Laboratory glassware

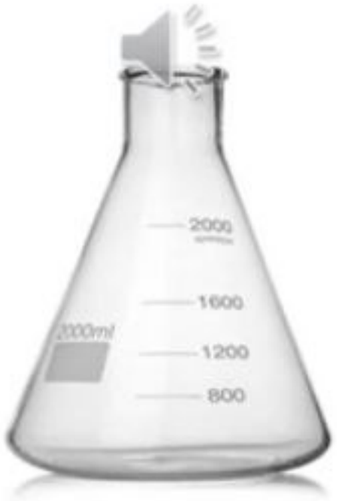
- 1-Beaker: A flat-bottomed cylindrical container, usually with a pouring lip, to measure, mix, and prepare liquids.

Laboratory glassware

- 2-Test tube: a hollow cylinder of thin glass with one end closed, used for experiments in labs.

Laboratory glassware

- 3-Flask: a bottle, usually of glass, having a rounded body and a narrow neck, used especially in laboratory experimentation.



Laboratory glassware

- 4-Cylinder: a narrow, cylindrical container marked with horizontal lines to represent units of measurement and used to precisely measure the volume of liquids.

Laboratory equipments

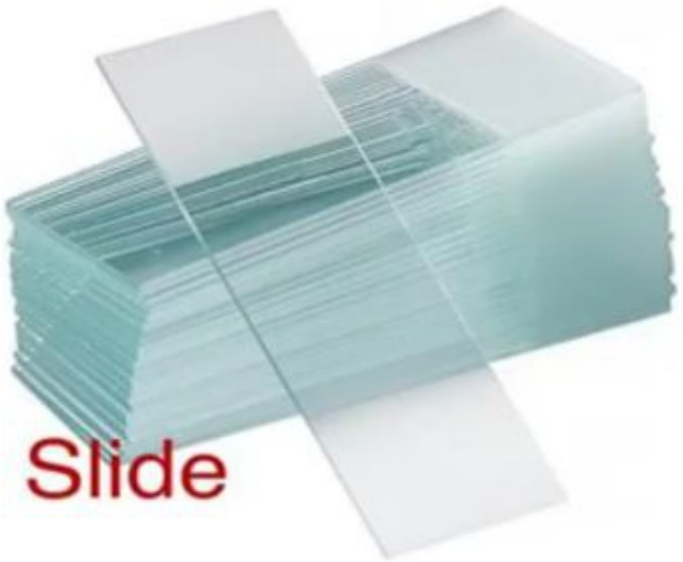
- 5-Test Tube Holder (rack): a plastic holder used to hold test tubes or dry them.

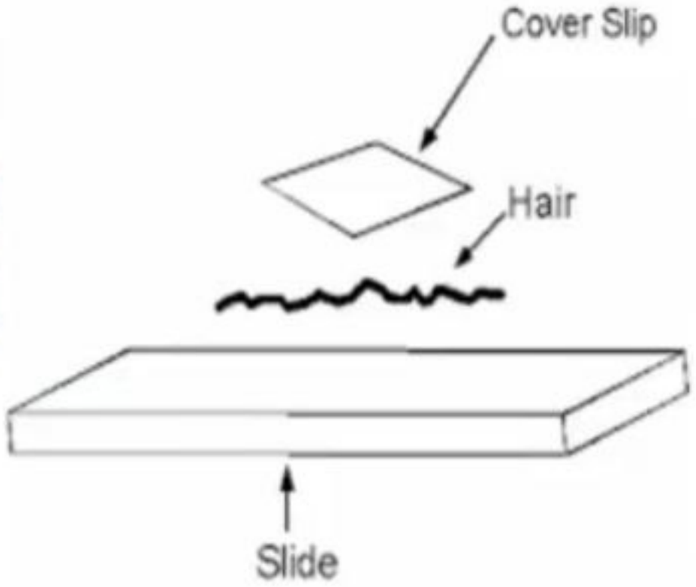
Laboratory glassware

- 6-Magnifying glass: lens that produces an enlarged image of an object.

Laboratory glassware

- 7-Slide and cover slide: a glass rectangular slide that is used for sample to be looked at under a microscope. A Cover Slide is used to place over the sample on the Slide.





Laboratory glassware

- 8-Pipette or dropper: a slender graduated tube used in a laboratory for measuring and transferring quantities of liquids from one container to another.

Laboratory glassware

- 9-Glass stirring rod: a glass, cylindrical-like stick that is used to mix solutions in a beaker. Also referred to as a “Swizzle Stick”

Microscope:

- Is an instrument used to see objects that are too small to be seen by the naked eyes. Microscopy is the science of investigating small objects and structures using such an instrument.

Devices

- **Incubator:** Incubator is a device used to grow and maintain microbiological cultures or cell cultures. The incubator maintains optimal temperature, humidity and other conditions such as the CO (CO2) and oxygen content of the atmosphere inside.

Hot air oven

- Electrical device which use dry heat to sterilize, it is used for sterilization of glassware, such as test tubes, pipettes and petri dishes. Powder and liquid substances, such as prepared media and saline solutions cannot be sterilized in standard oven, as they lose water due to evaporation. Sterilization is done at **180**℃ for 1 hour or at **160**℃ for 2 hours.

