The Things which can be categorised into two groups are named as :
(i)living things (ii)non-living things

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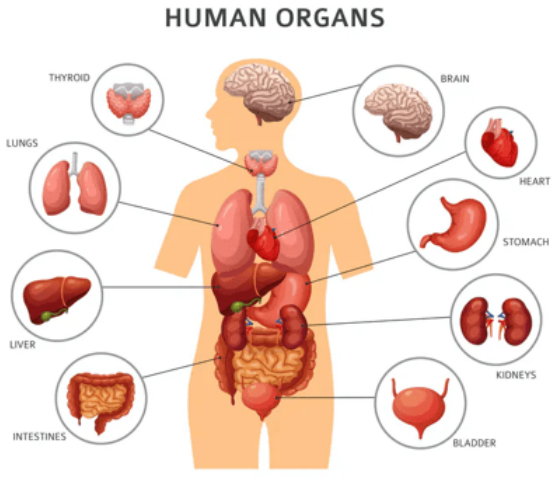
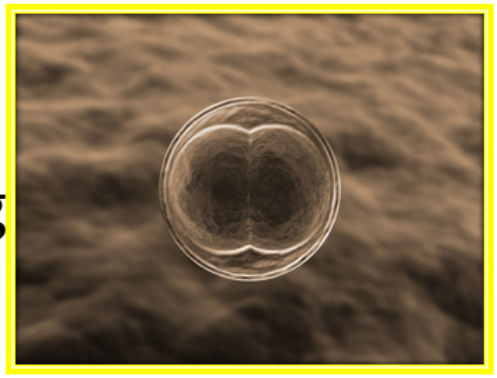
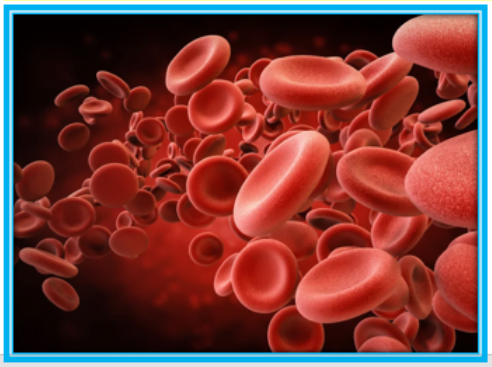
All organisms are made up of smaller parts called organs.

- 

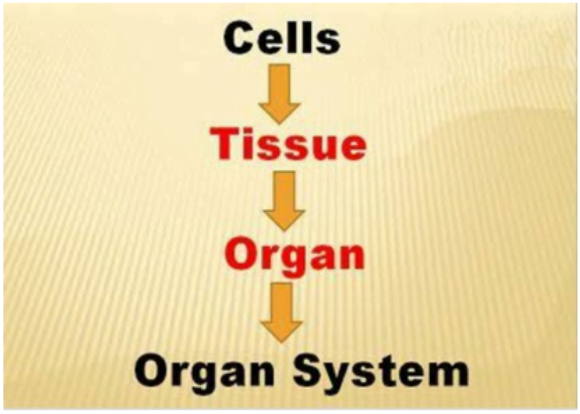
* **Cells** are the basic structural units of living things .

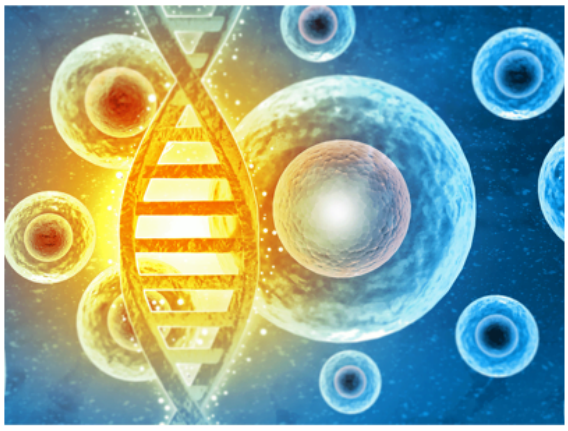


* They are compared with the bricks of buildings.

