

What did i learn about cell and dna?

[Science](#), [Biology](#)



A cell is both the smallest as well as the most important unit of every living being, plant or animal. There are specialized cells in the body which carry out different functions. However, all cells are the same in that they all have a plasma membrane to protect them and determine what enters the cell and what leaves the cell. Inside the plasma membrane is the cytoplasm, a gelatinous mixture made up of water, fats, proteins, sugar, and other minerals. Most of the cell's metabolism occurs in the cytoplasm where what are called the organelles work together to perform the metabolism.

The nucleus is in the center of the cell. It controls the cell's operations, such as directing cell division and determining the function of the cell. Only eukaryotic cells have a nucleus. The nucleus contains chromosomes, rod-shaped structures in the nucleus that contain genes, or regions of DNA.

Within the cell is a reticulum, or network, of canals to manufacture proteins for the cell to use called the endoplasmic reticulum. Large proteins are made from smaller proteins, a process called anabolism which takes place on the ribosomes of the endoplasmic reticulum. Also in the cytoplasm is the mitochondria, known as the power plants of the cell where foods are burned to release energy in the presence of oxygen. This organelle is where ATP is made.

This chemical process is known as catabolism. Together with anabolism they are combined to make the process of metabolism. There are two kinds of endoplasmic reticulum, rough and smooth. The rough ER has thousands of ribosomes attached to it, and the smooth ER does not have any ribosomes because it does not make any protein. Another organelle is called a Golgi

body. This is where the enzymes in a Golgi body work to make the proteins and lipids either assemble or break down the lipids or the carbohydrates.

Proteins are transported in what is called a vesicle from the ER and are changed to their final form. From there they are either carried to the plasma membrane or the lysosomes. A lysosome is a vesicle that is in charge of digestion. They are filled with enzymes that easily break down many proteins, carbohydrates, and much debris. Cells are different in their functions and their shapes as well. However, all cells whether plant or animal, are the most important unit of every living thing. Every cell contains a plasma membrane, cytoplasm, and organelles which carry out the functions of that cell. Only eukaryotic cells have a nucleus, a double membrane where the DNA is located. The organelles of a cell work together to perform metabolism, the combination of anabolism and catabolism.