

Cell Analogy

Have you ever been describing something unfamiliar to someone, and they didn't understand you? When you explained it, you probably tried to compare that thing to something that the person was familiar with. For example:

The blood vessels in our bodies are like highways because blood cells travel through the vessels like cars travel down highways.

When you compare one thing that is unfamiliar to something that is familiar and has the same function, this is called an **analogy**. We use analogies to help us understand how two things that are unrelated can be related by showing how both of them work in a similar way.

Below are some ideas of what to compare your **cell** parts to:

- The mall
- A school
- A football game
- A basketball game
- A soccer game
- A hospital
- Your favorite TV show
- Your favorite restaurant
- A concert
- *Or come up with your own idea!*

Once you have your analogy picked out, you and your lab partners must fill in the chart provided. You must do the following things:

1. Decide with your group if you will model a plant or animal cell.
2. In the first column of the chart, the name of the organelles that are to be included in the analogy are listed.
3. In the next column of the chart, write the name of the part in your analogy that has a similar function as the cellular organelle.
4. In the next column, write **how** the different parts of your object are like the **cell** part which does the same task. Discuss **LOCATION** and **FUNCTION**.
5. When you have finished making your list of comparisons, your group will need to create a poster of your analogy. Supplies such as crayons, markers, rulers and tape are available. Be sure to **label** each part of the object with its cell part name and name in the analogy. Include the title, "How a _____ Is Like An (Animal or Plant) Cell"

Include:

***Chromatin is on p. 14 of your book**

***Cytoskeleton: small fibers found in the cytoplasm that give structure and shape to an animal cell**

Organelle	Part in Analogy with similar task	Explanation of how the organelle and part in analogy are similar
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Ex. DNA Nucleus	Ex. Captain of a cruise ship Bridge of the ship (control room)	The captain is like the DNA because he is in charge of the boat. The captain controls where the boat goes, and tells everyone what to do on the boat. The nucleus is like the bridge of the ship because it contains the captain.
Nucleus		
Nucleolus		
DNA		
Cell Wall		
Cell Membrane		
Large central vacuole		
Endoplasmic Reticulum (Rough)		
Ribosomes		
Endoplasmic Reticulum (Smooth)		
Golgi Apparatus		
Chloroplast		
Mitochondria		
Lysosome		
Small vacuoles		
Cytoskeleton		
Chromatin		

Tips:

The protein, ribosomes, ER and Golgi all need to be related in their functions. The ribosomes are assembled by the nucleolus, the protein will travel through the ER and then the protein will be modified, and shipped out by the Golgi. Tie this all together in your analogy.

Remember to choose the organelles specific to either plant or animal.