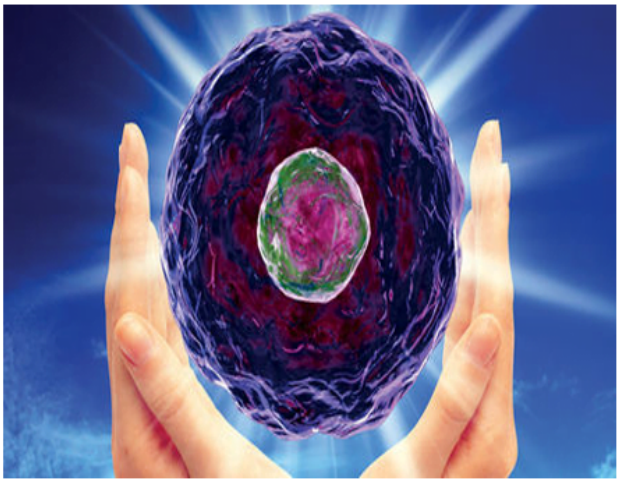


- **Body of every organisms is made by the combination of cells.**

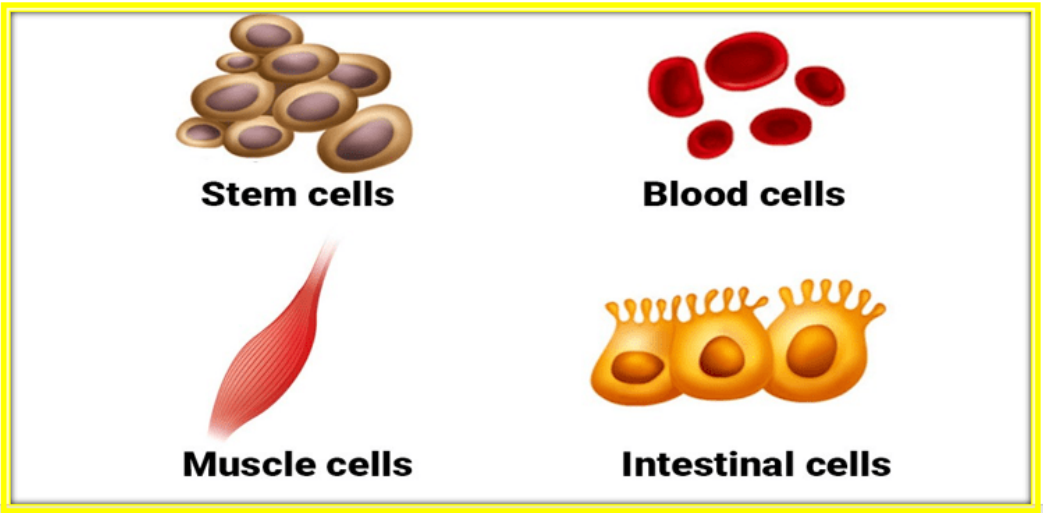




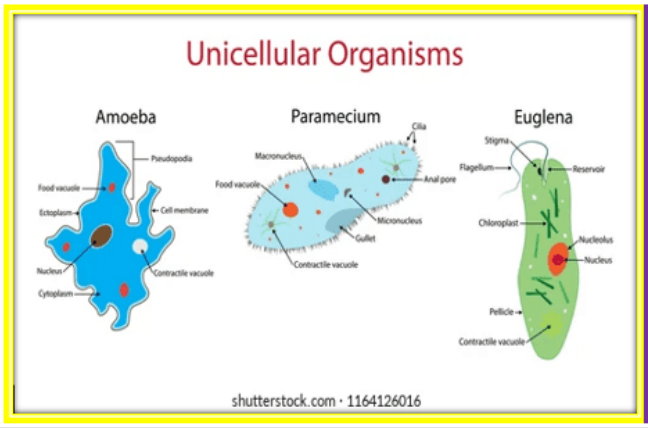
- **Cell was discovered by Robert Hooke in 1665.**

