

CAREER POINT WORLD SCHOOL
Worksheet

Class-IX

Subject – Science

Chapter - 5 The Fundamental Unit of Life

The body of all organisms is made up of very small units called cell .Cell is a fundamental, structural and functional unit of life.

A cell is capable of independent existence and can carry out all the functions which are necessary for a living being. Unicellular organisms are capable of independent existence which shows a cell's capability to exist independently like in amoeba. Due to this, a cell is called the fundamental, structural and functional unit of living organisms and basic unit of life.

Discovery of Cell and Cell Theory

Cell was first discovered by Robert Hooke in 1665. He observed that just like honeycomb, organisms are also composed of small compartments. He named these compartments as Cells.

Cell theory state that:

- All living organisms are composed of cells.
- Cell is the fundamental unit of life.
- All new cells come from pre-existing cells.

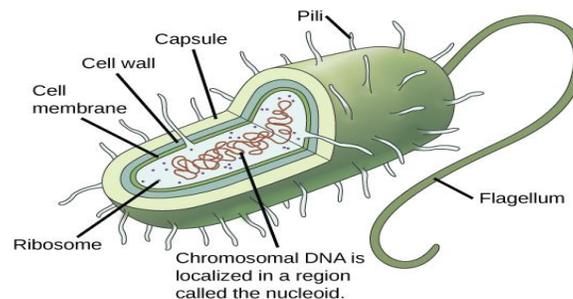
Shape and Size of Cells :-

Cells vary in shape and size. They may be oval, spherical, rectangular, spindle shaped, or totally irregular like the nerve cell. The Size of cell also varies in different animals and plants. Most of the cells are microscopic in size like red blood cells (RBC) while some cells are fairly large like nerve cells. Average size of cells varies from 0.5 to 20.

Types of Cells:- The cells can be categorized in two types:

1. Prokaryotic Cell
2. Eukaryotic Cell

Prokaryotic cell :- In some organisms, DNA and RNA (genetic substances) are bound by a membrane; this is termed as true nucleus. Prokaryotic cells are cells in which true nucleus is absent. They are primitive and incomplete cells. Prokaryotes are always unicellular organisms. Bacteria, blue green algae are examples of prokaryotes



- Q1. What is the definition of cell ?
- Q2. State the average size of cell ?
- Q3. Who was discovered cell ?
- Q4. State the cell theory.
- Q5. Write short note on prokaryotic cell.