

Cell Organelles

O: We will continue to explore the structures inside plant and animal cells.

organelle - structures within a cell that have certain jobs to do for the cell.

membrane - thin tissue that surrounds and contains an organelle.

membrane-bound - an organelle that is surrounded by a membrane.

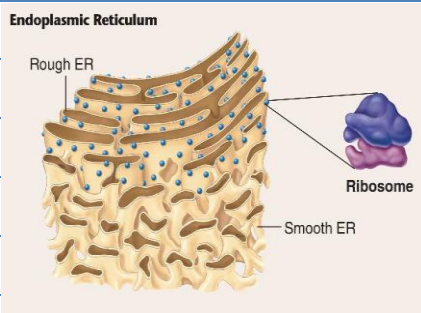
Nucleus



description: membrane-bound structure inside eukaryotic cells that contains DNA.

function: runs all of the functions inside the cell.

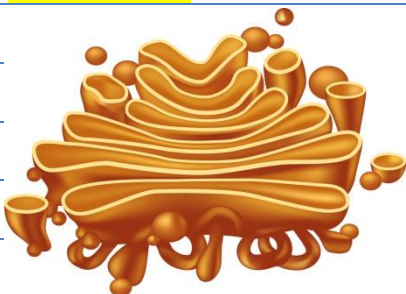
endoplasmic reticulum



description: network of tube-like canals. There is smooth and rough er.

function: smooth er makes hormones and controls calcium release. Rough er is covered in ribosomes and makes proteins.

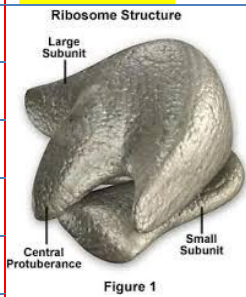
golgi bodies



description: a system of flattened membrane sacs.

function: packages substances for transport inside or out of the cell. Acts like a mail delivery system.

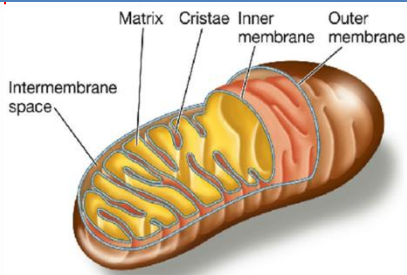
ribosomes



description: small packets of RNA attached to the rough er or free floating in the cytoplasm.

function: ribosomes use RNA as instructions to make protein.

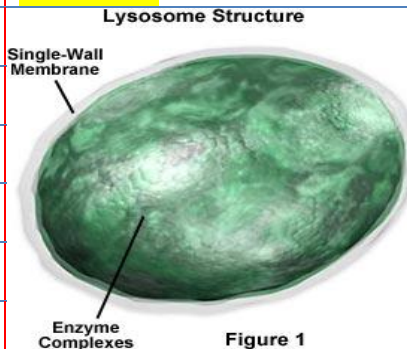
mitochondria



description: bean shaped organelle with an outer and inner membrane. Mitochondria have their own DNA.

function: where cellular respiration takes place. Releases energy from glucose for the cell.

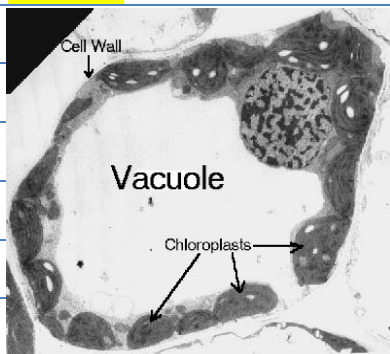
lysosome



description: small spherical organelles free floating in the cytoplasm. Found mostly in animal cells.

function: contains digestive enzymes that dissolve cellular waste. Acts like a garbage disposal system.

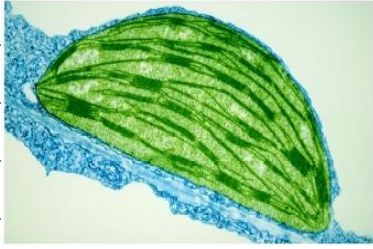
vacuole



description: membrane bound sacs. Usually much larger in plant cells.

function: used to store water, food or waste. In plant cells, they help keep the plant from wilting.

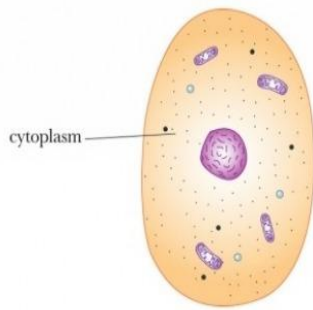
chloroplast



description: large, green organelle found in some plant cells.

function: holds chlorophyll and where photosynthesis takes place.

