOPE

Objective Lenses

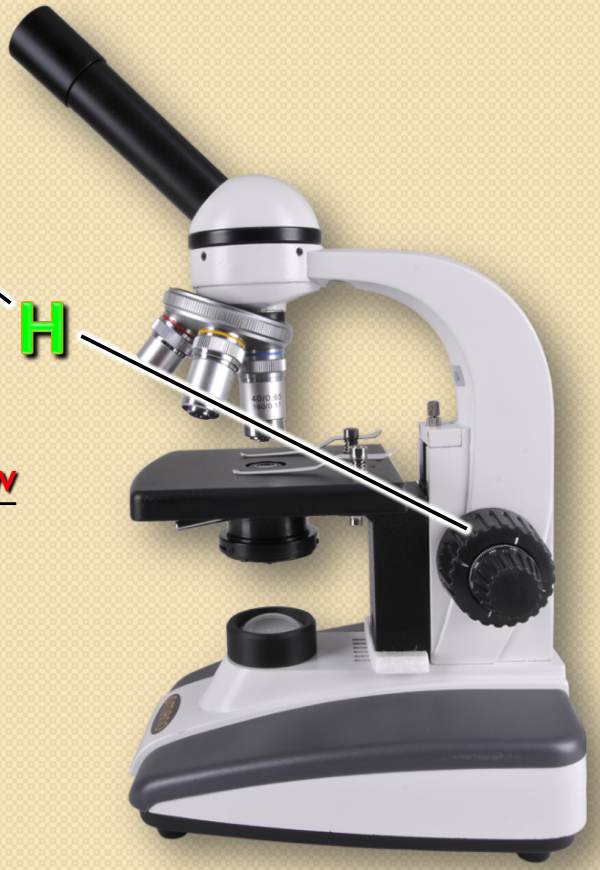




- As the power increases, the magnification becomes larger , but the field of view (visible area) becomes smaller .

PARTS OF THE COMPOUND LIGHT MICROSCOPE

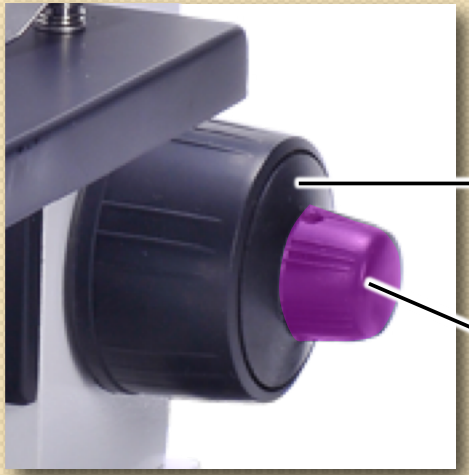
Coarse Adjustment Knob

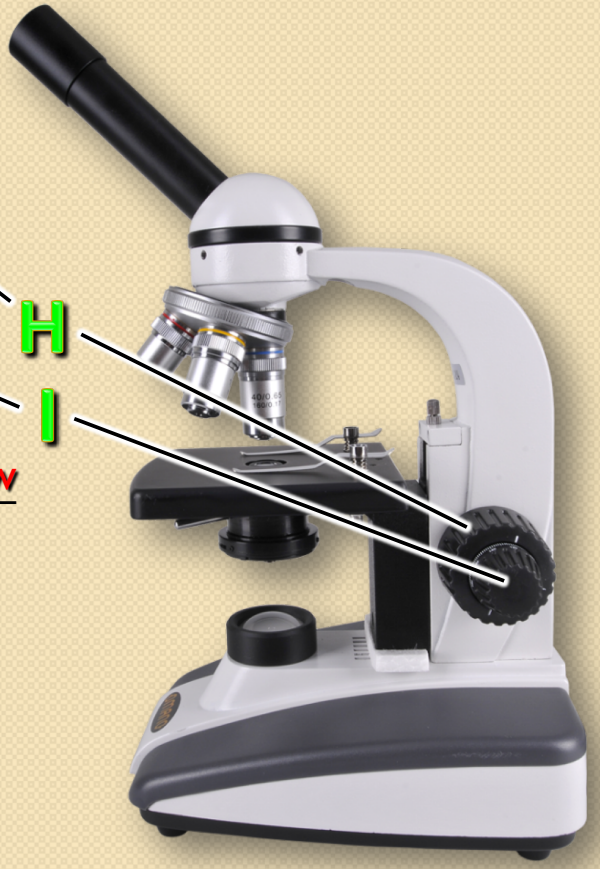


- The first knob you should use, and always under low power. Never use it in high power.

