

Common Laboratory Apparatus and Equipments

Laboratory Apparatus: The substances that are required to carry out experiments are known as apparatus. Some common apparatus that are required in a chemistry laboratory are discussed below.

- **Test tube:** It is a glass tube with one end open and the other closed. The test tubes are of different types and made of different types of glass.
- **Test tube stand:** It is a plastic or wooden stand for keeping test tubes. It has holes as well as bars to keep the test tubes upright and inverted position respectively.
- **Test tube holder:** It is an iron tong with plastic or wooden handle. It is used to hold a test tube when the substance is being heated or strong chemicals like acids or alkalis are being poured into the test tube.
- **Beaker:** It is an open glass container with a lip for pouring liquids. It is of various sizes and used to store and mix chemicals.
- **Round-bottom flask:** It is glass container with a spherical bulb and a narrow cylindrical neck. It is generally used for heating liquids.
- **Flat-bottom flask:** It is a glass container having a spherical bulb with a flattened base and a narrow cylindrical neck. It is used for storing and mixing liquid chemicals and should not be used for heating purposes.
- **Conical flask:** It is a conical shaped flat-bottom flask. It is used for storing and mixing liquid chemicals.
- **Glass tubing:** It is a hollow glass tube of 1.5 mm radius, which is open at both ends. It is shaped to make delivery tubes of different shapes by heating.
- **Glass rod:** It is solid tube of 1.5 mm radius. It is used for stirring liquid chemicals.
- **Funnel:** It is conical shaped vessel with a long tapering neck. It is made of either glass or plastic. It is of various sizes and used to pour liquids from one

vessel to another.

- **China dish:** It is a dish made of porcelain. It is used for evaporating liquids by heating and so also called evaporating dish.
- **Pipette:** It is a long narrow tube with a nozzle at one end and a bulb in the middle. It is used for measuring and transferring fixed volume of liquid chemicals.
- **Burette:** It is a long graduated tube with a stopcock at its bottom end. It is used for measuring and transferring fixed volume of liquid chemicals.
- **Measuring cylinder:** It is a cylindrical glass vessel with a flat base and a lip near the top. It is used to measure fixed volume of a liquid chemical.
- **Spirit lamp:** It consists of a tank containing liquid with a neck through which a cotton wick passes. It is used for heating.

Laboratory Safety Precautions:

- Always work under the supervision of laboratory assistant.
- Always wear a lab coat and shoes in the laboratory.
- Wash your hands properly before leaving the lab.
- Carefully handle the hot glassware and apparatus in the laboratory.
- Wash the apparatus properly after completing the experiment.