

## *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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