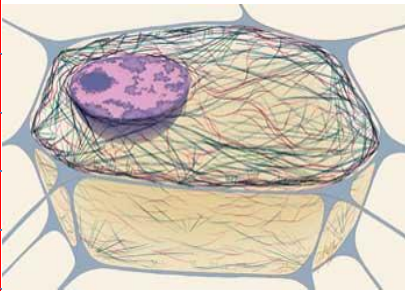
cytoplasm



description: jelly-like substance that fills the empty areas within a cell.

function: helps the cell keep its shape and hold organelles in place.

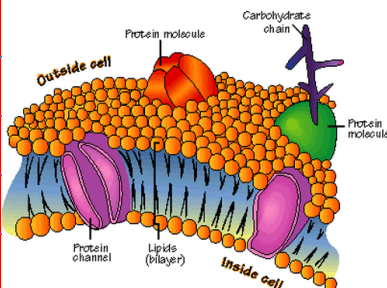
cytoskeleton



description: small fibers suspended in the cytoplasm.

function: helps the cell keep its shape and aids in organelle movement around the cell. Similar to our skeletal system.

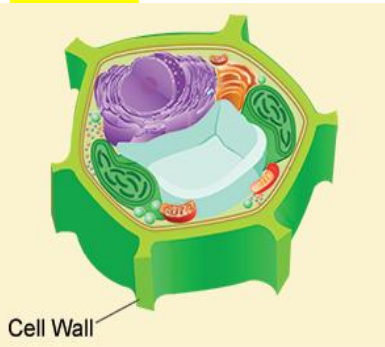
cell membrane



description: thin membrane that surrounds the cell. Made up of a bi-lipid layer.

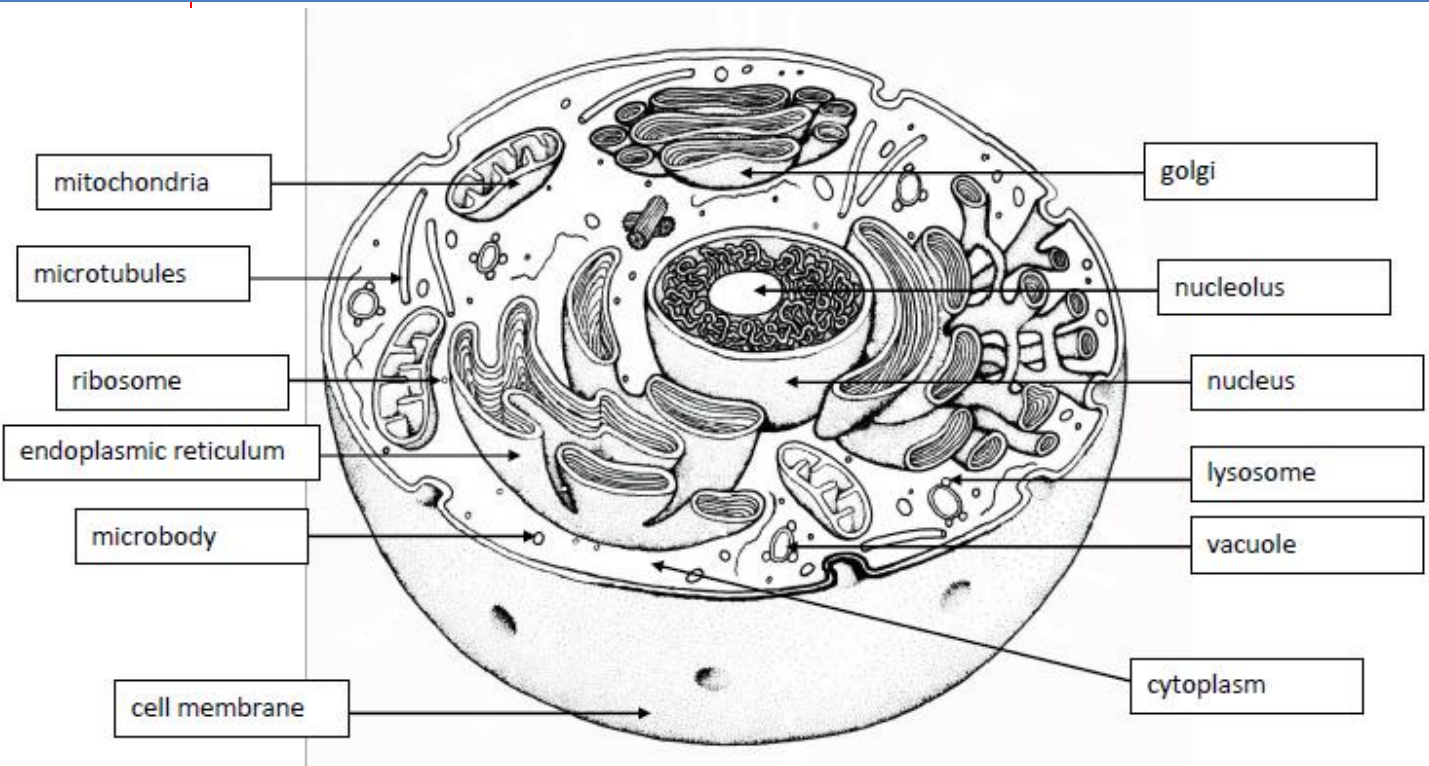
function: acts as a barrier to protect the cell and a “doorway” letting substances in or out of the cell.

