**Golgi**

Structure: Made of 5-8 sacs.

Function: Processes and packages proteins and lipids.

**Endoplasmic Reticulum (ER)**

Structure: Series of tubes and sacs.

Function: Transports proteins.

**Nucleus**

Structure: Contains genetic material DNA (chromosomes).

Function: Directs cells activities

**Mitochondria**

Structure: Rod shaped and found throughout the cell.

Function: Powerhouse of the cell, make energy (ATP) from sugar.

**Lysosome**

Structure: Vesicle built by Golgi bodies.

Function: Digest excess or worn out organelles, food, bacteria, or viruses.

**Vacuole**

Structure: Large in plant cells, small in animal cells.

Function: Storage and digestion.

**Cytoplasm**

Structure: Jelly-like material found inside the cell.

Function: Supports and protects cells oganelles.

**Ribosome**

Structure: Not bound by a membrane, each cell contains thousands. Can be found on the ER.

Function: Make proteins.

**Chloroplast**

Structure: Found in plant cells, contains chlorophyll.

Function: Photosynthesis, uses light to make sugar for plants.

**Cell Wall**

Structure: Found in plant and bacteria cells.

Function: Supports and protects cells.

**Cell Membrane**

Structure: Located on the outside of the cell, made of a phospholipid bilayer.

Function: Controls what goes in/out of the cell.

**Prokaryote**

Structure: Has a cell wall and cell membrane, genetic material (DNA) is NOT in a nucleus.

Function: These are unicellular simple organisms, such as bacteria.

**Eukaryote**

Structure: Plants have a cell wall, animal cells do not. The genetic material (DNA) is in a nucleus. Have many organelles.

Function: These are mostly, complex organisms, such as plants and animals (with the exception of the protists).

**Prokaryotic**

Structure: Has a cell wall and cell membrane, genetic material (DNA) is NOT in a nucleus.

Function: These are unicellular simple organisms, such as bacteria.

**Cell**

The basic unit of structure and function in living things.

**Cell Theory**

A widely accepted explanation of the relationship between cells and living things.

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**Active Transport**

The movement of molecules through a cell membrane in the opposite direction of natural movement. Needs cellular energy (ATP)

E.g. Transport proteins, endocytosis and exocytosis.

**Passive Transport**

The movement of materials through a cell membrane without using cellular energy.

E.g. Diffusion and osmosis

**Chlorophyll**

A green pigment found in the chloroplasts of plants, algae, and some bacteria.

**Bacteria**

Single-celled organisms that lack a nucleus, prokaryote.

**Homeostasis**

The maintenance of stable internal conditions in an organism.

**Enzyme**

A chemical that speeds up chemical reactions in a living thing.

**Photosynthesis**

The process in which some organisms use water along with sunlight and carbon dioxide to make their own food.

**Respiration**

The process by which cells break down simple food molecules to release the energy they contain.

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