



جامعة المستقبل
AL MUSTAQBAL UNIVERSITY

Chemistry sciences

Cell biology

Stage1

Lab . 1

Microscope



MSC.Jaafar Hamid jaafar
Zainab Qasim

Microscope

A Microscope is a laboratory instrument used to examine objects that are too small to be seen by the naked eye. Microscopy is the science of investigating small objects and structures using a microscope. Microscopic means being invisible to the eye unless aided by a microscope .

Types of Microscopes

- **a simple microscope** has only 1 lens
- **compound microscope** has 2 sets of lenses. It can magnify things 100 - 200 times larger than they really are
- **electron microscope** can magnify objects up to 300,000 times. They do not use lenses, but use electrons to enlarge the image .

Microscope Care

1. Always carry with 2 hands
2. .Never touch the lenses with your fingers
3. Only use lens paper for cleaning
4. Keep objects clear of desk and cords

The Parts of a Microscope

1. ocular (lens) eyepiece: the lens of the microscope that you look through
2. course adjustment :the large knob on the microscope that you turn to bring the object into focus
3. fine adjustment: the small knob on the microscope that brings the image into focus
4. arm: the part of the microscope supporting the body tube
5. .body tube: the part that holds the eyepiece and the objective lenses
6. nosepiece : the part at the bottom of the body tube that holds the objective lenses and allows them to be turned
7. objective lens : One of the most important parts of a compound microscope, as they are the lenses closest to the specimen. A standard microscope has three, four, or five objective lenses .that range in power from 4X to 100X
8. stage :the flat part below the objectives lens where the slide is placed
9. clip :the part that holds the slide in place so it doesn't move
10. .diaphragm :the part that controls the amount of light entering the field of view
11. light source :the lamp (or mirror) under the stage that sends light through the object being viewed
12. base : the bottom part that supports the rest of the microscope

