

# Plant and Animal Cells

Created by: Vic Kuang

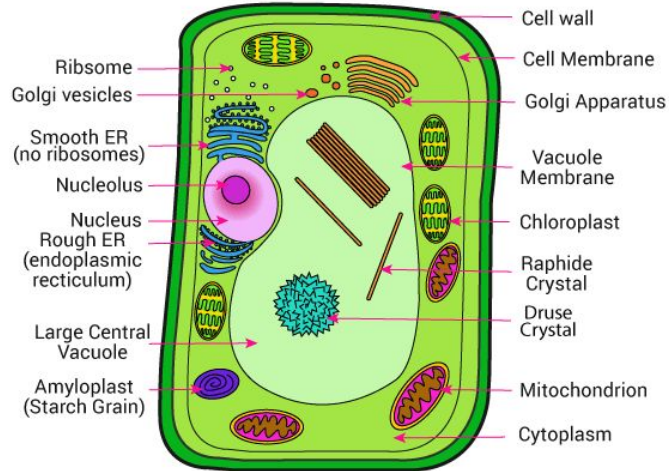


# What is a Plant Cell?

*Plant cells are eukaryotic cells with a true nucleus along with specialized structures called organelles that carry out different structures.*

## Plant Cell

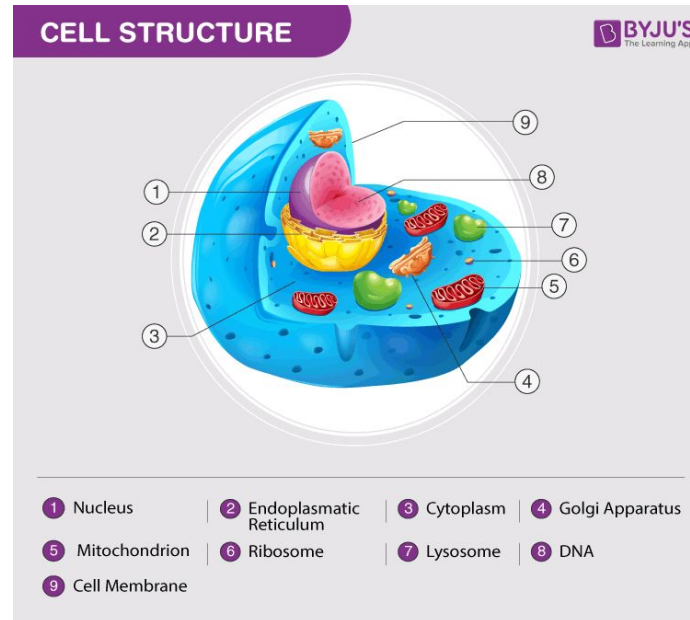
BYJU'S  
The Learning App



# What is an Animal Cell?

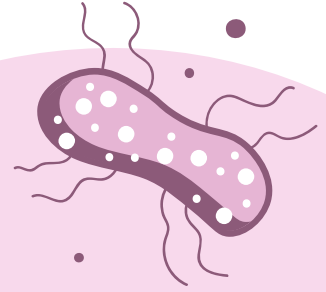
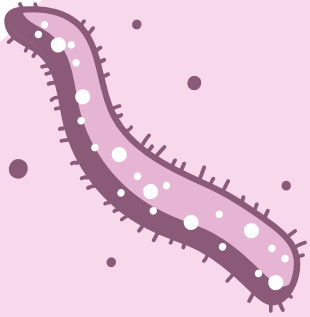


*Animal cells are eukaryotic cells that lack a cell wall and have a true, membrane-bound nucleus along with other cellular organelles.*



# Plant Cell Organelles

*\*There are more organelles but we are going to stick with the most common ones.\**



# Cell Wall

The purpose of a cell wall is to protect and provide structural support to the cell. It is also involved in protecting the cell against mechanical stress and filters the molecules that come in and out.

