# Metric units of measuring length (Standard unit) 



## Measurements

Measurement is defined as the system or act of measuring.



Measurement refers to the comparison of an unknown quantity with a known quantity.

Measurements are the process of quantifying the attributes of an object or an event, such as length, mass, time, temperature, etc.

Measurements allow us to compare different objects or events using a common standard or unit.

## What is length?

- Length is the term used for identifying the size of an object or distance between two points.

- The skill to measure the length is very important in our everyday life.

- Measurement of length can be defined as an act of identifying the length of objects in some standard or non- standard units.


## Units

$\square$ Units are the standard quantities that are used to measure or express other quantities.

## Types :

* Standard units




# * Non Standard units 


$\square$ Standard units are the units of measurement that are agreed upon and used by most people in the world.
$\square$ Standard units make it easier to communicate and compare different quantities, such as length, mass, time, temperature, etc.

## Metric units of measuring length



## Standard unit of measuring length

These units are pre-defined and do not change person to person or object to object.

If two or more people will measure the length of the same object using any standard unit and they will get the same result.


## Standard Units

## Metric system :

- The metric system is a system of measurement that uses decimal multiples and submultiples of the meter as the units of length.
- The metric system is widely used around the world for scientific, commercial, and everyday purposes.

- It is easy to use and convert between different units, as it only involves powers of 10.

| Length |  |  |
| :---: | :---: | :---: |
|  | $\checkmark$ | Millimeter |
| Metric system | $\checkmark$ | Centimeter |
| Metric system | $\checkmark$ | Meter |
|  | $\checkmark$ | Kilometer |

## Definition:

The standard unit of measurement is a value that is fixed and cannot be changed.

Examples :

## Millimeter, Centimeter, Meter, Kilometer

## Millimeter

2 mm

cm

Meter


Centimeter


Kilometer
kilometer (km)


## Millimeter

- Millimeter is the smaller unit of length.

It's symbol is ' mm '.


In a ruler the 10 equal smallest parts are equal to one centimeter. One smallest part is equal to 1 mm .

Example :
Thickness of a sheet of paper or Diameter of a wire.

## Centimeter

- Centimeter is used to measure the smaller objects.
- It's symbol is 'cm'


## 1 cm

|III||II||III|IIIIIII||III|
$\begin{array}{llll}0 & 1 & 2\end{array}$


- Centimeter is used to measuring everyday objects, and its about the width of your fingernail.
- Example :


## Size of a toy, Screw \& Length of a piece of

paper.

## Meter

- Meter is the basic unit of length (or distance) in the SI system of units.
- It's symbol is ' $m$ '.



## Meters

- The length of the black board is measured in meters.

Example :
Height of a tower, Measurement of a cloth.

## Kilometer

- Kilometer is the bigger unit of length.
- It's symbol is 'km'
- Distance between two places are measured by

Kilometer (used to measure long distance).


| Metric units | Symbol | Examples |
| :---: | :---: | :---: |
| millimeter | mm | 0006 <br> BeadsThickness of <br> a book <br> 0000 |
| centimeter | cm |  |
| meter | m |  |
| kilometer | km | 4110 <br> $\%$ <br> Length between two places |