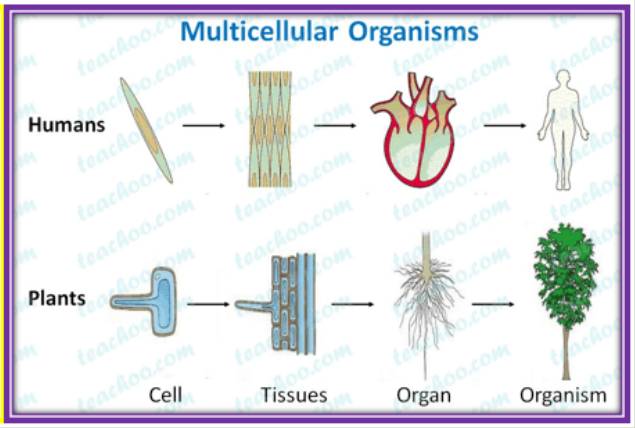


- **Cell exhibit different shapes and sizes.**

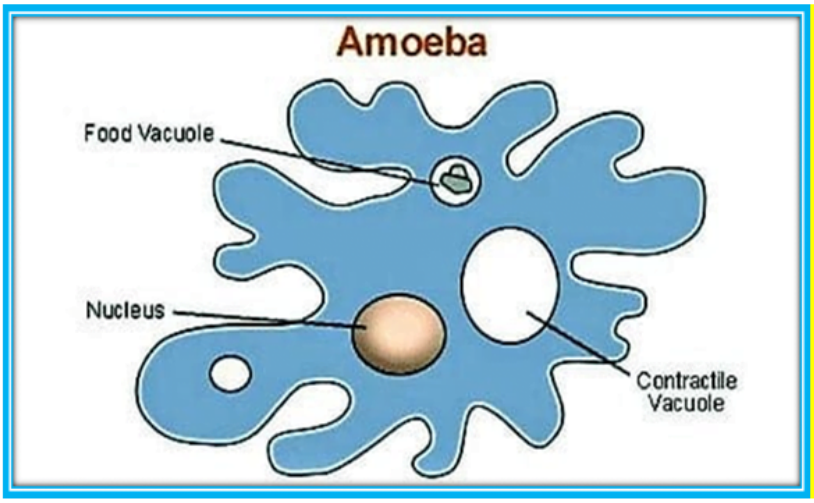


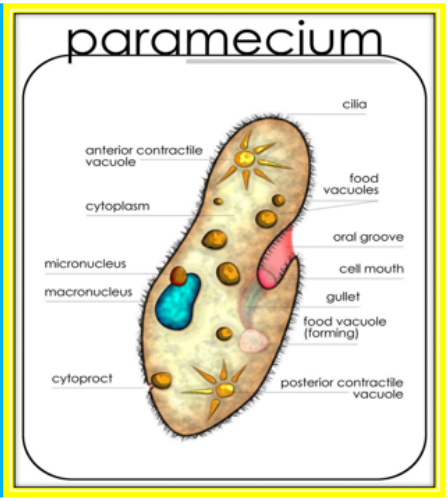
- **Organisms made of only one cell, are called unicellular organisms whereas organisms made of more than one cell, are called multicellular organisms.**



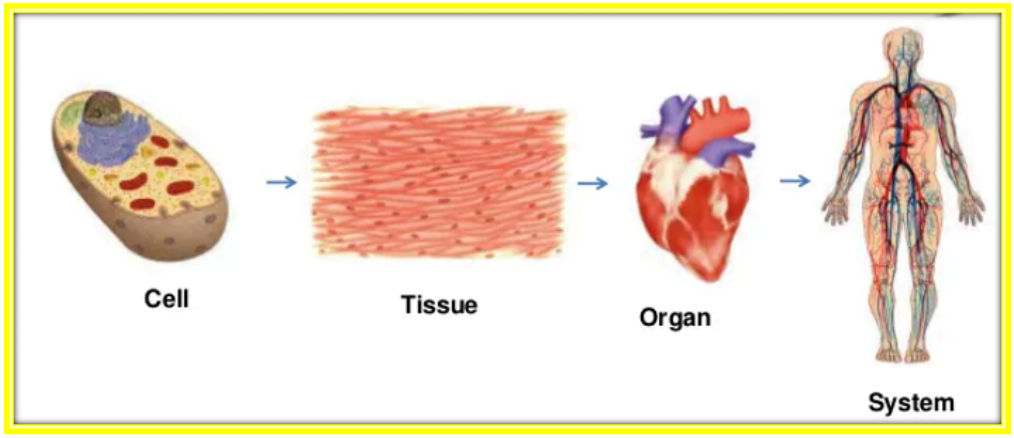


- **Amoeba and Paramecium are single-celled organisms.**





Different cells get together forming different tissues. Tissues, in turn, form organs.



