

Cell Analogy Project:

Instructions:

Think of an analogy for a eukaryotic cell that you know from your own life experience, and think about how each organelle in the cell can be represented by your analogy.

For example: if you think a cell is like a car:

- The **engine** is like the **mitochondria** - burns food/fuel in order to power the cell
- The **tail pipe** is like the **lysosomes** - breaks down and removes harmful cell byproducts
- The **GPS** is like the **nucleus** - has information for what the car should do

Pick at least 10 of the organelles listed below, including all of the bolded ones, and fill out the chart for those organelles to show what they do in the cell, and how they are represented in your analogy.

Then, use resources available in the maker studio to build a model of your analogy. Include labels and a key to understanding your model.

| Part of Cell | Description/Function | Analogy + Reasoning |
|------------------------------|----------------------|---------------------|
| Cell membrane | | |
| Nucleus | | |
| Endoplasmic reticulum | | |
| Ribosomes | | |

| | | |
|---------------------|--|--|
| Mitochondria | | |
| Cell wall | | |
| Golgi Apparatus | | |
| Plasmodesmata | | |
| Chloroplast | | |
| Vacuole | | |
| Lysosome | | |
| Cytoskeleton | | |

| | | |
|-------------|--|--|
| Peroxisomes | | |
| Vesicles | | |
| Centrioles | | |