Animal and Plant Cells

Difference Between Plant And Animal Cells

Plant and animal cells are both eukaryotic cells. However, there are distinct differences between the cells found in plants and those found in animals. The differences between the two types of cells can be seen with a light microscope. Below is a list of the major differences:

ANIMAL CELLS	PLANT CELLS
Does not have a cell wall, irregular in shape	Has a cell wall, regular in shape
No chloroplast present	Chloroplast present
Small temporary vacuoles or no vacuole	Large vacuoles located in the center of the cell
Starch grains not present	Starch grains present
The nucleus is usually located centrally	Due to the central location of the vacuole, the nucleus of the cell may be located at the edge of the cell

TYPICAL ANIMAL CELLS

Similarities between plant and animal cells:

-Both have a cell surface membrane that surrounds the cell.

-Both contain endoplasmic reticulum

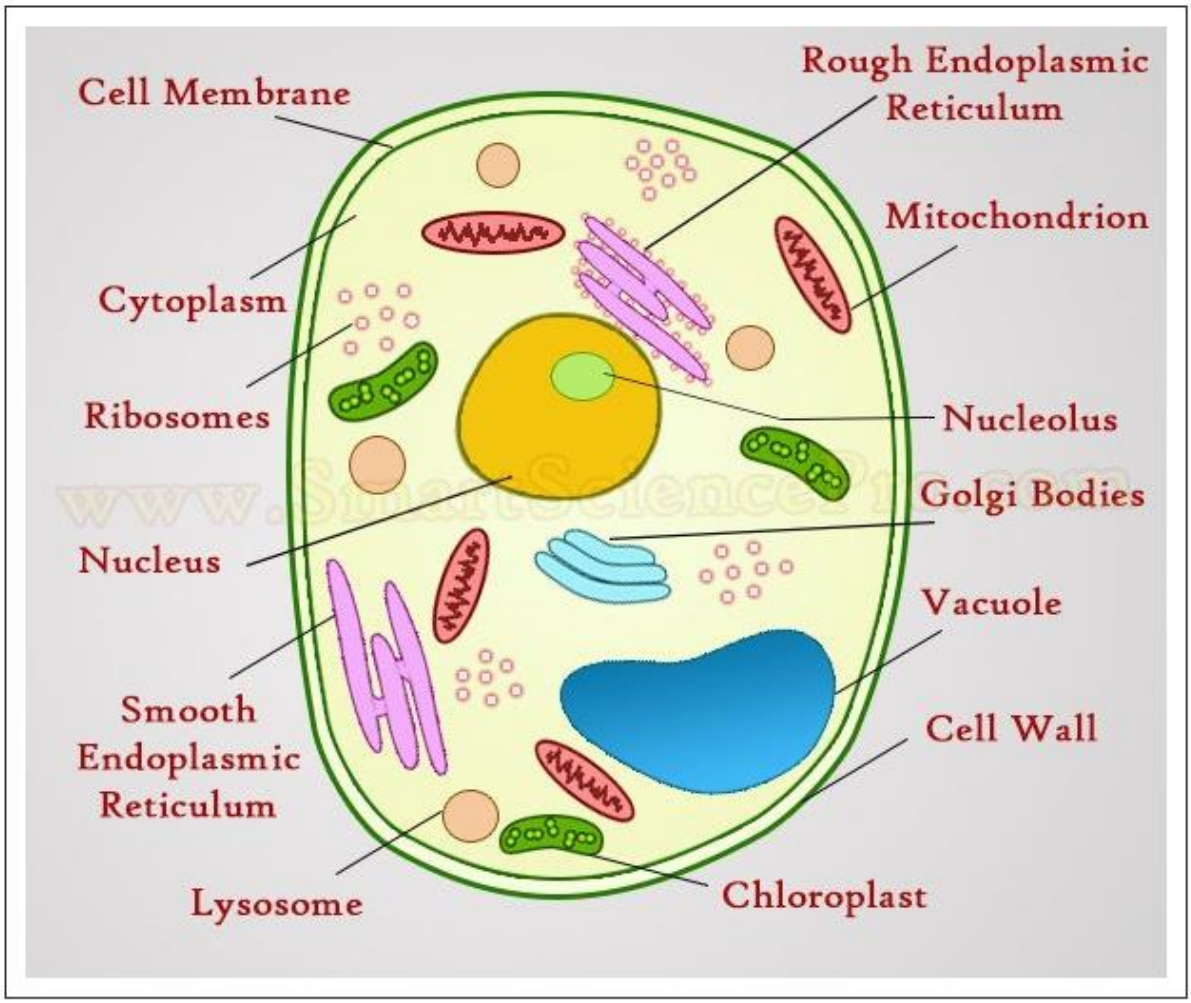
-Both have cytoplasm

-Both contain ribosomes

-Both contain a nucleus

-Both contain mitochondria

Generalised Structure of Animal Cell & Plant Cell Under Microscope



Generalised Structure of Plant Cell

You already know the fact, the cell is the basic structural and functional unit of living beings. This means a cell does various tasks that it was designed to accomplish. Not every cell is the same copy of other. The cell structure must be adapted and changed according to the function it does in the body.

This is known as **Division of Labour** which is presented in any living organism. This is the reason why your palm has a thicker skin unlike the skin of your face. Palm – Made from lots of cells – is designed to grip things and so it is thicker than other parts of the skin.

