Name _____ Date Answer Key

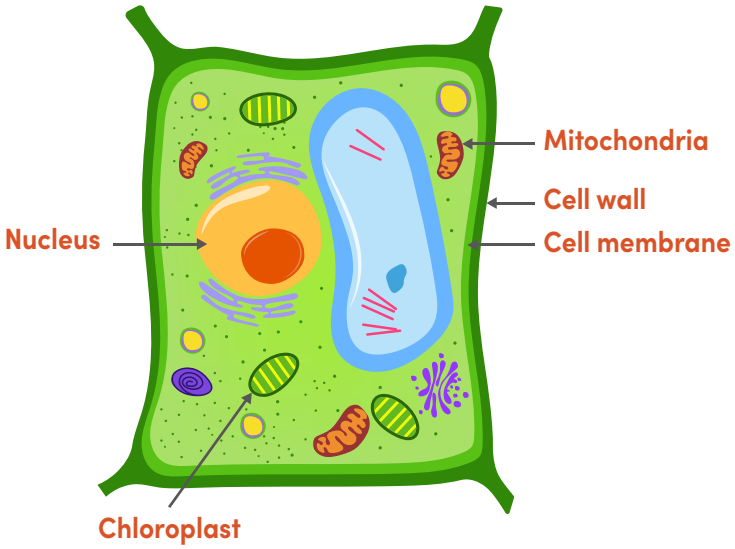
# CELL ORGANELLES

A **cell** is the building block of all living things. All living things are made up of cells. An organism that consists of one single cell is called **unicellular**, while an organism that consists of many different cells is called **multicellular**.

Within a cell, special structures are responsible for particular functions. These structures are called **organelles**. Many different types of organelles work together so that the cell can function as a system.

The **nucleus** is often called the brain, or control center, of a cell. It contains genetic material and is responsible for cell growth and reproduction.

**Chloroplasts** are where photosynthesis occurs in plant cells. Photosynthesis produces sugars that plants can use for energy and growth. Chloroplasts contain a pigment called chlorophyll, which gives them a green color.




The **mitochondria**, often called the powerhouse of the cell, are where cellular respiration takes place. This is how the cell turns sugars into a usable form of energy.

The **cell membrane** is the cell's security guard. It forms the boundary that controls what enters and leaves the cell. It's semi-permeable, meaning only certain substances can pass through it.

The **cell wall** is the outer layer of a plant cell. It gives the cell strength and structure and serves as a protective barrier.

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**Show what you know about cell organelles!** Summarize what you've learned by writing a sentence or two explaining the function of each organelle. Sample Answers

1. **Nucleus:** The nucleus contains genetic information and controls cell growth and reproduction.
2. **Chloroplast:** The chloroplast is where photosynthesis takes place in plant cells. It produces sugars.
3. **Mitochondria:** The mitochondria are where cellular respiration occurs. They turn sugar into energy.
4. **Cell Membrane:** The cell membrane controls what enters and leaves the cell.
5. **Cell Wall:** The cell wall is the outer protective layer of a plant cell. It provides strength and structure.