

Chapter-5  
Class-IX

Biology  
The fundamental unit of life

Invention of microscope

→ In 1665 Robert Hooke discovered under simple microscope. He discovered dead cells.

Cell size

Some cells are visible to the naked eye but most of are microscopic in size.

Shapes of cells:

The shape of the cell determined by the cell environment and cell activities.

→ In human body there is about 200 types of cell.

- a) Smooth muscle cells (spindle shaped)
- b) Blood cells (Round and biconcave)
- c) Sperm cells (Tadpole shape)
- d) fat cells
- e) WBCs
- f) Nerve cells (branched)
- g) Bone cells

## Types of cell :-

On the basis of number of cells  
It is (i) unicellular organisms,  
(ii) multicellular organisms

On the basis of nature of nucleus  
It is of two type  
(i) Prokaryotic cells  
(ii) Eukaryotic cells

## Organelles :

The individual structure present inside the cell capable of doing its own specific function known as organelles. ex - ER, Golgi apparatus, lysosomes, etc.

## Plasma membrane :-

The outermost covering of cell that separates the contents of the cell from its external environment.

selectively  
⇒ It also known as semipermeable membrane as it allow some substance to move in and out of the cell.

⇒ Through the membrane the solvent matters and gaseous matter both exchange occurs.