

Warm Up

- 1.) What word means "little organ?"
- 2.) How is a cell like our body?

Nov 14-8:10 AM

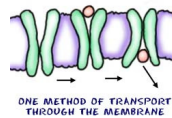
Cell Organelles and Processes

Fill out your Cell Organelle chart as we go.
All parts need to be complete.

Nov 13-7:42 PM

Active Transport

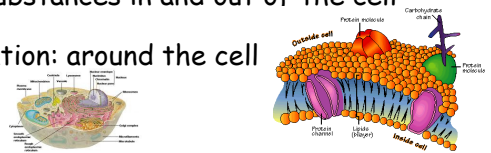
- occurs in both plant and animal cells
- occurs through a cell membrane
- uses energy to "carry" substances into a cell
- used to bring nutrients into a cell



Nov 13-7:46 PM

Cell Membrane (gate keeper)

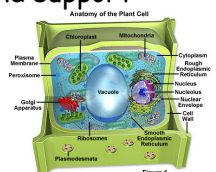
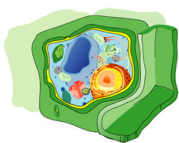
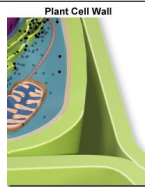
- found in both plant and animal cells
- a double lipid bilayer that has proteins embedded in it
- Functions: protection, support, movement of substances in and out of the cell
- Location: around the cell



Nov 13-7:51 PM

Cell Wall

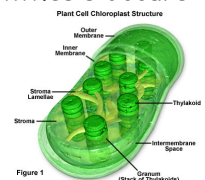
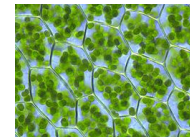
- Only in plant cells
- Location: around the cell
- outer layer, rigid, strong, made of cellulose
- Functions: protection and support



Nov 13-7:57 PM

Chloroplast

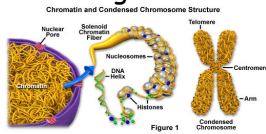
- Only in plant cells
- Contain chlorophyll (a green pigment) which makes plants green
- Function: where photosynthesis occurs within a plant cell
- Location: cytoplasm



Nov 13-8:02 PM

Chromatin

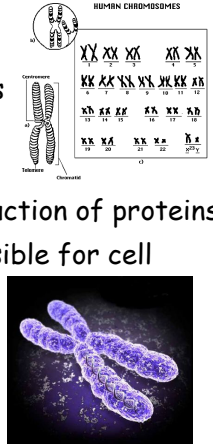
- In both plant and animal cells
- Location: Nucleus
- the combination of DNA and proteins that make up the contents of the nucleus
- Function: contains genetic material



Nov 13-8:08 PM

Chromosome

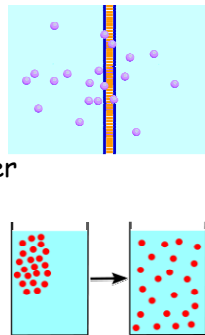
- Both plant and animal cells
- Location: nucleus
- Function: direct the production of proteins in the cell and are responsible for cell growth and reproduction



Nov 13-8:12 PM

Diffusion

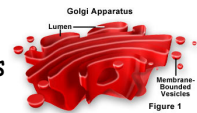
- Process by which substances (other than water) move from a higher concentration of that substance to a lower one
- No energy is needed
- Ex: a perfume bottle being opened in a room



Nov 13-8:16 PM

Golgi Body (mail room)

- In both plant and animal cells
- Location: cytoplasm
- Looks like a flattened collection of sacs and tubes (almost like a pancake stack)
- Function: receive proteins from the ER, package them, and distribute them to other cell parts



Nov 13-8:21 PM

Lysosome (the clean up crew)

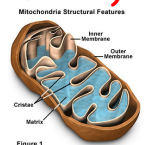
- Usually only found in animal cells
- Location: cytoplasm
- Small round structures; contain enzymes that break down food into usable substances
- Function: digestion of food and old cell parts



Nov 13-8:27 PM

Mitochondria (the power house)

