

# THE FUNDAMENTAL UNIT OF LIFE : CELL

**Class -IX**

**Subject – Science**

## **Module 1/3**


**Cell** – The basic structural and functional unit of life is called cell.

A cell is the smallest unit that is capable of performing life functions.

All living organisms are composed of cells. Cell is a Latin word for 'a little room'

*Cell make up tissues, Similar tissues make up organs, different organs group together to make up organ system and organ systems form an organism.*

Cells were first discovered by **Robert Hooke** in 1665 while observing slices of cork under primitive microscope

Scientist	Discovery	Year	
Robert Hooke	Dead cell	1665	
Leeuwenhoek	Living cell	1674	
Robert Brown	Nucleus	1831	
Purkinje	Protoplasm	1839	

## **Cell Theory**

All living things are made up of cells. Cells are the smallest working units of all living things. **Schleiden and Schwann (1838-39)**

All cells come from preexisting cells through cell division. **Virchow (1855)**

## Cell Structure :

All cells vary in their shape, size and activities and have the functional regions.

*The Shape and Size of Cells are related to the specific function they perform*

Cells of human body have different shape, size based on their functions.

*For example : Blood cells are round or oval in shape contribute to the delivery of different types of material to different parts of body*

**Multicellular organisms** are the organisms which are composed of more than one cell.

*Ex – Fungi , Plants, Animals ,Human beings.*

**Unicellular organisms** are composed of only one cell

*Ex – Amoeba, Paramecium and bacteria.*

Division of labour is a term which means dividing the work among the cell organelle (within a cell) or among different cells or types of cells (in a organism or individual)

