

Vocabulary	
Cell membrane	The membrane surrounding the cell; composed of phospholipid bilayer; thin, flexible barrier around the cell and regulates what enters and leaves the cell. Double-layer of phospholipids that forms a boundary between a cell and the surrounding environment and controls the passage of materials into and out of the cell.
Cell theory	Theory that states all organisms are made of cells, all cells are produced by other living things, and the cell is the most basic unit of life.
Cell wall	Rigid structure that gives protection, support, and shape to cells and plants, algae, fungi, and bacteria.
Centriole	Small cylinder-shaped organelle made of protein tubes arranged in a circle. (Near the nucleus: one or two tiny structures located in the cytoplasm of animal cells near the nuclear envelope) help divide DNA and from flagella and cilia.
Chloroplast	Organelle composed of numerous membranes that are used to convert solar energy into chemical energy: contains chlorophyll.
Chromatin	Granular material visible within the nucleus, consist of DNA tightly coiled around proteins.
Cilia	Small hair like structures used for movement or sensing things
Cytoplasm	Jelly like substance inside the cells that contains molecules and some cells organelles. Material inside the cell membrane-not including the nucleus
Cytoskeleton	Network of proteins, such as micro tubes and micro filaments, inside an eukaryotic cell that supports and shapes the cell
Endoplasmic reticulum	Interconnected network of thin, folded membranes that produce, process, and distribute proteins.
Eukaryotic cell	Cell that has a nucleus and other membrane-bound organelles
Flagella	Longer whip-like structures used for movement.
Golgi apparatus	Stack of flat, membrane-enclosed spaces containing enzymes that process, store and deliver proteins.
Lysosome	Organelle that contains enzymes. It's like a recycle center!
Mitochondria	Bean- shaped organelle that supplies energy, oxygen and carbon hydrates (ATP) to the cell and has its own ribosomes and DNA.
Nucleolus	Small dense region within most nuclei in which the assembly of proteins begin.

Nucleus	Organelle composed of double membrane that acts like a storehouse for most of a cell's DNA.
Organelle	Membrane-bound structure that is specialized to perform a distinct process within the cell.
Prokaryotic cell	Cell that does not have a nucleus or other membrane. They have the DNA all over the cell.
Ribosome	Organelle that links amino acids together to form proteins
Rough ER	Have ribosomes; produces proteins.
Smooth ER	Produces lipids (oil and fats) and detoxifies.
Vacuole	Organelle that is used to store material, such as water, food, or enzymes, that are needed by the cell.
Vesicle	Small organelle that contains and transports materials within the cytoplasm.
Phospholipid	Molecule that forms a double-layered cell membrane; consists of a glycerol, a phosphate group, and two fatty acids.
Fluid mosaic model	Model that describes the arrangement and movement of the molecules that make up the cell membrane.
Selective permeability	Condition or quality of allowing some, but not all, materials to cross the a barrier or membrane
Receptor	Protein that detects a signal molecule and performs an action in response.
Passive transport	Movement of molecules across the cell membrane without energy input of the cell.
Diffusion	Movement of dissolved molecules in a fluid or gas from region of higher concentration to a region of lower concentration.
Concentration gradient	Difference in the concentration of a substance from a location to another
Osmosis	Diffusion of water molecules across a semi-permeable membrane from an area of higher water concentration to an area of lower water concentration.
Isotonic	Solution that has an equal concentration of dissolved particles compared with other solution
Hypertonic	A solution that has a higher concentration of dissolved particles compared with another solution.
Hypotonic	Solution that has a lower concentration of dissolved particles compared with another solution.
Facilitated diffusion	Diffusion of molecules assisted by protein channels that pierce the cell membrane.
Active transport	Energy-requiring movement of molecules across the membrane from a region of lower concentration to a region of higher concentration.

Endocytosis	Uptake of liquids or large molecules into a cell by inward folding of the cell membrane.
Phagocytosis	Uptake of a solid particle into a cell by engulfing the particle into the cell.
Exocytosis	Release of substances out a cell by the fusion of a vesicle with the membrane.
ATP	Chemical energy
Atoms and cell	They are similar because they are both basic unit of life or building blocks

Ingestion	Digestion	Respiration	Excretion
Vesicles	Lysosomes	Mitochondria	Plasma membrane