And it is the same reason for your heart to distribute the blood throughout the body, lungs to transport Oxygen into the body while getting Carbon Dioxide out of the body and so on!

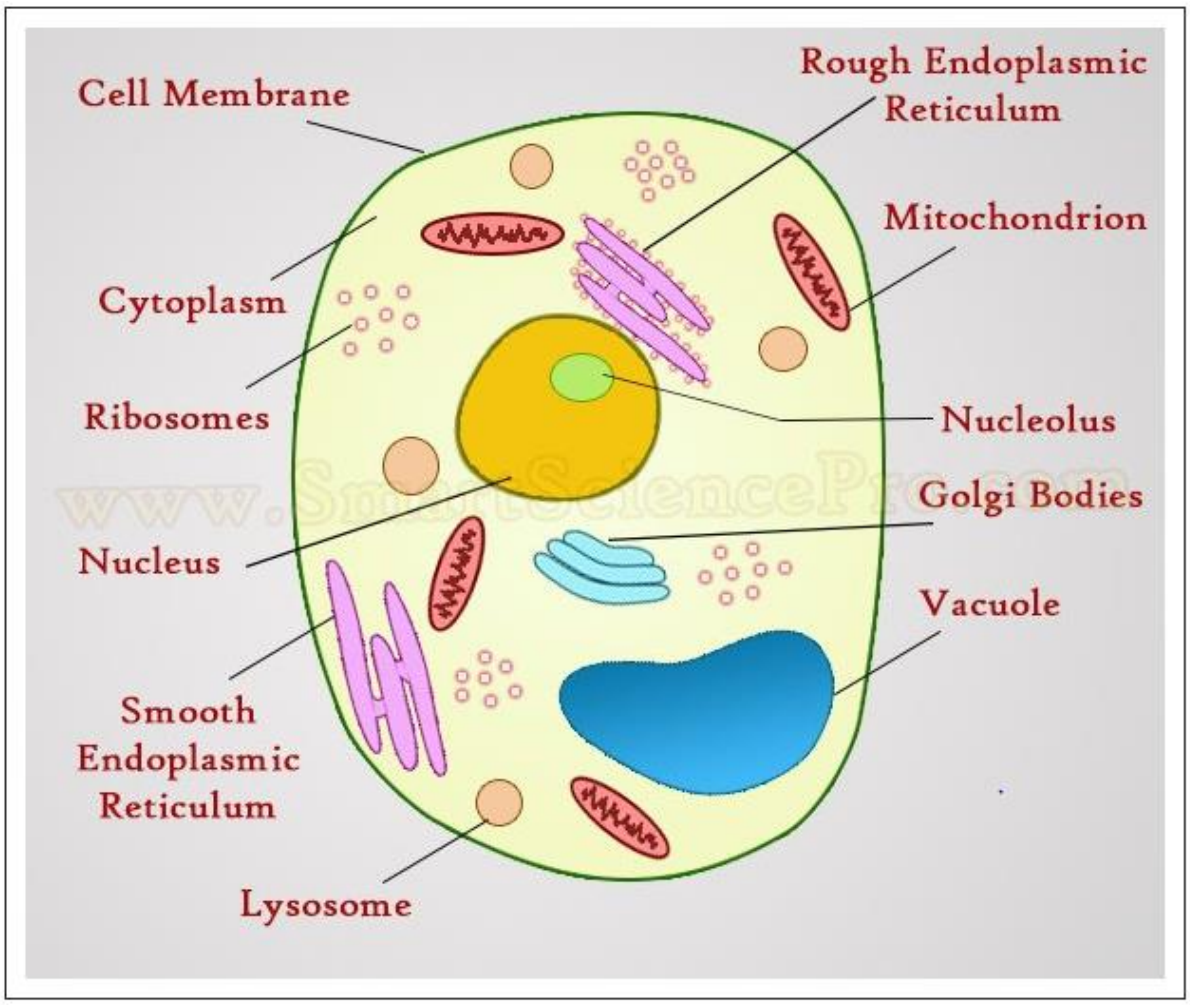
A high efficiency is available for the cells to perform their functions when the structure is adapted according to its function. If you are into video gaming, you know that your ordinary laptop cannot play the best video games, because it is not designed to play games.

But you can play games on your gaming rig because it has the goodies needed to perform the function of 'Running the game!'

I hope you realize my point above. If not, read the last 2 paragraphs again.

Plant leaves are capable of doing something *highly* important to earth. As you guessed, it is **Photosynthesis**. The most required part for the photosynthesis is Chlorophyll which is contained in the cells of plant leaves. In other words, **Chlorophyll** is appearing only on plant leaf cells, it does not appear in the cells of roots.

Perhaps, you may realise that there are *many* parts of the cells depending on the function. However, for easy learning of the basic unit of structure of the cell, the scientists introduced the **Generalised Cell structure** which contains all the identified common parts of cells.



Generalised Structure of Animal Cell

Generalised Cell is used for the structure of Animal Cell and Plant Cell to present the common parts, appear in various parts of the bodies of animals and plants.

There are various parts of the cell are known as **Organelles** – Subunits of the cell that performs its own sub functions to help the cell to do its job well.