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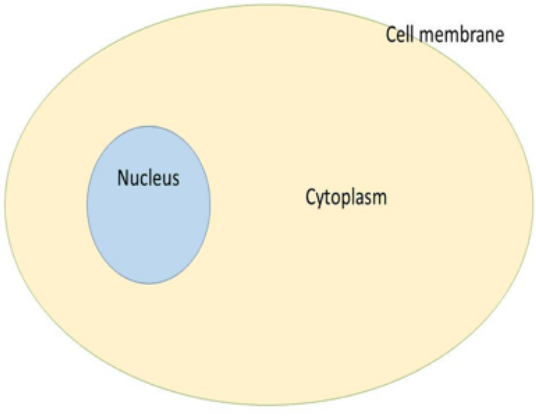
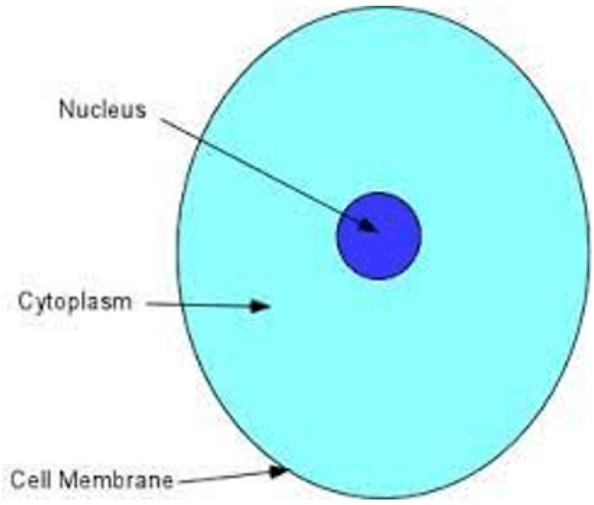
The basic components of a cell are cell membrane, cytoplasm ,nucleus etc.





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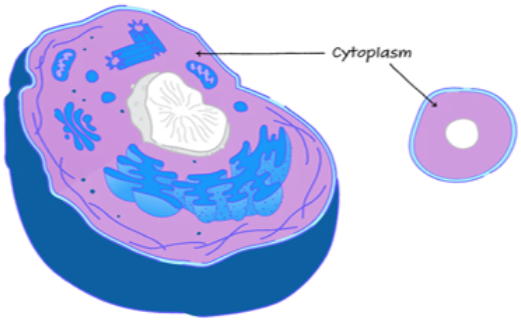
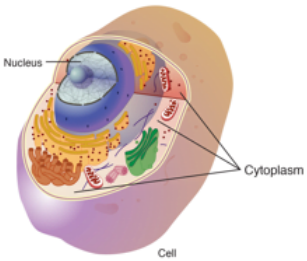
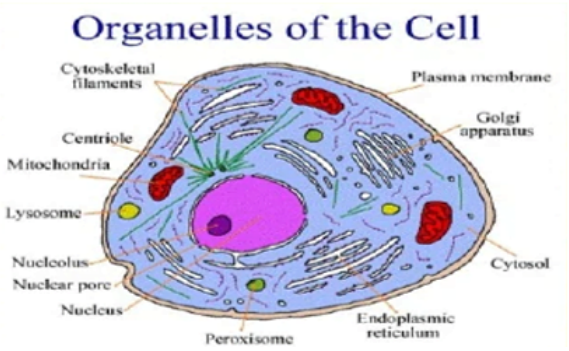
Cytoplasm i.e. Jelly-like substance is found between nucleus and cell membrane.