PARTS OF THE COMPOUND LIGHT MICROSCOPE

Fine Adjustment Knob

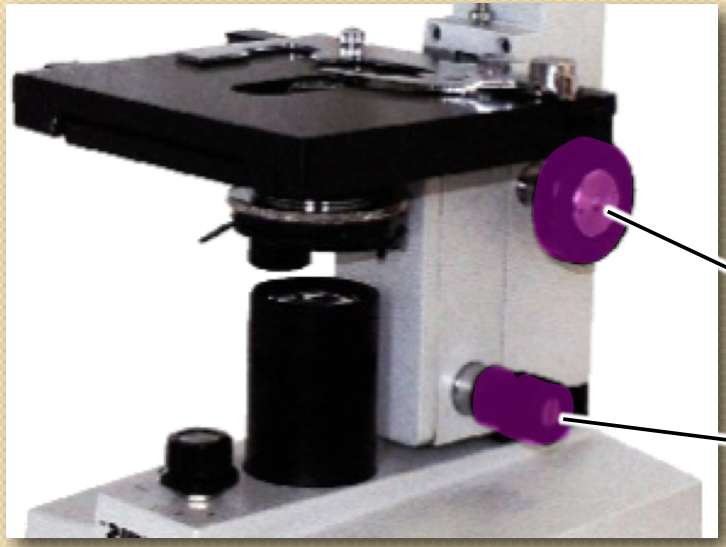


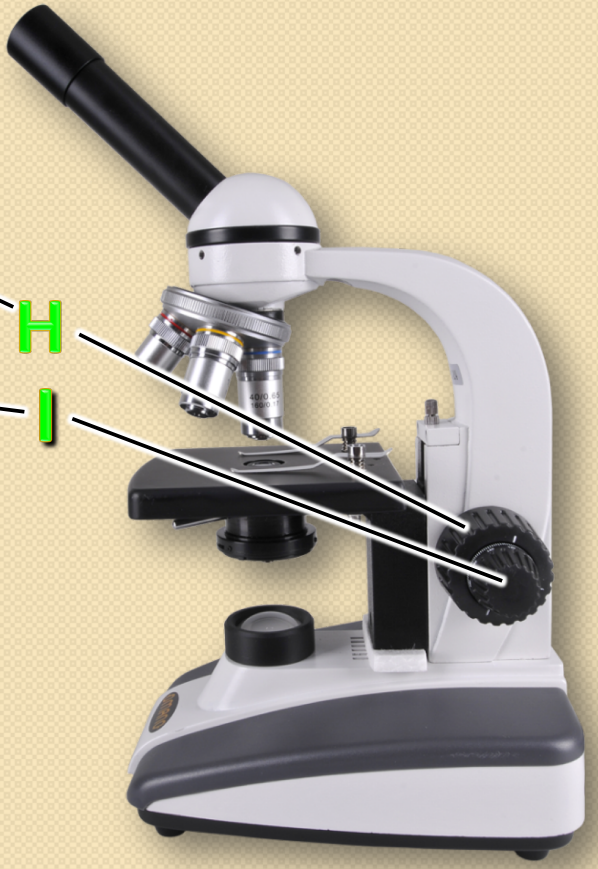


- The first knob you should use, and always under low power. Never use it in high power.
- The second knob you should use under higher power for exact focusing.
- Both knobs move the stage up and down to help put the specimen in focus.

