**Cell Structure Foldable**

Skip a couple pages in your foldable notebook and write the heading “Cell Structure”

1) Make a 3 flapper with the following terms on each flap: SEM, TEM, confocal. Write the description underneath each flap. Glue into notebook and label this “Types of Microscopes”

2) Draw a Venn diagram showing the similarities and differences between prokaryotic and eukaryotic cells.

Prokaryotic cells Eukaryotic cells

3) Contruct 2- 6 flappers and a 5 flapper (for a total of terms below). Put the organelle on the outside of the flap and the function inside. Glue into your foldable notebook.

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| **Organelle** | **Functions** |
| Mitochondria | **Powerhouse of the Cell** – provides the energy for cellular work. |
| Nucleus | The **control Center of the cell** – holds the DNA and all the information for the cell. |
| Nuclear Membrane | Surrounds the nucleus and contains pores to allow mRNA to leave the nucleus and deliver its message. |
| Cell Membrane | **The gate keeper** – phospholipid bilayer that controls what enters and leaves the cell. |
| Cytoplasm | Fluid layer of the cell that holds the organelles composed of ions and water. |
| Cell Wall | Thick Membrane layer surrounding plant cells that contains cellulose and encloses the cell contents. |
| Smooth ER | A series of sacks that detoxify the cells . |
| Rough ER | Located near the nucleus these sacks are covered in ribosomes and aide in the formation of proteins. |
| Nucleolus | Located inside the nucleus and contain RNA. |
| Chromatin | Another term used to describe **DNA the hereditary information** of the cell. |
| Ribosomes | Sites of protein synthesis |
| Vessicles | Hold and transport proteins |
| Golgi complex | Where proteins are packaged into vesicles and transported |
| Chloroplast | In plants contains chlorophyll and responsible for photosynthesis. |
| Flagella | Whiplike tail used to move animal and bacterial cells |
| Vacuoles | Sacs that hold water and ions very large in plants |
| Cytoskeleton | Fibers in the cytoplasm used to move organelles in the cell and give structure and support to the cell. |
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