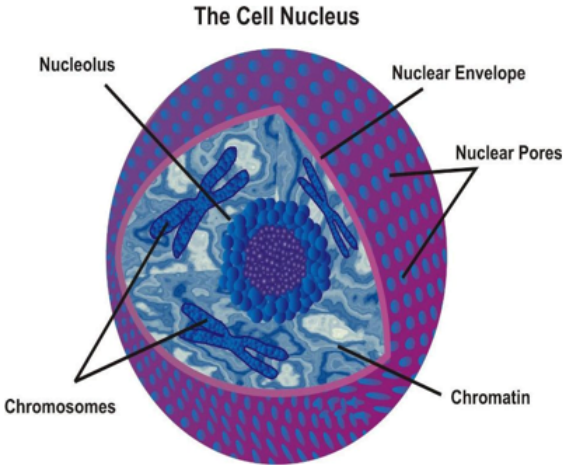




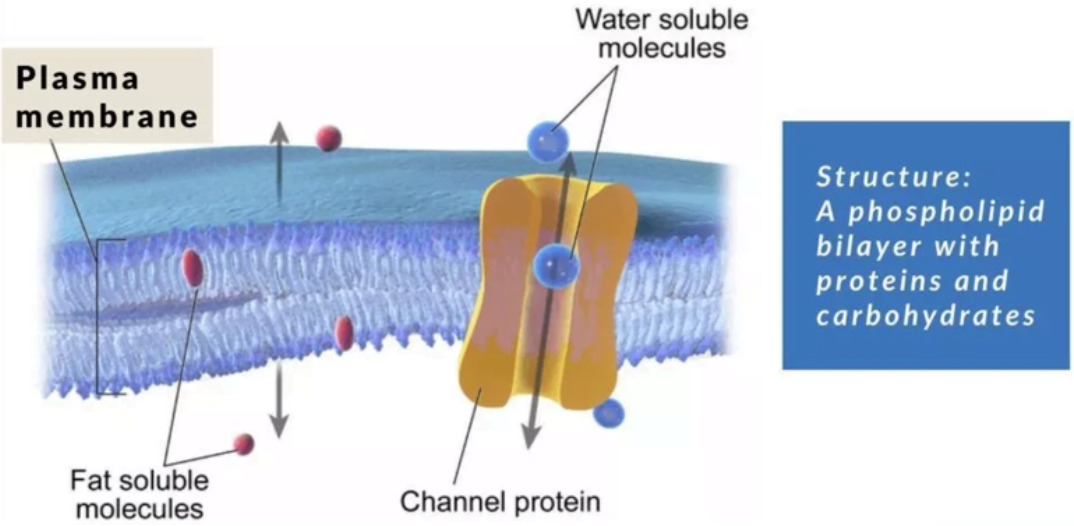


- **Cytoplasm contains organelles**.

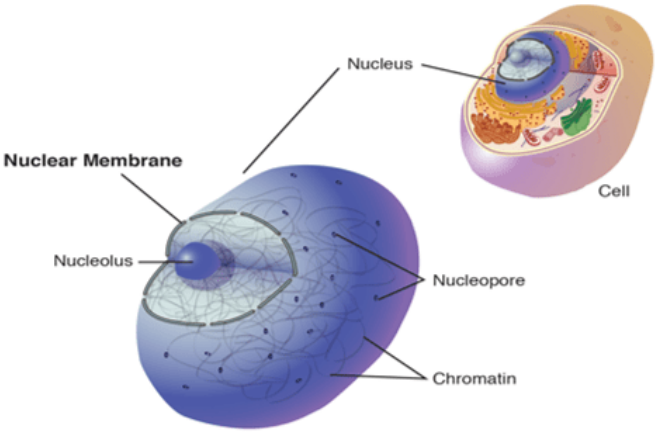
Nucleus contains thread-like structures, called chromosomes. They carry genes and help in inheritance or transfer of characters from the parents to the offspring.



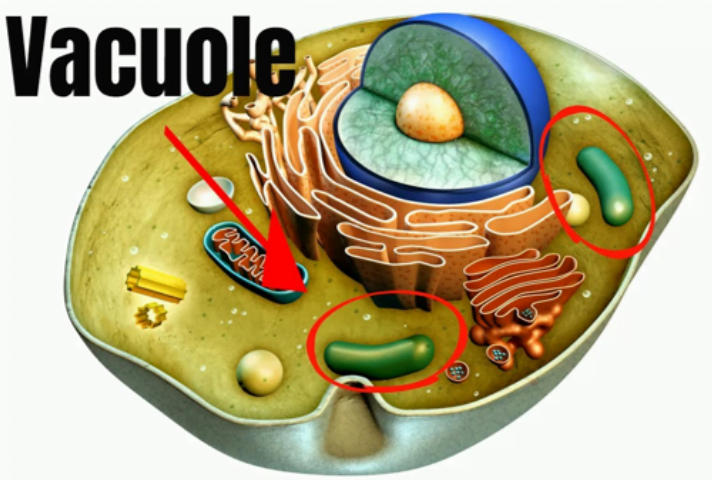
- **The cytoplasm and nucleus are enclosed with the cell membrane ,also called plasma membrane.**