PARTS OF THE COMPOUND LIGHT MICROSCOPE

Fine Adjustment Knob

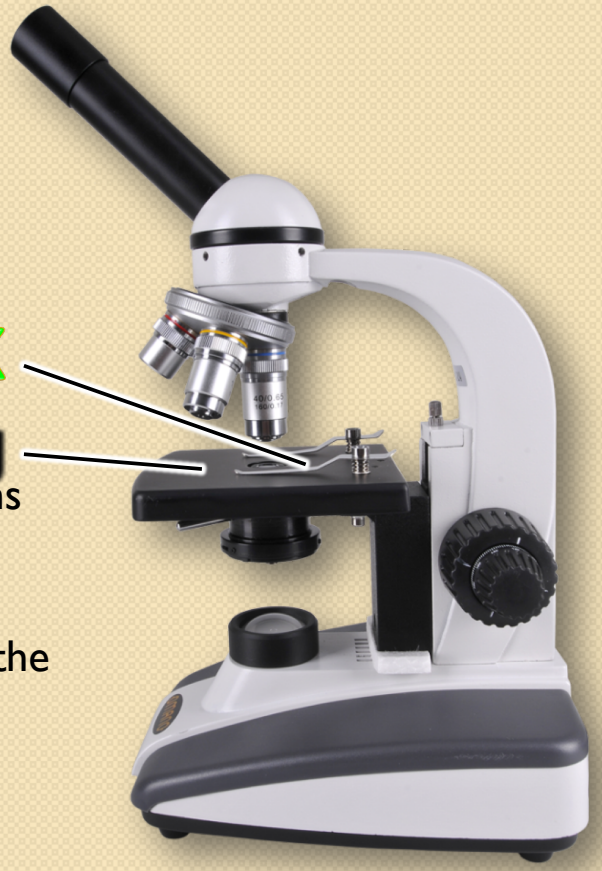




- Some microscopes have the two knobs located one on top of the other.
- The smaller one on the bottom is always the fine adjustment knob.

PARTS OF THE COMPOUND LIGHT MICROSCOPE

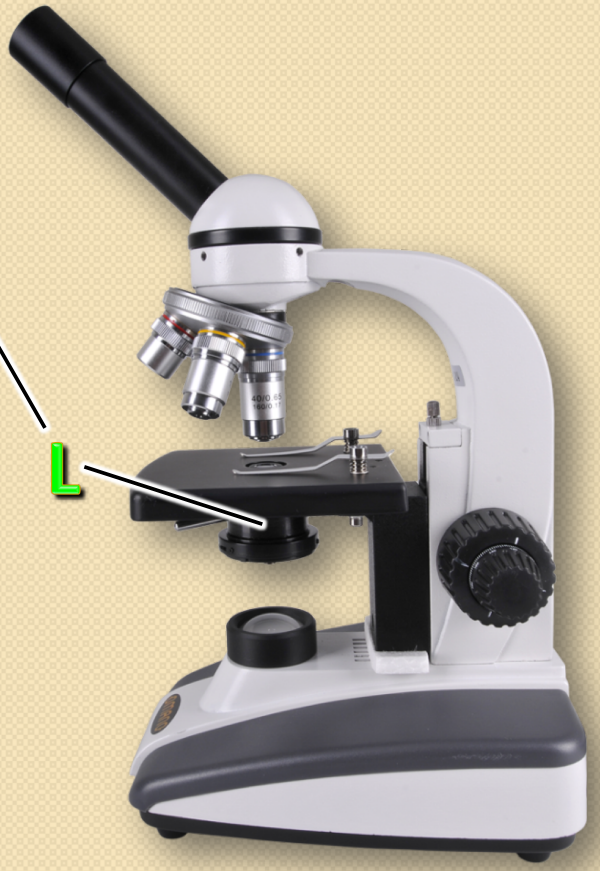
Stage AND **Stage Clips**



- The stage is where you place the _slide_ which contains the _specimen_.
- It contains a _hole_ that allows _light_ to pass through the stage and onto the specimen.
- The stage clips _secure_ the slide on the stage.

