

Microscope

Lab.1

Microscope : is an instrument used to see objects that are very small for human eye .

There are many type of microscope:

1_ compound light microscope.

2- Dissecting microscope.

3-Electron microscope.

* A compound light microscope has many different part that work together to produce a magnified image of a specimen

* Compound light microscopes use **a combination of lenses and light** to magnify a small object on a slide in two – dimension.

The important parts of the compound microscopes.

1-ocular lens (eye piece): is located at the top of the microscope, alone magnifying image 10X, some of them have pointer **which important** to point on specific part of a specimen.

2-Body tube : it is connect the eye piece to the nose piece of the microscopes.

3- Revolving nose piece :it is rotating disc , which hold the objective lenses ,it is used to change the objective from power to another.

4- Objective lenses : are located near the specimen , most microscope including four objective lenses:

A:scanning objective(4X) B: low power objective(10X) C:High – power objective (40X) D: Oil –immersion objective (100X) which must be always used with a drop of oil to form liquid bridge between the lens and surface of the slide being viewed

***Total Magnification = eye pieces magnified x objective magnified**

5-arm: it is connected the base to the tube .

6-stage: in which the slide placed on it.

7- stage clips: there are 2 stage clips one on each side of the stage , used to hold the slide in place.

8- coarse adjustment ; used to adjustment the distance between the stage and objective lenses , with low –power lenses

9-Fine adjustment : used to adjustment the distance between the stage and objective lenses with high-power lenses.

10- condenser :it is attached under the stage , used to focus the light onto the specimen

11- Light source : it is attached to the base that shines light on to the specimen.

12 Base: it is the bottom of the microscope

Dissecting microscope: has relative low magnification , it is used for viewing large objects in three –dimension .

Electron microscope: these microscope provide better magnification than the light microscope ,objects with a beam of electron.





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