

B2

# Features, Properties, & Functions of Cells

Note Title

07/10/2013

## Cell Theory

There are 3 parts to the Cell Theory:

1. The cell is the basic unit of life
2. All living things are made up of one or more cells
3. All cells come from other living cells

## Cells

An organelle is a structure in a cell.

Organelle

Function

Cell Membrane - Provide a protective barrier around the cell

Cytoplasm - Jello-like substance that holds (supports) all organelles

Nucleus - controls all activities in cell ("brain")

DNA (deoxyribonucleic acid) - carries all hereditary information passed on from one generation to the next.

Mitochondria - energy producer

Ribosome - manufacture proteins

Endoplasmic Reticulum - network of folded channels used to transport materials. Two types: ① smooth: no ribosomes  
② rough: studded with ribosomes

Golgi Body - sorts proteins and packages them into vesicles  
(capitalize)

Vesicle - carry proteins, and nutrients and water. Move into and out of the cell.

Vacuoles - temporary storage container

Lysosome - contain digestive chemicals to break down food, wastes, old cell part → themselves "suicide sacs"

Cell Wall - ★ only in a PLANT cell ★ Tough, rigid structure that is outside the cell membrane.

Chloroplast - ★ only in PLANT cells ★ traps energy from the sun and converts it in chemical (food) energy.

Mitochondria

vs

Chloroplasts.

- found in both plants and animal cells.

- carries out the process  
CELLULAR RESPIRATION  
↑ how cells get energy

- found only in plant cells

- carries out the process  
PHOTOSYNTHESIS  
↑ how plants make food

