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STUDY NOTES

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CLASS- VIII (All Section)

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Science

CHAPTER: 6 Structure and functions of cells

Today's Topic: Different parts of cells.

Different parts of a cell:

Though cells vary in shape and size, yet they have a number of things in common.

Cell Membrane:

The three basic components of a cell are cell membrane, cytoplasm and nucleus. The outermost covering of the cell is called cell membrane. Cell membrane is also called as plasma membrane. The cytoplasm and nucleus are enclosed within the cell membrane. The cells are separated by one another and also the cell the surrounding medium by the membrane. Its functions are to protect the cell and give it shape. It is porous and allows water, minerals and substances to pass through it.

In plant cells, the boundary of the cell membrane is covered by another thick covering called the cell wall. The cell wall supports and protects the plant cell because plants cells do not have skeleton for support.

Plant cells need protection against variations in temperature, high wind atmospheric moisture etc. For this reason, plant cells need a cell wall, In Research Time you might have observed dense round body in the centre of the cell. This is called **nucleus**. Between the cell membrane and the nucleus is a jelly-like substance called **cytoplasm**.

However, you cannot see the cell wall because cell wall is absent in animal cells.

Cytoplasm:

The jelly-like substance present between the cell membrane and the nucleus is the cytoplasm. It consists of various components or **organelles**. These include mitochondria, Golgi bodies, ribosomes, etc.

HOMEWORK (Based on Previous Study Notes)

Now answer the following questions:-

- 1.** Why do plants cells need cell wall?
- 2.** Why do cells of animals and human beings do not need a cell wall?
- 3.** Define Cell membrane.
- 4.** Define Cytoplasm.