

4. **Cell membrane:** also called a "plasma membrane", surrounds the contents of the cell and separates it from the other cells and the environment. Controls what materials go in and out of the cell. Made of lipids (phospholipids) in a bilayer (double-layer arrangement) - and embedded with proteins that act as channels allowing things in and out of the cell.
1. **cell theory:**
  1. all living organisms are composed of one or more cells.
  2. cells are the basic unit of structure and organization of all living organisms
  3. cells arise only from previously existing cells, with cells passing copies of their genetic material on to their daughter cells
22. **cell wall:** Plants, fungi, bacteria, and algae...but NOT in animals. A fairly rigid cellulose layer that serves as supportive and protective tissue around the cell. It lies outside the cell (plasma) membrane. NOT IN DRAWING.
9. **Chloroplast:** organelle found only in plant cells...contains chlorophyll and makes glucose through the process of photosynthesis. Capable of autonomous replication (has its own DNA).
23. **chlorophyll:** green pigment that captures light energy for photosynthesis
5. **Cytoplasm:** a sea-like (or gel-like) fluid, containing water and other chemicals, that fills the inside of a cell and is where the organelles are located within.
11. **Endoplasmic reticulum:** A series of folded membranes (usually located around the nucleus) that is used to move materials around the cell and is also responsible for manufacturing various important macromolecule polymers - such as proteins and lipids.
2. **Eukaryote:** contain a nucleus and other organelles that are bound by membranes
20. **Eukaryotic cell parts- name them::** vacuole  
ribosome  
chloroplast  
DNA  
mitochondria  
cell wall  
golgi apparatus  
nucleus  
cytoskeleton  
ER  
cytoplasm  
lysosome  
endoplasmic reticulum
14. **Golgi apparatus:** series of flattened sacs responsible for the packaging and shipping of various macromolecules produced by the ER to other parts of the cell or to areas outside of the cell.
17. **Is a animal cell eukaryotic or prokaryotic?:** Eukaryote
19. **Is a bacteria cell eukaryotic or prokaryotic?:** Prokaryote
18. **Is a plant cell eukaryotic or prokaryotic?:** Eukaryote
15. **Lysosome:** specialized organelle (vesicle) that contains enzymes that can break down all four types of macromolecules: proteins, nucleic acids, carbohydrates and lipids. The recycling trucks of the cell...or the stomachs of the cell (whatever works for you).
8. **Mitochondria:** an organelle with a double membrane that is the site of cellular respiration in eukaryotes; responsible for converting glucose into ATP (adenosine triphosphate)...the energy currency of the cell yo. Capable of autonomous replication (has its own DNA).
7. **Nucleus:** the organelle in a eukaryotic cell that contains the cell's genes - the genetic material, or DNA, organized into chromatin and chromosomes. The "information headquarters of the cell".
6. **organelle:** a discrete, membrane-enclosed cytoplasmic structure with a specific function...found in Eukaryotic cells only.
3. **Prokaryote:** small unicellular organism, such as a bacterium, that lacks internal membrane-bound organelles, does not have a nucleus
21. **Prokaryotic cell parts - name them::** cell membrane  
cytoplasm  
DNA  
ribosomes  
(cell wall - in some)
10. **Ribosome:** an organelle or particle where proteins are produced or synthesized. They are themselves composed of proteins (and RNA). Scattered throughout the cytoplasm and also attached to the rough ER.
12. **rough ER (endoplasmic reticulum):** dotted with ribosomes and is the area where proteins are manufactured.
13. **smooth ER (endoplasmic reticulum):** folded membrane area around the nucleus that is responsible for making (manufacturing) various lipids - including cell and organelle membranes, steroids, and hormones.
16. **Vacuole:** storage centers within a cell. A water-filled sac that serves various functions in the cell, including transport, structural support, and isolation of waste and harmful materials.