- In both plant and animal cells
- Location: cytoplasm
- The site of cellular respiration -food and oxygen are combined to produce energy which is stored as ATP
- More active cells have more mitochondria
- Function: Production of energy



Nov 13-8:34 PM

Nuclear Envelope

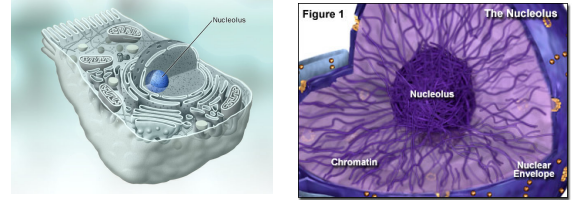
- In both plant and animal cells
- Location: around nucleus
- Selectively permeable; allowing some things into or out of the nucleus while keeping other things out/in.
- Function: protection of nucleus



Nov 13-8:41 PM

Nucleolus

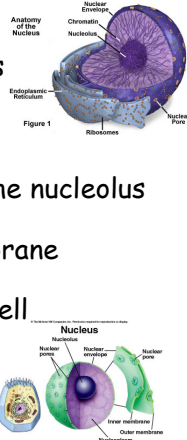
- In both plant and animal cells
- Location: center of nucleus
- Function: where ribosomes are produced



Nov 13-8:45 PM

Nucleus (brain of cell)

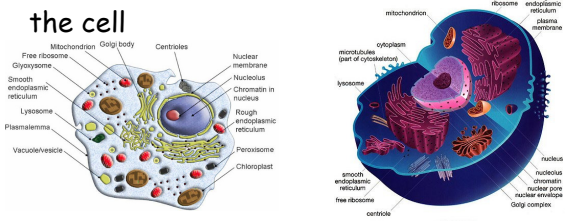
- In both plant and animal cells
- Location: near center of cell
- Contains chromosomes and the nucleolus
- Surrounded by nuclear membrane
- Function: control center of cell



Nov 13-8:50 PM

Organelles (little organs)

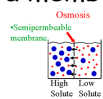
- In both plant and animal cells
- Location: inside cells
- Function: carry out various functions within the cell



Nov 13-8:55 PM

Osmosis

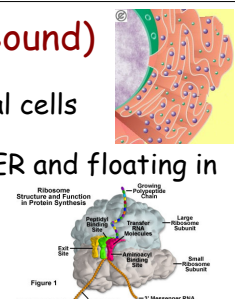
- Process of water moving from an area of higher concentration to an area of lower concentration
- Diffusion of water through a membrane
- No energy needed
- Ex: celery stays crispier when stored in water in the fridge



Nov 13-8:59 PM

Ribosome (Free or Bound)

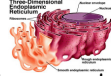
- Found in plant and animal cells
- Location: on the Rough ER and floating in cytoplasm
- Small, round structures
- Function: protein factories; where amino acids are combined to make the proteins our bodies need to survive



Nov 13-8:59 PM

Rough Endoplasmic Reticulum (the highway)

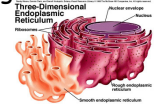
- Found in plant and animal cells
- Location: attaches to cell membrane and nuclear membrane
- A maze of tubular passageways that has ribosomes on it
- Function: transportation system for cell; helps move substances through the cytoplasm



Nov 13-9:11 PM

Smooth Endoplasmic Reticulum

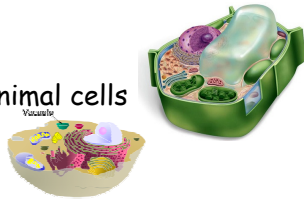
- Found in plant and animal cells
- Location: attached to cell membrane and nuclear membrane
- Maze of tubular passages without ribosomes on it
- Function: transportation system for cell; helps move substances through the cytoplasm



Nov 13-9:19 PM

Vacuoles

- Found in plant and animal cells
- Location: cytoplasm
- Animal cells have a few little ones; plant cells have 1 large one
- Function: storage tanks for the cell; store water, food, waste, enzymes, etc



Nov 13-9:22 PM