

Building a Body like a Franchise Business Analogy

- ❖ **Goal:** Create an analogy for how multicellular organisms grow from cells. Keep in mind that the cell must absorb and use organic compounds, and complete the cell cycle. Explain with a Graphic Notes.

Key words in this assignment

An **Analogy** is saying A is like B because...

Example: DNA is like the boss because it knows the master business plan, and organizes the workers.

Growth is the driving force behind this assignment. Organisms grow by creating new cells through mitosis. We need to pick an analogy that can show growth by adding additional copies.

Graphic notes are diagrams / pictures that contain text to help explain a process. They are similar to a sketchnote, but the focus is on using vocabulary to explain a process.

- ❖ Example Franchise Analogies:

- McDonalds
- Chipotle
- Subway

- ❖ Components to consider:

1. Cells / Franchises need a role and resources:
 - a. Cells need **macromolecules** / **building materials** to build new cells.
 - b. Cell need to have a **function** to help keep the organism alive. Franchises help society with a need (food).
2. Cells need a **master plan / boss**. Franchises need a **business plan**
 - a. Cells require a copy of the **DNA**. Franchises would have a business plan
 - b. Cells need to have **workers** that build their internal components, and use the building materials.
 - c. Cells need to have a **master plan / boss** that organizes the workers.
 - d. Cells need to be **able to pass on** this master plan to the new cells.
 - e. Cells need to follow a process, **the cell cycle**, to dictate when they will divide.
3. Growing requires adding new cells through the cell cycle:
 - a. Stages
 - b. Checkpoints and regulation

Example: Cells grow like a Franchise Business (you can use mine, but choose a different franchise).

- ❖ Bonus points for creativity, such as creating your own analogy.

Franchise businesses, such as Chipotle, are a lot like cells. They have many components each responsible for making the business run internally. In addition, they seek to grow and reproduce so that the franchise expands to have more locations. It hires employees that do everything for the business including clean up, making food, cooking, and ordering supplies. There is a manager that helps to train the employees. There is an owner who trains the manager by following Chipotle's master business plan. The owner monitors his business to see if it has grown enough to build another Chipotle. Enough materials need to be added and built to create the new location.

For my analogy I would draw out the following:

- Top half of paper would be one cell / chipotle location. Bottom half of paper would be the new location next to / near the old one because the old one split.
- Building materials = Macromolecules. Show the various carbohydrates, lipids, proteins, and nucleic acids
- Lipids = new walls and walls for offices, furniture and tables for the employees and customers to sit on.
- Sugars = materials for the food, electricity, but also through cell respiration = ATP.
- ATP = \$\$ for the employees
- Proteins = Employees they do everything for the business.
- RNA = Manager training the employees
- DNA = Owner / Boss, he has a master plan. He will need to be copied during S Phase to take over the new location. To me this is like going through training.
- Nucleus = Boss's office.
- Organelles = various rooms such as the kitchen, the storage room, the eating area, the service line, the cashier.