

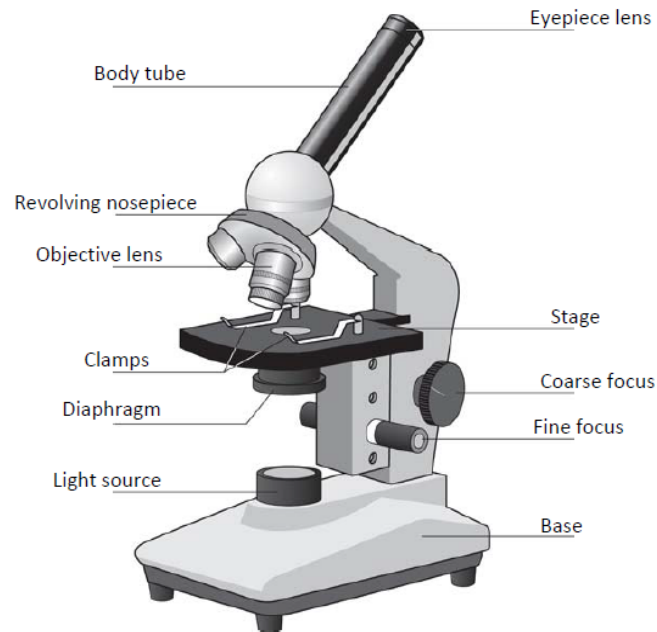


How to use a microscope



LO: To be able to explain how to use a microscope to produce a clear image of a plant and animal cell

Parts of the microscope:



Part of microscope	Function
Stage	Area where specimen is placed
Clamps	Hold the specimen still whilst it is being viewed
Light source	Illuminates the specimen
Objective lens	Magnifies the image of the specimen
Eyepiece lens	Magnifies the image of the specimen
Course/fine focus	Used to focus the specimen so it can be seen clearly
Revolving nose piece	Holds 2 or more objective lenses

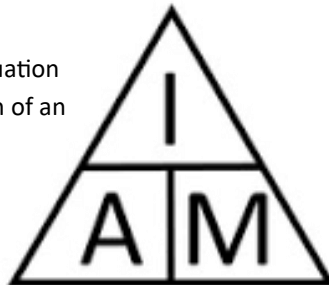
Using a microscope

To view an object down the microscope we can use the following steps:

1. Plug in the microscope and turn on the power.
2. Rotate the objectives and select the lowest power (shortest) one.
3. Place the specimen to be viewed on the stage and clamp in place.
4. Adjust the course focus until the specimen comes into view.
5. Adjust the fine focus until the specimen becomes clear.
6. To view the specimen in more detail repeat the process using a higher power objective

Magnification

We can use the following equation to calculate the magnification of an object viewed through a microscope:



A = Actual size

I = Image size

M = Magnification size

Preparing a microscope slide:

To prepare a slide to view onion cells we can use the following steps:

1. cut open an onion.
2. use forceps to peel a thin layer from the inside.
3. spread out the layer on a microscope slide.
4. add a drop of iodine solution to the layer.
5. carefully place a cover slip over the layer.