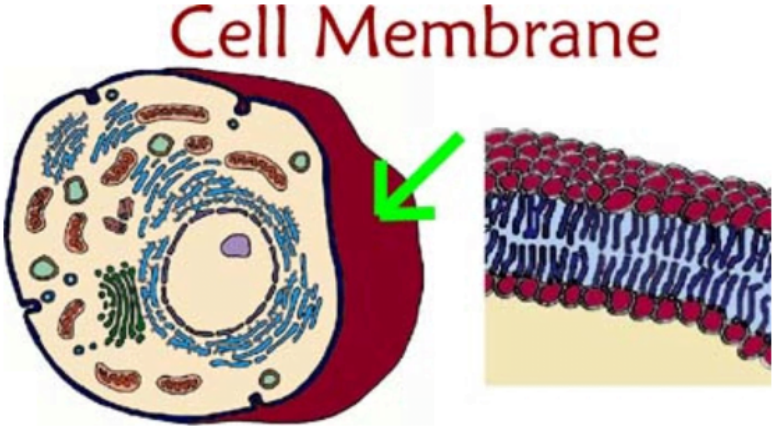
- **Nucleus is separated from cytoplasm by a nuclear membrane**



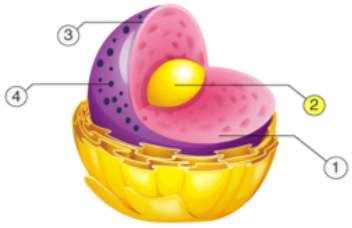
Blank-looking structures in the onion cells are called vacuoles.



