**Organelle Function Notes**

Recap on Cells:

**Questions/Pictures/ Key Words**

**“…”** means something the teacher said

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**Cell Structure & Function**

**Cell theory:**

•All living things are made up of cells.

•Cells are the smallest working units of all living things.

•All cells come from preexisting cells through cell division.

**Definition of a cell:**

•A cell is the smallest unit that is capable of performing life functions.

**Prokaryotic Recap**

|  |  |
| --- | --- |
| •Do not have structures surrounded by membranes•Few internal structures•One-celled organisms, Bacteria  | prokaryote*Bacteria!* |

**Eukaryotic Recap**

|  |  |  |
| --- | --- | --- |
| •Contain organelles surrounded by membranes•Most living organisms | **Animal Cell eukaryote_animal** | **Plant Cell** **eukaryote_plant** |

**“…”** means something the teacher said

Cell Parts: Organelles

**A) Surrounding the Cell**

**Cell Membrane**

•Outer membrane of cell

•Double layer of fats called lipids “they look like two tailed sperm”

•**Function**: controls movement in and out of the cell

**Cell Wall**

•Most commonly found in plant cells & bacteria

•Function: Supports & protects cells

**B) Organelle Inside the Cell**

**Nucleus**

•**Function**: Directs cell activities

•Separated from cytoplasm by nuclear membrane

•Contains genetic material – DNA

**Cytoplasm**

•Gel-like mixture

•Surrounded by cell membrane

•Contains hereditary material

**Ribosomes**

•Each cell contains thousands

•**Function**: Make proteins

**B) Organelle Inside the Cell (Continued)**

**Questions/Pictures/ Key Words**

*****“the powerplant”*

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*“THIS IS THE UPS STORE”*

**Mitochondria**

•**Function**: Produces energy through chemical reactions – breaking down fats & carbohydrates

**Chromosomes**

•In nucleus

•Made of DNA

•**Function**: Contain instructions for traits & characteristics

**Lysosome**

•**Function**: Digestive 'plant' for proteins, fats, and carbohydrates

–Transports undigested material to cell membrane for removal

–Cell breaks down if lysosome explodes

**Vacuoles**

•**Function**: Membrane-bound sacs for storage, digestion, and waste removal

•Contains water solution

•Help plants maintain shape

**Chloroplast**

•Usually found in plant cells

•Contains green chlorophyll

•**Function**: Where photosynthesis takes place

**Summary**:

**Who has organelle?**

**What would happen if a Lysosome exploded in the cell?**