

# A Cellular Adventure – Organelle Vocabulary

## **Cytoplasm**

- Jelly like substance
- Breaks down molecules to produce energy
- Builds other molecules up

## **Lipid**

- Organic compounds like fats, oils, and waxes.
- They are used for structure and to store energy.

## **Cell Membrane**

- Thin, outer layer of the cell.
- Holds organelles in place.
- Imports and exports nutrients.
- Passes waste and unwanted particles to the outside of the cell.
- The “Gate Keeper” of the cell.

## **Rough Endoplasmic Reticulum**

- Makes large macromolecules like proteins, lipids, and carbohydrates.
- Separates molecules.
- Transports proteins inside the cell and to other parts of the body.

## **Ribosomes**

- Synthesize, or make, proteins.
- Pass the proteins into the cytoplasm.
- Found on the outside of the rough endoplasmic reticulum and in the cytoplasm.

## **Smooth Endoplasmic Reticulum**

- Not covered with ribosomes.
- Synthesizes, or makes, lipids (fats, oils, and waxes).

## **Golgi Body**

- Collect,
- Modify, &
- Package substances manufactured by the cell.

## **Lysosome**

- Breaks down worn-out organelles, debris, and ingested particles.
- The “Trash Can” of the cell.

## **Vacuole**

- Storage area for the cell.
- Keeps materials such as food until the cell needs them.
- The “Suitcase” of the cell.

## **Mitochondria**

- Uses sugars & fatty acids to generate energy for the cell.
- The “Powerhouse” of the cell.

## **Nucleus**

- Directs all activities inside the cell.
- Manages cell division.
- The “Control Center” of the cell.

## **Nucleolus**

- Synthesizes, or makes, ribosomes.

## **Nuclear Membrane**

- Separates the nucleus from the cytoplasm.
- Contains the DNA, chromosomes, and genes of the cell.

## **Cell Wall**

- The rigid outer wall of a plant cell.
- Provides structure so the plant can stand up straight.

## **Chloroplast**

- Has chlorophyll inside that allows the plant to do photosynthesis.
- Photosynthesis combines carbon dioxide and water to make food for the cell.