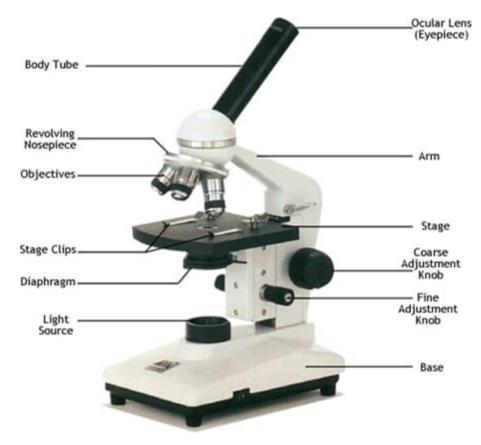
# 1. **Microscope**:

A microscope is a very basic and needed equipment in the biology laboratory. A simple light microscope (compound microscope) is the one, which is mostly used in schools and colleges and it uses natural or artificial light and a series of magnifying lenses to observe a tiny specimen. Below is the schematic diagram of a compound microscope with details of its parts:



A microscope operates on the principles of refraction of light, and takes advantage of how convex lenses bend light. There are generally two lenses - objective and oculus. The objective stays very close to the sample to be seen and makes a virtual large image of it. The oculus stays close to the eye and enlarges the previous image even further, and see that.

#### 2. Test tubes

The next very common apparatus is the test tube. They are usually cylindrical pipes made up of glass, with a circular opening on one side and a rounded bottom on the other side. They come in different sizes . Test tubes are one of the most important apparatus as they are functional from storing to mixing reagents in any chemical or biological reactions.



#### 3. Beakers:

Beakers are another cylindrical utensil made up of glass, with a flat bottom and an upper opening, which may or may not have a spout. They are of varying sizes and are used to hold, heat, or mix substances with the proper measure. Beakers come in every size from tiny 20 ml cups to liter-sized buckets, and everything in between - but 250-500 ml beakers are most common.



### 4. Magnifying glass:

A magnifying glass is one of the first introduced lab equipment. As the name suggests, it is used to view enlarged or magnified images of objects or read the small calibrations marked on many equipments.



# 5. Volumetric flask - lab equipment :

This is one of the most important equipments of any lab, which is made up of glass and is calibrated to hold a precise volume of liquids at any precise temperature. Different sizes of volumetric flasks are available, each calibrated for the exact measurement of liquids and solutions. In chemistry labs, it is mostly used in the preparation of standard solutions.



#### **6.Bunsen burner - list of lab equipment :**

This apparatus produces a single open flame and it is used for heating and sterilization purposes in the various experiments conducted in labs..



The bursen burner produces a single clean, steady, sootless flame of high temperature, and that's why it is so well-favored in laboratories. It is relatively safe to use when used with caution. Most burners are connected by gas hoses to a single distribution point on a lab workbench, which includes internal plumbing for the gas distribution network.

### 7. Dropper:

The dropper, also known as Pasteur pipette, is a common small apparatus, usually made up of plastic or glass cylinder, having a small nozzle on one side and a rubber holder on the other. It is used to put the liquids or solutions in any medium drop wise, that is, one drop at a time, a piece of necessary equipment when any reagent is required in an extremely small amount in a solution.



### 8.Thermometer:

Thermometer measure the temperature.



It is a pencil-thin tube of clear glass with graduated temperature readings with a hairline bore through its middle through which the indicator liquid rises.

# 9. Tongs - lab equipment :

Tongs, though not much in use, are common and basic apparatus in any lab. They are used to grasp and lift hot vessels and harmful substances during any kind of reaction taking place in the lab.



### 10. Analytical Balance

Analytical balances are high-precision high-sensitivity laboratory equipment that are capable of measuring even a tenth or a hundredth of a milligram. They are so sensitive to pressure on the plate that even changes in air pressure can disturb them. This is why often the weighing area of an analytical balance is boxed in a glass cubicle.



## 12. Digital-weighing-:

There are two kinds of lab weighing machines - precision balances and analytical balances. Precision balances are the most common and they can measure milligrams. Analytical balances are, however, so sensitive that even air currents can disturb them. This is why they have a glass box enclosure over the weighing plate.



# 13. Spatula:

These laboratory spatulas are very much similar to the kitchen like spatulas found in our home but they are just very smaller in size in comparison. The spatulas are usually resistant to heat and acids, hence making them suitable for large range use in the laboratory experiments.



#### 14. Burette:

Its mostly used in the titration reactions, and is handful in delivering a known volume of any substance to other equipment. This apparatus is a long-graduated tube, with a stopcock present at the lower end. It usually comes in the sizes of 10ml, 25ml or 50ml.



#### 15. Funnels:

Funnels are necessary equipment to pour substances and solutions in narrow-mouthed test tubes and conical flasks. There is variety of its available, most common ones are filter, thistle, and dropping funnels.



### 16. Crucible:

Crucibles are made up of porcelain and are used to store and heat substances when required to be heated at high temperatures since glassware are not always suitable for such high heat involving experiments.



#### 17. Wash bottles:

The wash bottles are laboratory consumables used for cleansing and sterilization purposes. These bottles are made up of plastic, which serves as a squeezy container with a long nozzle. They mostly contain distilled water, ethanol or deionized water.



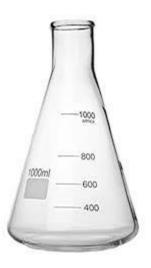
#### 18. Brushes:

Brushes serve as the cleansing apparatus of the test tubes, as they are the only things that can get fit into the narrow-mouthed test tubes and other cylindrical and narrow objects.



### 19. Conical flask:

A conical flask is the most commonly used laboratory equipment in scientific research. It is used to hold and measure chemical liquid samples. Furthermore, these chemicals can be heated, mixed, and boiled in a conical flask depending on the research.



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