

Describe cell structure?  
Write down three Differences  
between animal cells and  
plant cell?

### Cell structure.

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Robert Hooke in 1665!

The word cell is derived  
from the Latin word *cellula*  
which means 'a little room'.

In 1831 Robert Brown reported  
the presence of nucleus in the  
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In 1839 two German scientists  
Schwann and Schleiden gave  
the cell theory. Its ~~main~~  
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The new cells are arisen from  
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and functional unit of an organism life.

## Structure.

if we see the structure of cell it consist of

- 1 Cell wall
- 2 Cell membrane
- 3 Cytoplasm
- 4 Nucleus
- 5 Vacuole
- 6 Mitochondria
- 7 Endoplasmic reticulum
- 8 Ribosomes
- 9 golgi Apparatus
- 10 Lysosome.
- 11 Plastid
- 12 Centrioles

Cell wall :- cell wall is the outer layer of plant cell and absent in animal cell. It protect the cell from the environment.

**Cell membrane** - cell membrane is the outermost layer in ~~plant~~ animal cell but second layer in plant cell. It is also called semipermeable membrane (allow only selective substance to pass through it)

→ It act as a barrier between animal cell and their environment.

**Cytoplasm** - The fluid filled region contain all the organelles of cell, enclosed in the cell membrane and cell wall called cytoplasm.

It is the region where all the cellular activities take place.

It maintain the shape of the cell.

**Vacuole** - There are ~~more~~ than one vacuole present in animal cell but in plant cell only one large vacuole is present which move the nucleus to the periphery.



DAY: \_\_\_\_\_

DATE: \_\_\_\_\_

It act as a storage house for cell. It gives support to the cell.

**Nucleus:** nucleus is used has DNA (genetic material) for the transmission of character from one generation to another. It is

**Mitochondria:** It is also called the power house for cell. The ATP synthesis occurs in the Mitochondria.

**Endoplasmic reticulum:** It is a network of interconnected tubules around nucleus surrounded in the cytoplasm.

It has two types &

- 1 Smooth endoplasmic Reticulum (SER)
- 2 Rough endoplasmic Reticulum (RER)

SER is involve in the detoxification of drug, metabolism of Lipid etc

RER has Ribosomes attached to it.

It involves in the synthesis of Protein.



**Ribosomes:** It involves in the protein synthesis. These are spherical bodies present in Ribosome.

**Golgi apparatus:** They ~~are~~ consist of membrane bounded sacs called cisternae and vesicles formed from the bud which are formed from endoplasmic Reticulum.

- It modify protein by packing it.
- It also modify <sup>lipid</sup> carbohydrates <sup>by adding</sup> ~~by adding~~ into it.

**Lysosome:** Lysosome is involved in the breaking of foreign particles ~~added~~ entered into the cell.

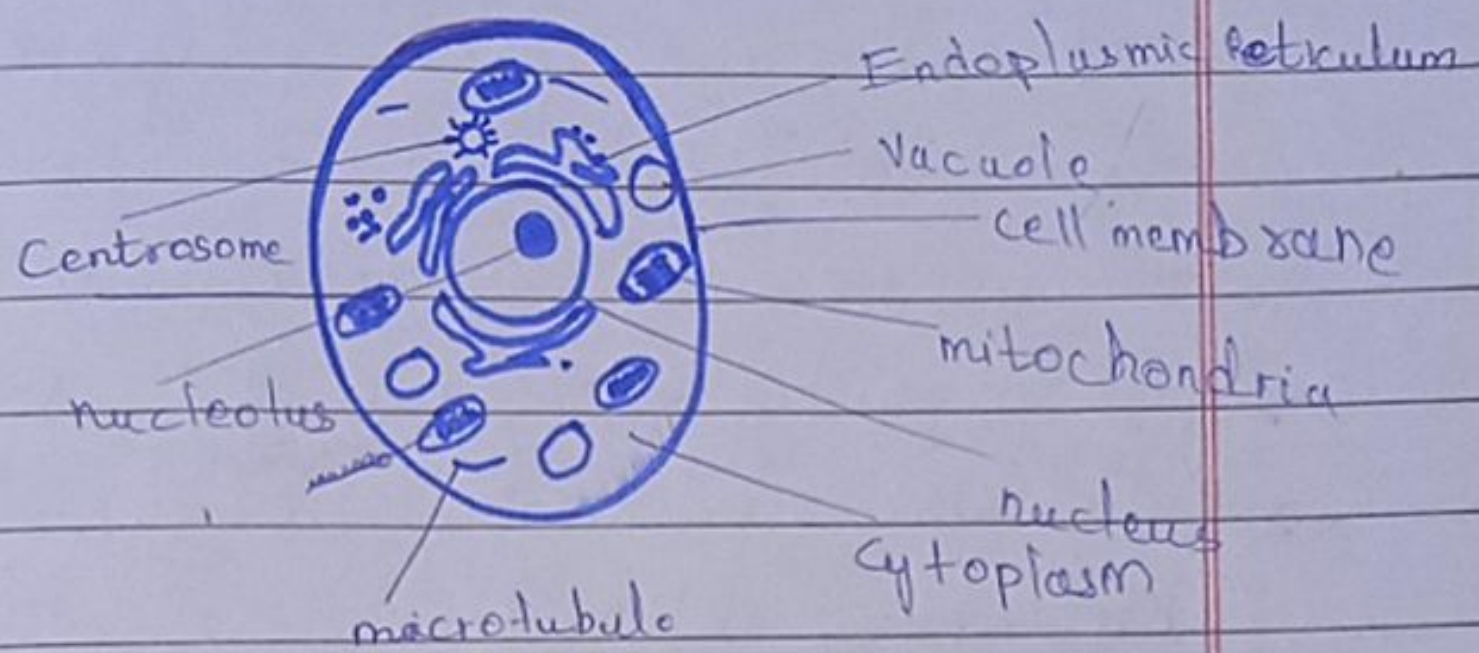
Plant Cell	Animal Cell
Plant cell has cell wall surround the cell membrane	Cell wall is absent
Large single vacuole is present	More than one vacuole is present



Centrioles are absent in plant cell

present in animal cell  
Cell revolves in Cell division

## Animal cell



## Plant cell