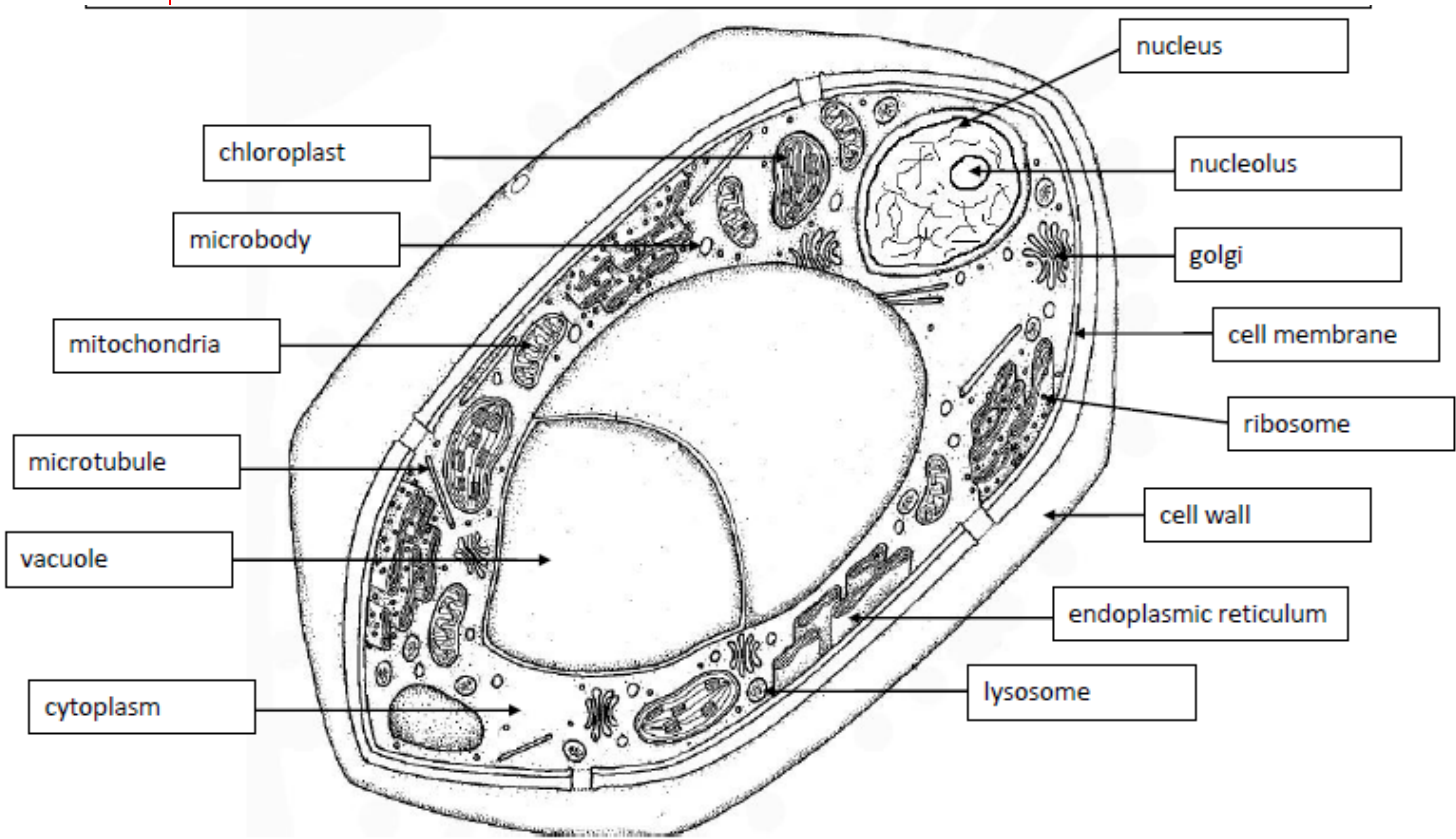
cell wall



description: rigid structure that surrounds the cell membrane. Only found in plant cells.

function: acts as a barrier, protects and supports the cell.





animal vs plant cells

animal	plant
has centrioles and lysosomes	has a cell wall, chloroplast and a large central vacuole
no cell wall, chloroplast or large central vacuole	no centrioles and usually no lysosomes

A: Mitochondria are like our digestive system because they both provide energy.

O: We will continue our study of plant and animal cell organelles.

A: The nucleus is like our brain because both are control centers.

O: We will work on the Cells Alive assignment.

A: The vacuoles are much larger in plant cells than in animal cells.

O: We will create a cell analogy or complete Cells Alive.

A: Cell walls and chloroplasts are found in plant cells but not animal cells.