Drying Oven

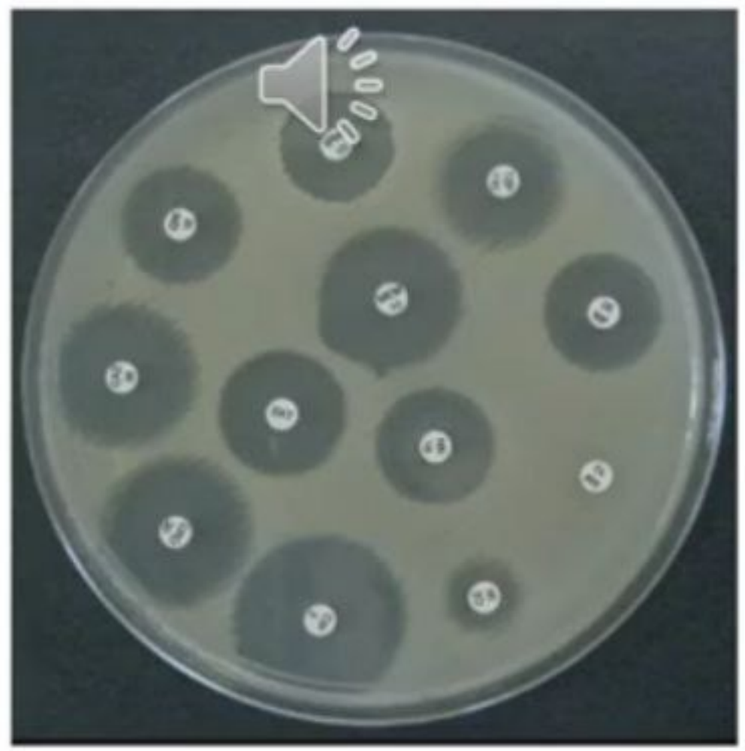
- For preparation of certain reagents, drying the glassware's, they are dried inside the drying oven at 100°C.

Hot plate

- Electric device used to obtain heat to dry the slides and heat some solutions.

Refrigerator

- Used to keep the agricultural media after pouring in dishes to be used when needed, used to keep serological test solution and to keep antibiotic disc.



Water bath

- Is a laboratory equipment made from a container filled with heated water, it used for incubation for simple periods of time such as studying the work of certain enzymes or intermittent sterilization for some agricultural media.

Bunsen burner

- Used as a flame source when sterilizing the loop or transfer needle as well as to sterilize the nozzle of tubes, glass flask and metallic tools such as tongs and scalpels when sterilized ends, it can be used to heat the agricultural media.

Petri dish

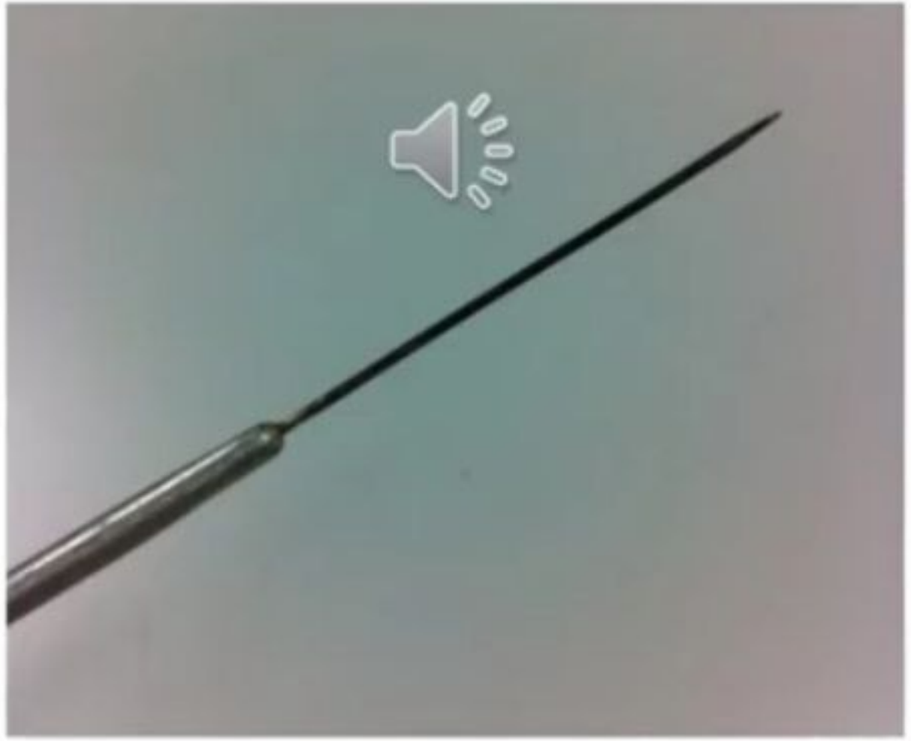
- In which agricultural media poured and kept in it in order to cultivated samples on them, these dishes are two types, glass type can be reused (possible) and plastic type cannot be reused (disposable).

Loop (Ring end)

- Used in the cultivation of microbes on plate by transferring inoculum for streaking.

Needle (straight end)

- Used for studying bacteria and fungi on semi-solid media.



Autoclave

- The device is used to sterilize the agricultural media, surgical metal tools and glassware that bear high heat, sterilization is done at a temperature 121 ℃ for 15 minutes under pressure 1.5 bar.

Centrifuge

- Used to precipitate the cells and the suspended materials in the solution.

Electronic Top-pan Balance

- It is used for weighing large quantities of media and other chemicals, where precise weighing is not of much importance.