

What is a Cell?

The basic unit of life is the **CELL**. Cells are like tiny *building blocks* that make up all living things, including plants, animals, and even us! Let's investigate cells!

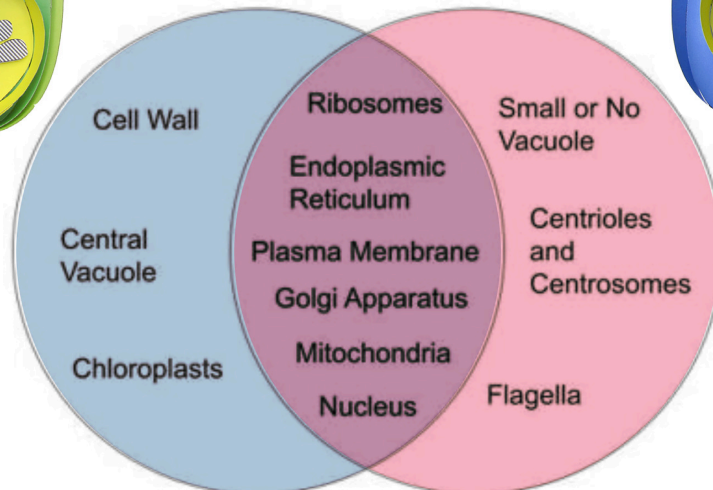
The cell is the smallest unit that is considered *alive*. Some organisms like bacteria and yeast are only one cell. Plants and animals are made of cells too! Just many millions of cells that all work together. Imagine them as the busy workers in a bustling city, each with its own special job to do. Some cells help us see, others help us move, and some even help us breathe! Just like how a house is made up of different rooms, our bodies are made up of different types of cells, each doing its part to keep us healthy and happy.

Plant cells and animal cells are like two different teams with their own special equipment for playing different games. Plant cells have a strong outer layer called the *cell wall*, which acts like a sturdy fence, while animal cells have a flexible outer layer called the *cell membrane*, more like a soft blanket. Plant cells also have green structures called *chloroplasts*, which help them make food using sunlight in a process called *photosynthesis*. Animals don't have chloroplasts, but they have structures called *mitochondria*, which act like tiny powerhouses, helping them turn food into energy. Both types of cells have a control center called the *nucleus*, where all the important instructions are stored. So, while they may look different and have their own special features, both plant cells and animal cells work together to keep living things alive and growing!

Plant Cell



Animal Cell



What is a Cell?

Here are the definitions in simple terms:

1. Cell Wall

The sturdy outer layer of a plant cell that acts like a protective barrier, like a strong fence around a house.

2. Central Vacuole

A large storage space in plant cells that holds water, nutrients, and waste, like a big water tank for the plant.

3. Chloroplast

Tiny green structures in plant cells that use sunlight to make food through a process called photosynthesis, like little solar panels for the plant.

4. Ribosome

Small structures in cells that make proteins, like tiny factories producing important materials for the cell.

5. Endoplasmic Reticulum

A network of tubes and sacs in cells that helps transport materials, like a conveyor belt moving things around inside a factory.

6. Plasma Membrane

The flexible outer layer of a cell that controls what goes in and out, like a gatekeeper allowing only certain things to enter or leave the cell.

7. Golgi Apparatus

A part of the cell that packages and ships proteins to where they are needed, like a postal service sorting and delivering packages.

8. Mitochondria

Powerhouses of the cell that convert food into energy, like tiny batteries providing energy for the cell's activities.

9. Nucleus

The control center of the cell that holds the instructions for everything the cell needs to do, like a brain guiding all the cell's actions.

10. Vacuole

Small storage compartments in animal cells that hold water, nutrients, and waste, like tiny storage closets in a house.

11. Centriole

Structures in animal cells that help with cell division, like guides ensuring cells split correctly during reproduction.

12. Flagella

Long, whip-like tails on some animal cells that help them move, like tiny motors propelling the cell through its environment.

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