

CELL STRUCTURE ANALOGY (SCIENCE 8)

In this unit, we learned about the function, location, and appearance of the following:

- Cell wall
- Cell membrane
- Cytoplasm
- Nucleus
- Ribosome
- Mitochondria
- Chloroplast
- Vacuole
- Lysosome
- Endoplasmic Reticulum

What is an Analogy?

An analogy is a **comparison** of two things. It helps to explain or clarify aspects of one of those things by comparing it to another.

See below for analogies:

- Love is like a hug because it is comforting and makes you feel warm and fuzzy.
- Spraying perfume and having it diffuse across the room is like what happens when the recess bell rings at an elementary school and all the kids rush out into the field and playground: they are spreading out evenly over all the space that they have available to them, much like the perfume particles spread out among all the space in the room.

Your Assignment

Your task is to **create an analogy of the cell**. In your analogy, you must include all the cell structures and organelles listed above. You can be creative and compare the cell to anything you like. For an example, see **workbook pg. 21**. If you are stuck for ideas, here are some suggestions:

- Cambie Secondary School
- A city or country
- A prison
- A computer or car (assuming you know a lot about their individual parts)

Some of the structures and organelles may not fit as easily into your analogy as others, but that is okay! Your task is to draw as close a parallel as possible between a cell structure and a feature of the thing you are comparing it to.

Example

For example, suppose we decide to use Cambie Secondary School as our comparison. Modelled below is a thought process that might help you get started.

- Cell wall:
 - What is its purpose? [to protect the outside of the cell, to give it structure]
 - What structure or feature or person at Cambie performs a similar function, except in the school setting?
 - *The cell wall is like the outside building walls at Cambie, because they both protect what is inside and give it structure.* ← Your final assignment will have a sentence like this, for each of the cell structures.
- Cell membrane:
 - What is its purpose?
 - What structure or feature or person at Cambie performs a similar function, except in the school setting?
 - *The cell membrane is like ... at Cambie, because ...*

You would repeat this thought process for each of the cell structures and features, until you had a comparison between a cell and Cambie Secondary School, for every one of the cell structures and organelles.