# Chapter 7 Section3

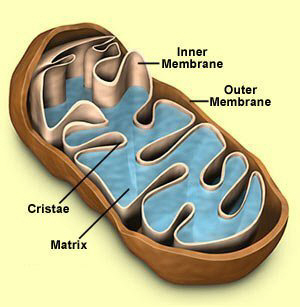
## Student Notes

Mitochondria

* Enlongated fluid- filled sacs
* Vary in size and shape
* Move slowly in the cytoplasm
* Reproduce ( by dividing itself)

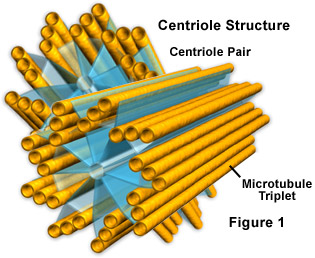
\*\*\*POWER HOUSE OF THE CELL\*\*\*

* **Cytosol** – fluid component of the cytoplasm.

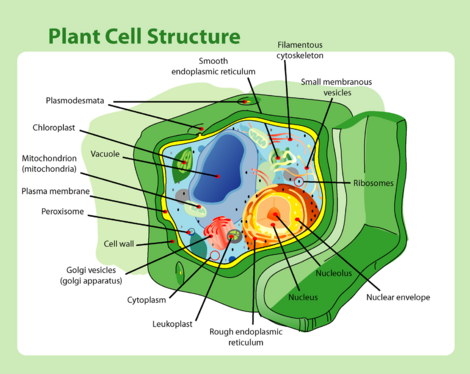


Centrosomes

* Found only in animal cells.
* These paired organelles are typically located together near the nucleus in the **centrosome**, a granular mass that serves as an organizing center for microtubules.



Plant Cell

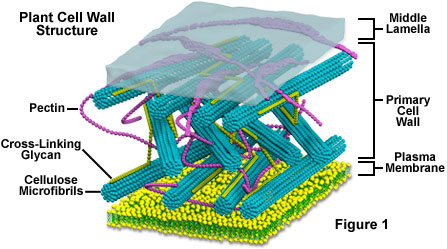


Plant Cells

* Have 3 additional structures that are not found in animal cells.
  + Cell wall
  + Chloroplasts
  + Central Vacuole

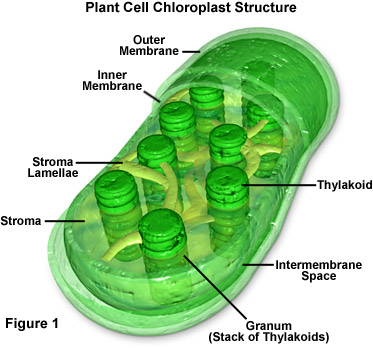
Cell Wall

* Cell membrane = cell wall
* Thick
* Composed of proteins and carbohydrates
  + Including cellulose ( polysaccharide)
* Helps with support
* Maintains the shape of the cell
* Protects the cell from damage
* Connects the cell with adjacent cells



Chloroplasts

* Organelles that use light energy to make carbohydrates from carbon dioxide and water
* Supply energy needed to power the activities within the cells
* Surrounded by 2 membranes
* Contain their own DNA
* Also found in:
  + Sea weed



Central Vacuole

* Stores water
* Contains substances:
  + Ions
  + Nutrients
  + Wastes
* When its full, it makes the cell rigid
  + Enables the plant to stand up straight.