

Most cells have these parts

Vesicles (#9 for all cell type models)

- Small containers that carry materials between cell compartments and out of the cell

Cell membrane

- Protective barrier around the outside of the cell
- Controls what molecules get in and out
- Helps cells communicate with each other

Nucleus

- Stores genetic information in the form of long, stringy DNA molecules
- This is where genes are copied to make messages (not shown in the model)

Cytoskeleton

- Long fibers that give a cell shape and structure
- Keeps organelles in place

Mitochondria

- Kidney-shaped with two layers of membrane
- Break down molecules to get energy for the cell

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Ribosomes

- Small structures that don't have their own membrane
- Read messages from the nucleus to build proteins (proteins are colored purple in the model)

Endoplasmic Reticulum (ER)

- Smooth ER is where lipids and hormones are made
- Rough ER has ribosomes on it, which build proteins

Golgi apparatus

- Gets packages of proteins from the ER and moves them through a series of stacked compartments
- Adds tags to proteins based on where they need to go in the cell

Lysosome

- Small compartment filled with digestive enzymes
- Breaks down unneeded proteins and damaged cell parts for recycling

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