PARTS OF THE COMPOUND LIGHT MICROSCOPE

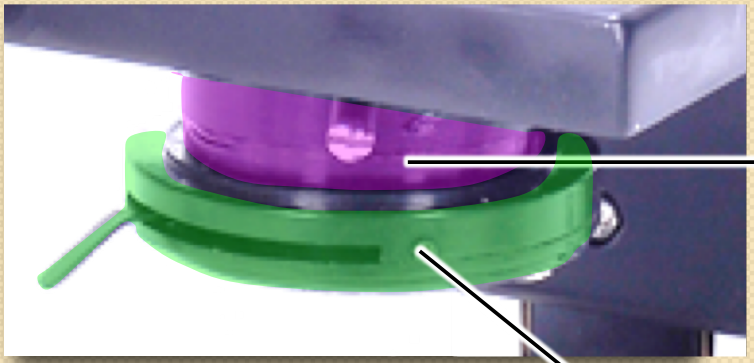
Condenser Lens

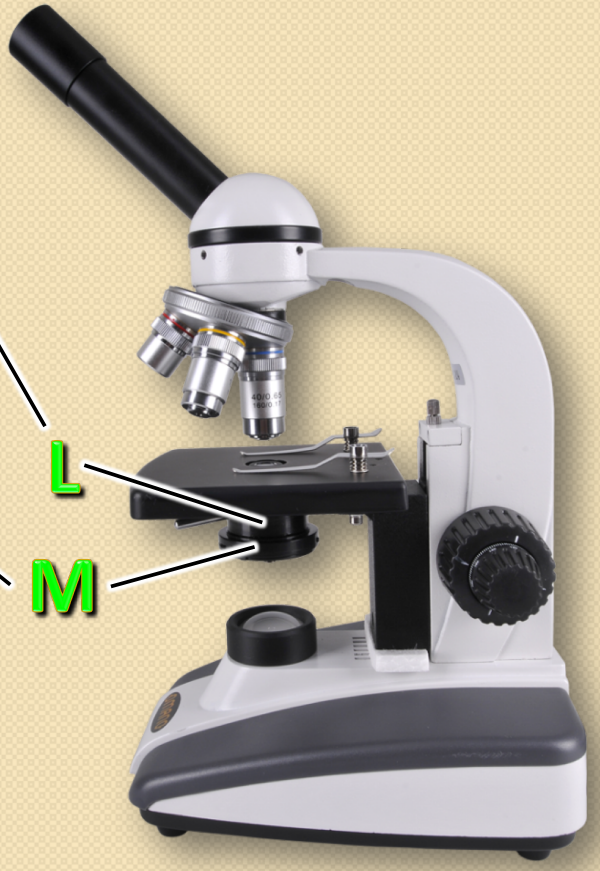


- The lens under the stage that focuses light from the illuminator through to the hole in the stage.

PARTS OF THE COMPOUND LIGHT MICROSCOPE

Diaphragm





- The lens under the stage that **focuses light** from the illuminator through to the **hole** in the stage.

- It contains a dial that rotates to **adjust** the **amount of light** that reaches the specimen.

PARTS OF THE LIGHT MICROSCOPE

A. **EYEPIECE**
Contains the **OCULAR** lens

B. **NOSEPIECE**
Holds the **HIGH**- and **LOW**- power objective **LENSES**; can be rotated to change **MAGNIFICATION**.

C. **OBJECTIVE LENSES**
Magnification ranges from **10** X to **40** X

D. **STAGE CLIPS**
HOLD the slide in place

E. **STAGE**
Supports the **SLIDE** being viewed

F. **LIGHT SOURCE**
Projects light **UPWARDS** through the diaphragm, the **SPECIMEN**, and the **LENSES**

G. **BASE**
Supports the **MICROSCOPE**

H. **DIAPHRAGM**
Regulates the amount of **LIGHT** on the specimen

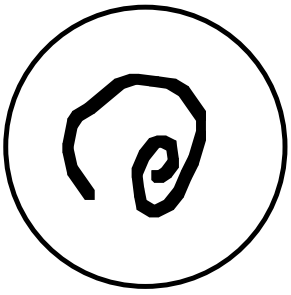
I. **FINE ADJUSTMENT KNOB**
Moves the stage slightly to **SHARPEN** the image

J. **COARSE ADJUSTMENT KNOB**
Moves the stage up and down for **FOCUSING**

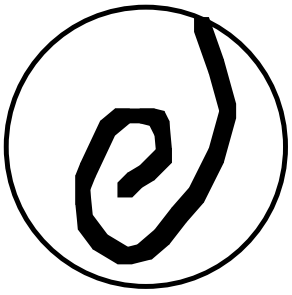
K. **ARM**
Used to **SUPPORT** the microscope when carried

What happens as the power of magnification increases?

Power = 10 x 4 = 40



Power = 10 x 10 = 100



Power = 10 x 40 = 400