**Cells**

**Cell Theory**

1. Cells are the basic unit of structure and function.
2. All life is made of cells.
3. All cells come from other cells

**Prokaryote vs Eukaryote**

Prokaryote

* Lack a nucleus and membraned-organelles - Simple - Unicellular
* EX: bacteria, archaea

Eukaryote

* Have a nucleus and membraned-organelles - Complex - Uni and Multi-Cellular
* EX: protists, fungi, plants, animals

**Organelles**

Exterior

* Cell membrane – selectively permeable (only certain things in and out) – maintains homeostasis
* Cell Wall – rigid support and structure

Interior

* Nucleus – controls cell, stores DNA
* Ribosome – makes proteins
* Endoplasmic Reticulum (ER) – chemical reactions
* Mitochondria – makes energy through respiration
* Cilia/Flagella – movement
* Plasmid – ring of genetic info in prokaryotes
* Chloroplast – makes food using sunlight in photosynthesis
* Lysosome – breaks down waste
* Cytoplasm – “filling” of cells
* Golgi Apparatus – transports
* Vacuoles – store water

**ALL Cells have** – cell membrane, cytoplasm, ribosomes, genetic info

**Plant vs Animal**

* Animal cells lack a cell wall and chloroplasts

**Label the Cells**

Animal



Plant