# Cell Membrane

The purpose of a cell membrane is to regulate the entry and exit of specific substances within the cell.

# Nucleus

The purpose of the nucleus is to store **DNA** and hereditary information required for cell division, metabolism, and growth.

# Chloroplast

The purpose of the chloroplast is to **absorb light energy** from the sun and use it to transform carbon dioxide and water into glucose.

# Central Vacuole

The purpose of the central vacuole is to store water and maintain turgor pressure.

# Golgi Apparatus

The purpose of the golgi apparatus is distribute synthesized macromolecules to various parts of the cell.

# Ribosomes

The purpose of the ribosomes are to make proteins for the cell.

# Mitochondria

The purpose of the mitochondria is to provide energy by breaking down carbohydrate and sugar molecules.





# Lysosome

The purpose of the lysosome is to hold digestive enzymes in an enclosed membrane.

# Cytoplasm

The purpose of the cytoplasm is to hold internal components of cells in place and protect them from damage.

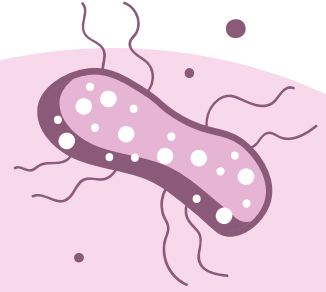
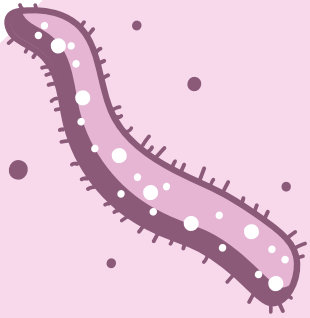


Here is a link to flashcards about  
the plant cell organelles:

[https://quizlet.com/\\_8k2cn8?x=1jqf  
&i=xtpqz](https://quizlet.com/_8k2cn8?x=1jqf&i=xtpqz)

# Animal Cell Organelles

*\*There are more organelles but we are going  
to stick with the most common ones.\**



# Cell Membrane

The purpose of the cell membrane is to protect the cell from its surroundings. It also controls the entry and exit of nutrients and other microscopic entities into the cell.

# Nucleus

The purpose of the nucleus is to contain the DNA and other genetic materials.

# Centrosome

The purpose of the centrosome is to produce the microtubules and organize them.

# Lysosome

The purpose of the lysosome is to hold digestive enzymes which help in digestion, excretion, and in the cell renewal process.

# Cytoplasm

The purpose of the cytoplasm is to hold internal components of cells in place and protect them from damage.

# Golgi Apparatus

The purpose of the golgi apparatus is manufacture, store, pack, and transport the particles through the cell.

# Mitochondria

The purpose of the mitochondria is to produce the energy necessary for survival and function.

# Ribosomes

The purpose of the ribosome is to make protein.



# Endoplasmic Reticulum

The purpose of the endoplasmic reticulum is calcium storage, protein synthesis, and lipid metabolism.

# Vacuole

The purpose of the vacuole is to maintain shape and store water, food, and wastes.



Here is a link to flashcards about  
the animal cell organelles:

[https://quizlet.com/\\_8k3je0?x=19qt  
&i=xtpqz](https://quizlet.com/_8k3je0?x=19qt&i=xtpqz)

Plant cells

Same

Animal cells

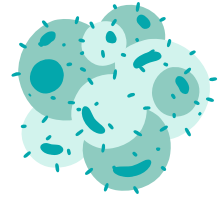
- Cell wall
- Chloroplast
- Central / large vacuole

- Cell membrane
- Mitochondria
- Ribosomes
- Cytoplasm
- Golgi apparatus
- Nucleus
- Lysosome (rarely in plants)
- Endoplasmic reticulum

- Centrosome
- Small vacuole

\*This graph is only based on the organelles based on this presentation, this graph may be different\*

# Thanks!



CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, infographics & images by **Freepik** and illustrations by **Stories**

Please keep this slide for attribution