- **The outer covering of the cell is called the cell membrane.**

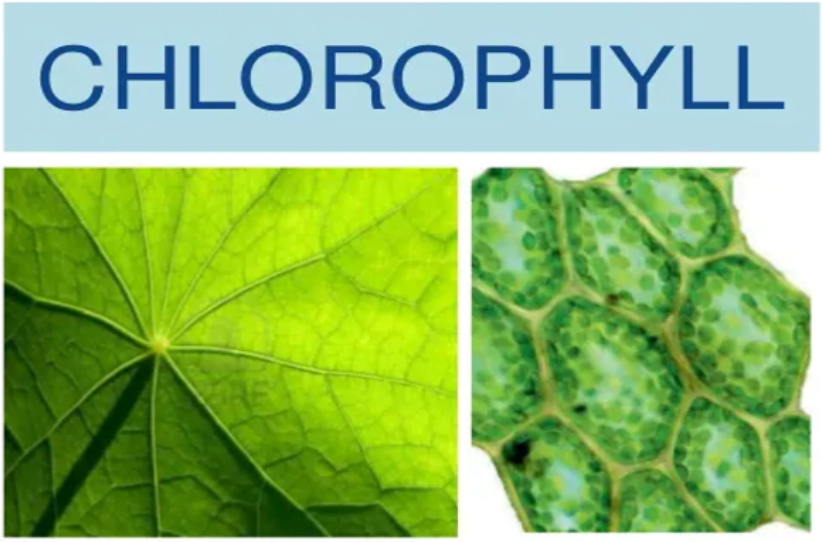


Spherical body in the nucleus is called nucleolus

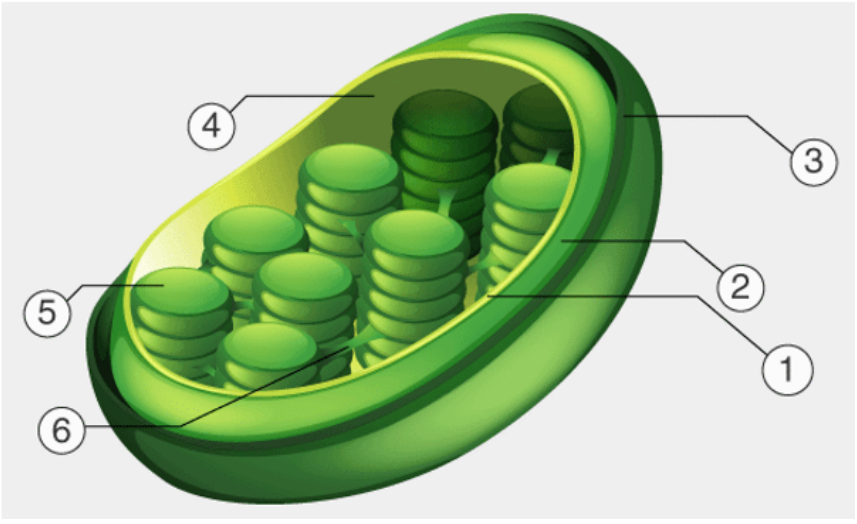


- 1 Nucleoplasm | 2 Nucleolus | 3 Nuclear envelop | 4 Nuclear pore

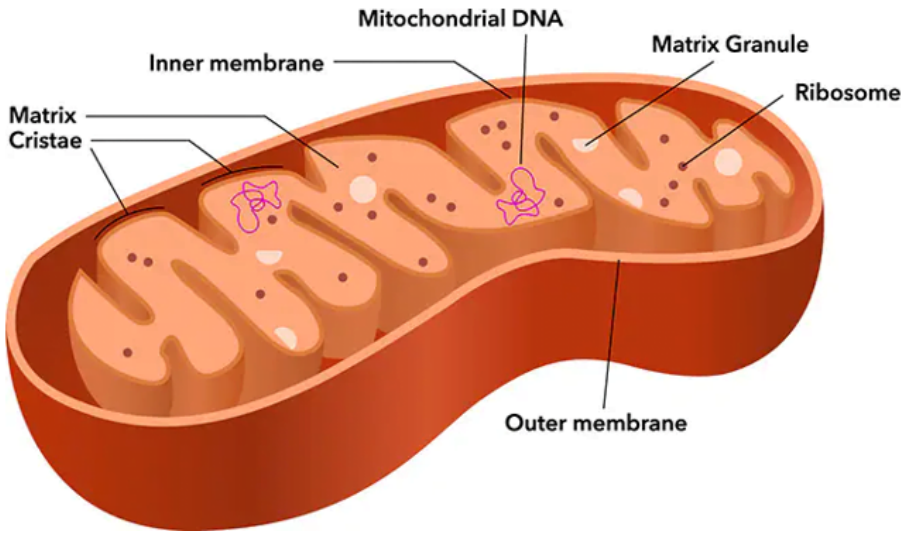
Chlorophyll is a green pigment found in plants. Plants use chlorophyll and light to make food. People sometimes use chlorophyll as medicine. Common sources of chlorophyll used for medicine include alfalfa, algae, and silkworm droppings.



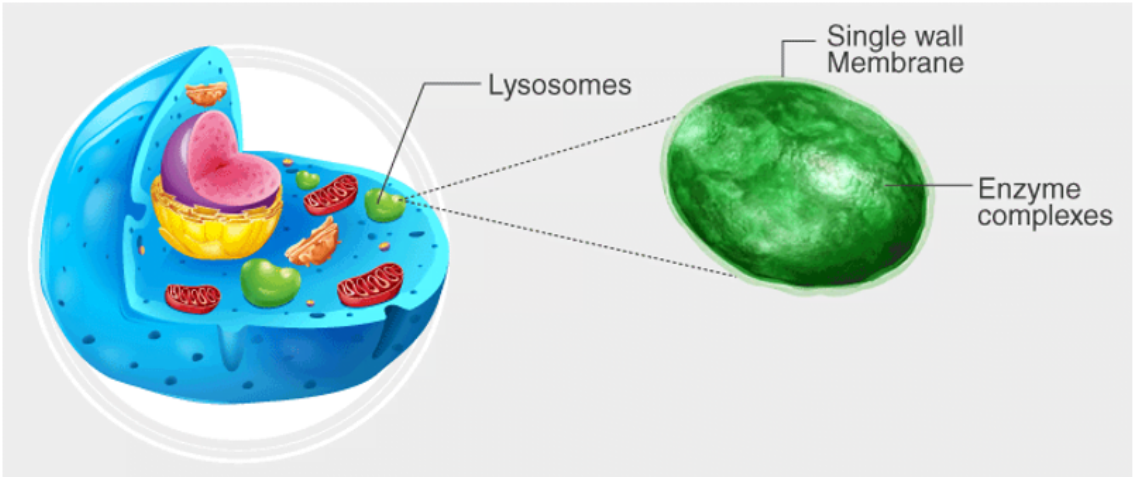
- **Green-coloured plastids are called chloroplasts.**



Mitochondria called "powerhouse of the cell" provides energy for the activities of cell.

