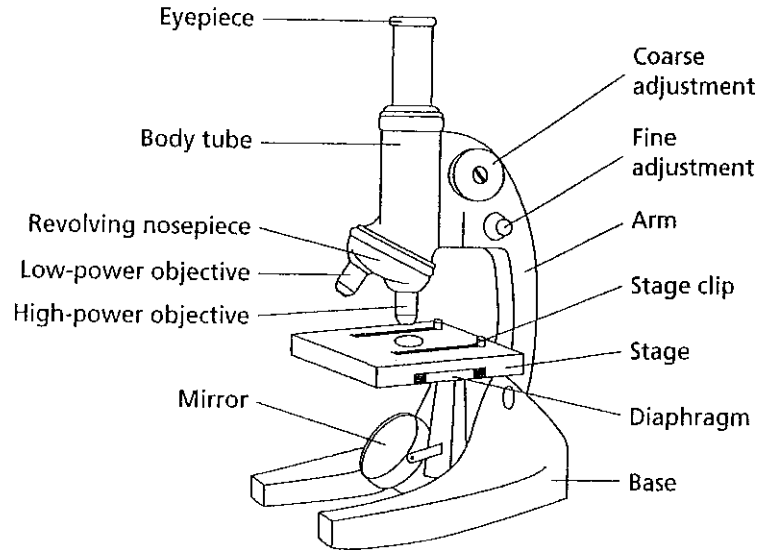


Notes: MICROSCOPE

Part 1—Learning the Compound Light Microscope

1. Complete the following data table as you do Part 1.



Function of the Parts of a Compound Light Microscope

Microscope part	Function
Eyepiece (magnification: _____)	
Body tube	
Arm	
Stage	
Coarse adjustment	
Fine adjustment	
Lamp or mirror	
Revolving nosepiece	
Low-power objective (magnification: _____)	
High-power objective (magnification: _____)	
Diaphragm	
Base	

Procedure for using a microscope:

1. Always carry the microscope using **BOTH** hands. One hand should be under the base and the other hand on the arm.
2. Locate the different parts of the microscope.
3. Make sure the body tube is all the way up using the coarse adjustment and the nosepiece is turned to low power.
4. Carefully place your slide on the stage securing it with the stage clips.
5. Looking from the side, slowly turn the coarse adjustment to lower the body tube to a position close to the slide.
6. Look through the eye piece. Always keep both eyes open as you look into the eyepiece. Focus using the coarse adjustment by **SLOWLY** turning it away from you.
7. Complete the focus by using the fine adjustment moving it **SLOWLY** back and forth.
8. To increase the power of magnification, looking to the side **SLOWLY** turn the nose piece to a greater magnification. To focus use the fine adjustment turning it **SLOWLY** back and forth. **NEVER** use the coarse adjustment on high power.

Magnification: quality of making the image larger than actual size

Eye Piece	Nose Piece	Total Magnification
10 X	4 X	40X
10X	10X	
10X	40X	

Resolution: measure of the clarity of an object (sharpness of the object)

Types of Microscope

1. Light microscope: light passes through one or more lenses to magnify the image
2. Electron microscope: uses a beam of electrons passing through the image to magnify the object

Measuring Cells

- Most cells are too small to be seen with the naked eye and can only be seen using a microscope.
- To measure the size of an organism we use the metric system (SI)
- Most cells are measured in units of nm (nanometers) or μm (micrometers)