

# Plant and animal cell

[Environment](#), [Animals](#)



First of all, plant and animal cells are eukaryotic cells. They have complex structures but they both have major differences, as well some similarities. Plant cell are usually larger than animal cell. Both types of cells have many organelles. The plant cell has a few more organelles than the animal cell but for the most part they have the same organelles. Animal and plant cells both have a nucleus, ribosomes, Golgi apparatus, and endoplasmic reticulum. Only plant cells have a cell wall, vacuole, chloroplast, and plastids.

Both cells are controlled by a nucleus and otherwise they wouldn't be able to function without it. As well, the ribosomes go through a process called synthesis of proteins, these proteins are necessary for life in the cells. The Golgi apparatus packs the proteins to stay in the cell. The endoplasmic reticulum is categorized into two parts, Rough endoplasmic reticulum and smooth endoplasmic reticulum. The rough endoplasmic reticulum has ribosomes attached to it; it packs the proteins made by the ribosomes.

The smooth endoplasmic reticulum does not have ribosomes but it detoxifies poisonous material in the cell. Furthermore, animal cells are rounded and irregular in shape, while plant cells have fixed rectangular shapes. Plant cell have cell wall which makes a rectangular structure, these structure are composed of cellulose, hemicellulose, and a variety of other materials, but animal cells don't have this cell wall causing it to have dynamic shapes (spherical shape).

Plant cells have chloroplasts for the utilization of sunlight and this is what contributes for a plant to look green. Plant cell do photosynthesis while animal cells can't. The chloroplast is only present in plant cell because they make their own food. Also plant cells contains a large central vacuole that is

enclosed by a membrane that makes up 90% of the cell volume, while as compared to the animal cell, it has one or more vacuole but smaller than the plant cell. Also plant cells have plastids and animal cells don't have.

Plastids are small organs in the cytoplasm that store colored pigment and food. Plant cells use linking pores in their cell wall to connect to each other and pass information while animal cells depend on an analogous system of gap-junctions that allows communication between cells. Animal cells have centrioles, cilia and lysosomes but plant cells have no need for centrioles because their spindle fibers are connected to the cell wall. Below are two pictures, one of an animal cell and the other from a plant cell.

## Reference

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