- 

Lysosomes are "suicidal bags"
Cell wall and chloroplast are found in plant cell.

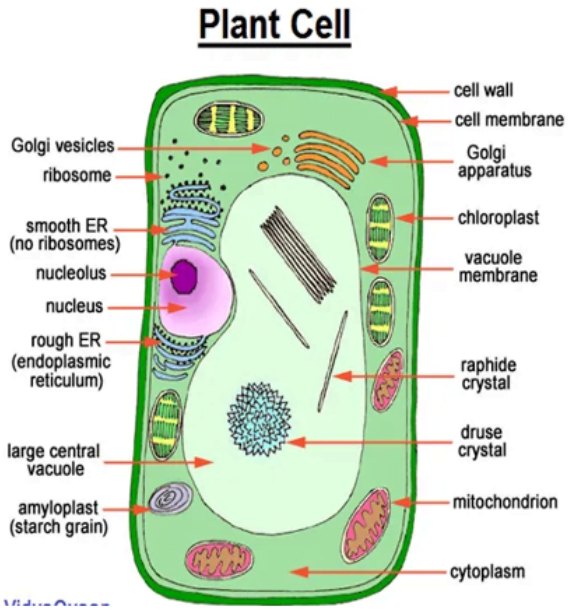
- 

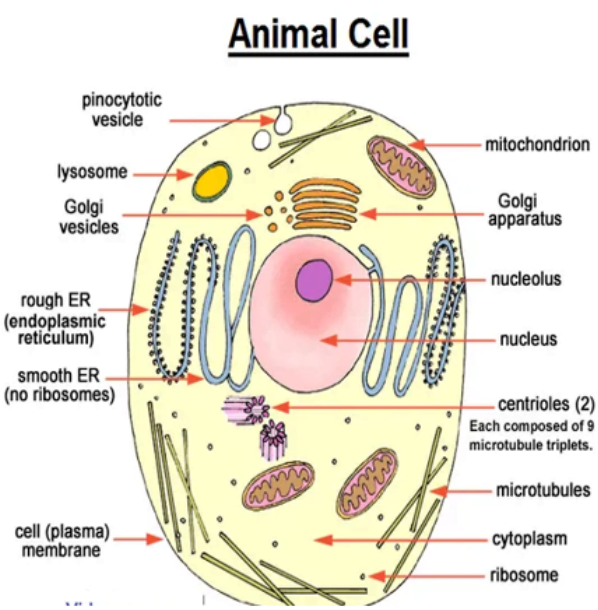
Difference between prokaryotes and eukaryotes

Prokaryotes	Eukaryotes
Size of a cell is generally small.	Size of a cell is generally large.
Nuclear region is not surrounded by a nuclear membrane.	Nuclear material is surrounded by a nuclear membrane.
It contains single chromosomes.	It contains more than one chromosome.
Membrane bound cell organelles are absent.	Membrane bound cell organelles such as mitochondria, plastids, endoplasmic reticulum, Golgi apparatus, lysosomes, peroxisomes, etc., are present
Cell division takes place by fission or budding(no mitosis)	Cell division occurs by mitotic or meiotic cell division.

Difference between Animal cell and Plant cell

Animal cell	Plant cell
Animal cells are generally small in size.	Plant cells are large than animal cells.
Cell wall is absent.	The plasma membrane of plant cells is surrounded by a rigid cell wall of cellulose.
Except the protozoan Euglena, no animal cell possesses plastids.	Plastids are present.
Vacuoles are many, small and temporary.	Permanent, large central sap vacuole.
Centrosome is absent.	Centrosome is present.


Plant Cell
cell wall
cell membrane
Golgi vesicles
Golgi apparatus
ribosome
chloroplast
smooth ER (no ribosomes)
vacuole membrane
nucleolus
nucleus
rough ER (endoplasmic reticulum)
raphide crystal
druse crystal
large central vacuole
amyloplast (starch grain)
mitochondrion
cytoplasm


Animal Cell
pinocytotic vesicle
mitochondrion
lysosome
Golgi vesicles
Golgi apparatus
nucleolus
rough ER (endoplasmic reticulum)
nucleus
smooth ER (no ribosomes)
centrioles (2)
Each composed of 9 microtubule triplets.
microtubules
cell (plasma) membrane
cytoplasm
ribosome