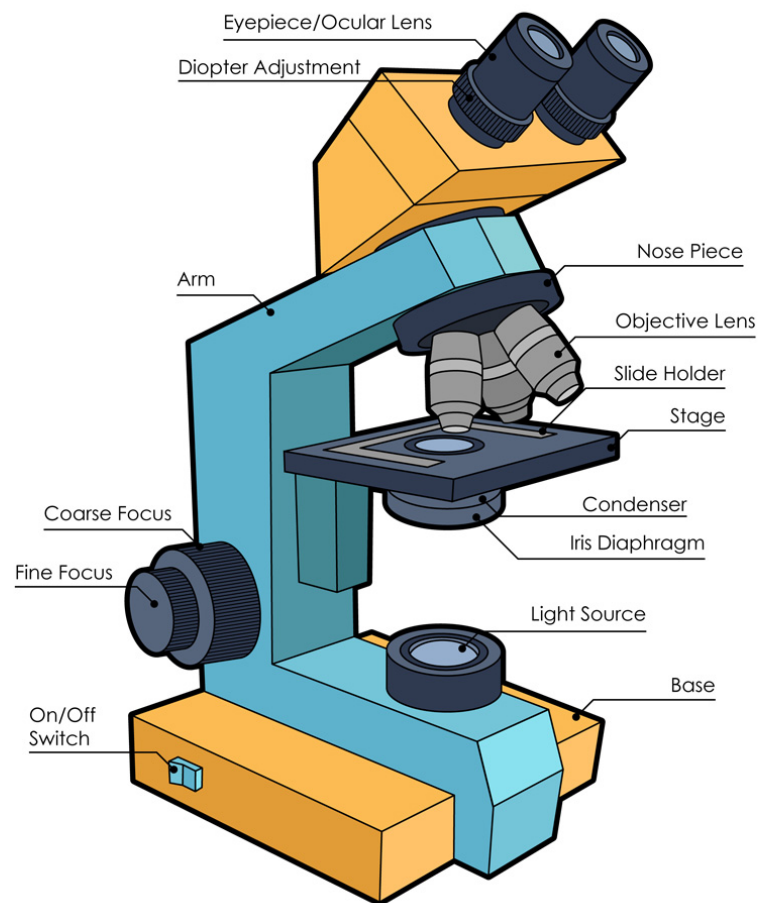


THE MICROSCOPE

COMPOUND Microscope -> MOST COMMON MICROSCOPE TODAY
-> MEANS 2 OR MORE LENSES

Parts of a Microscope



www.timvandevall.com

Copyright © Dutch Renaissance Press LLC

EYEPiece - contains the lens that magnifies

COURSE ADJUSTMENT KNOB - MOVES STAGE UP & DOWN
TO FOCUS ON OBJECT / PRODUCE CLEAR IMAGE

FINE ADJUSTMENT KNOB - BRINGS object into SHARP FOCUS

OBJECTIVE LENSES - PROVIDES DIFFERENT STRENGTHS OF MAGNIFICATION COMBINED W/ EYEPIECE

REVOLVING NOSEPIECE - HOLDS THE 3 OBJECTIVE LENSES.

STAGE - SUPPORTS THE SLIDE THAT HOLDS THE OBJECT BEING LOOKED AT.

DIAPHRAGM - DIFF. SIZED HOLES TO CHANGE AMOUNT OF LIGHT PASSING THROUGH OBJECT BEING VIEWED.

LAMP - SUPPLIES THE LIGHT FOR VIEWING.

Microscope Math

EYEPIECE MAGNIFIES SPECIMEN BY 10x POWER

THREE OBJECTIVE LENSES W/ 10x, 40x & 100x POWER

TOTAL MAGNIFICATION = MULTIPLY THE 2 POWERS.

EX: $(10x)(40x) = 400x$ TOTAL MAGNIFICATION



FIELD OF VIEW - THE AREA YOU CAN SEE

$$\text{F.O.V.} = \frac{\text{DIAMETER OF FOV (mm)}}{\text{TOTAL MAGNIFICATION}}$$

$$= \frac{2 \text{ mm}}{10x}$$

$$\text{FOV} = 0.2$$