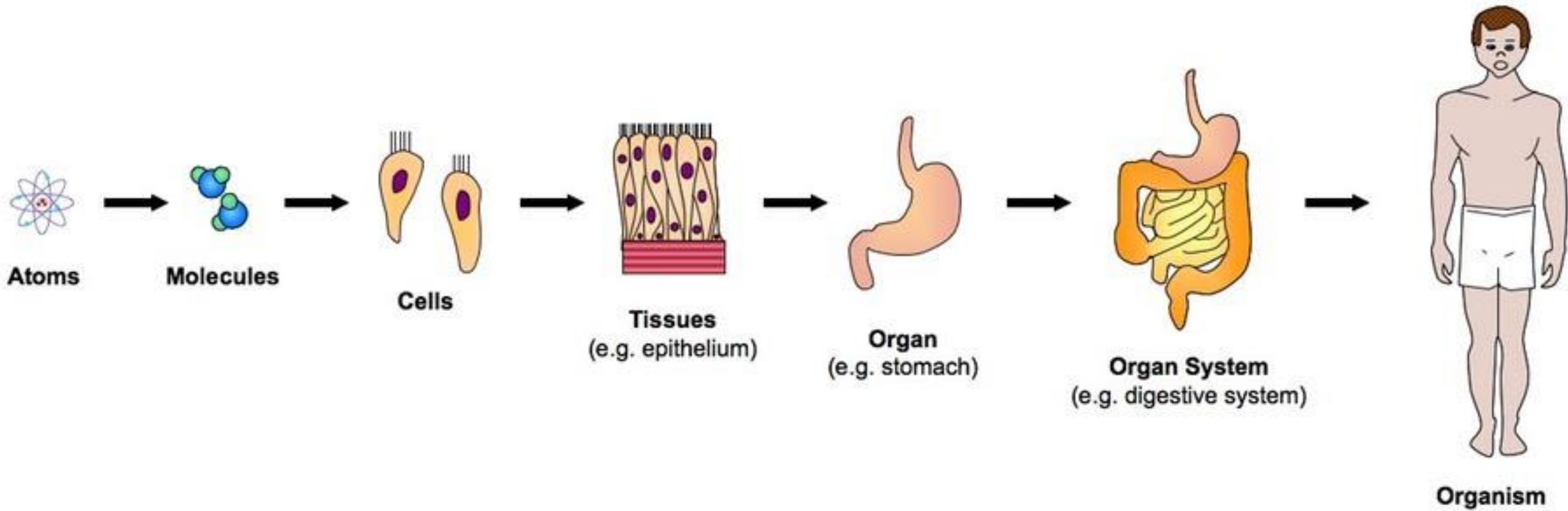
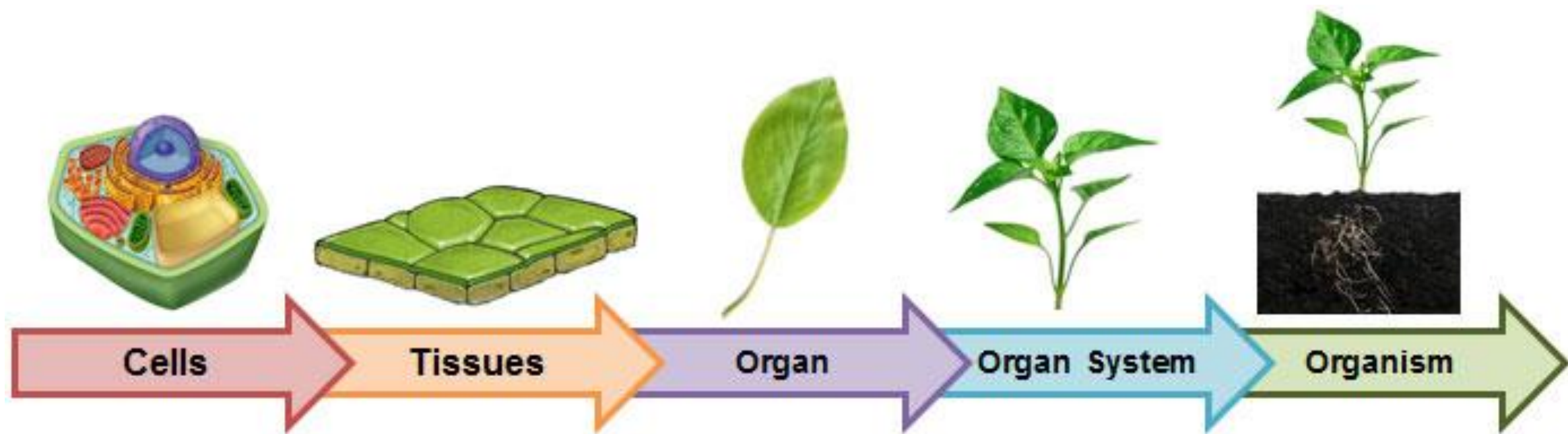


The Cell

What is a cell?

- A cell is the smallest part of a every living being.
- The cell is the basic unit of life.
- All living things are made up of cells.
- Cells can be compared to bricks we use to build a house.



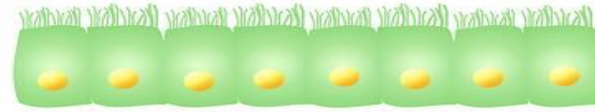


Inside a cell

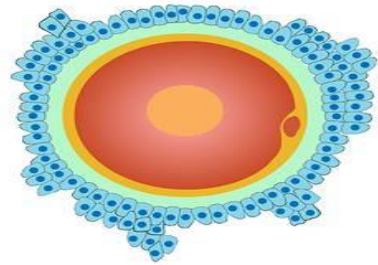
Although body cells can look very different one from the other, most of them have the same parts.



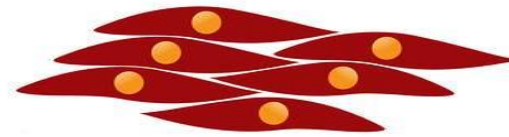
Red blood cell



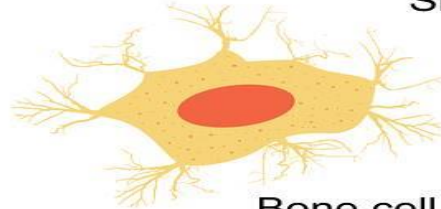
Columnar epithelial cells



Ovum cell



Smooth muscle cells



Bone cell



Nerve cell



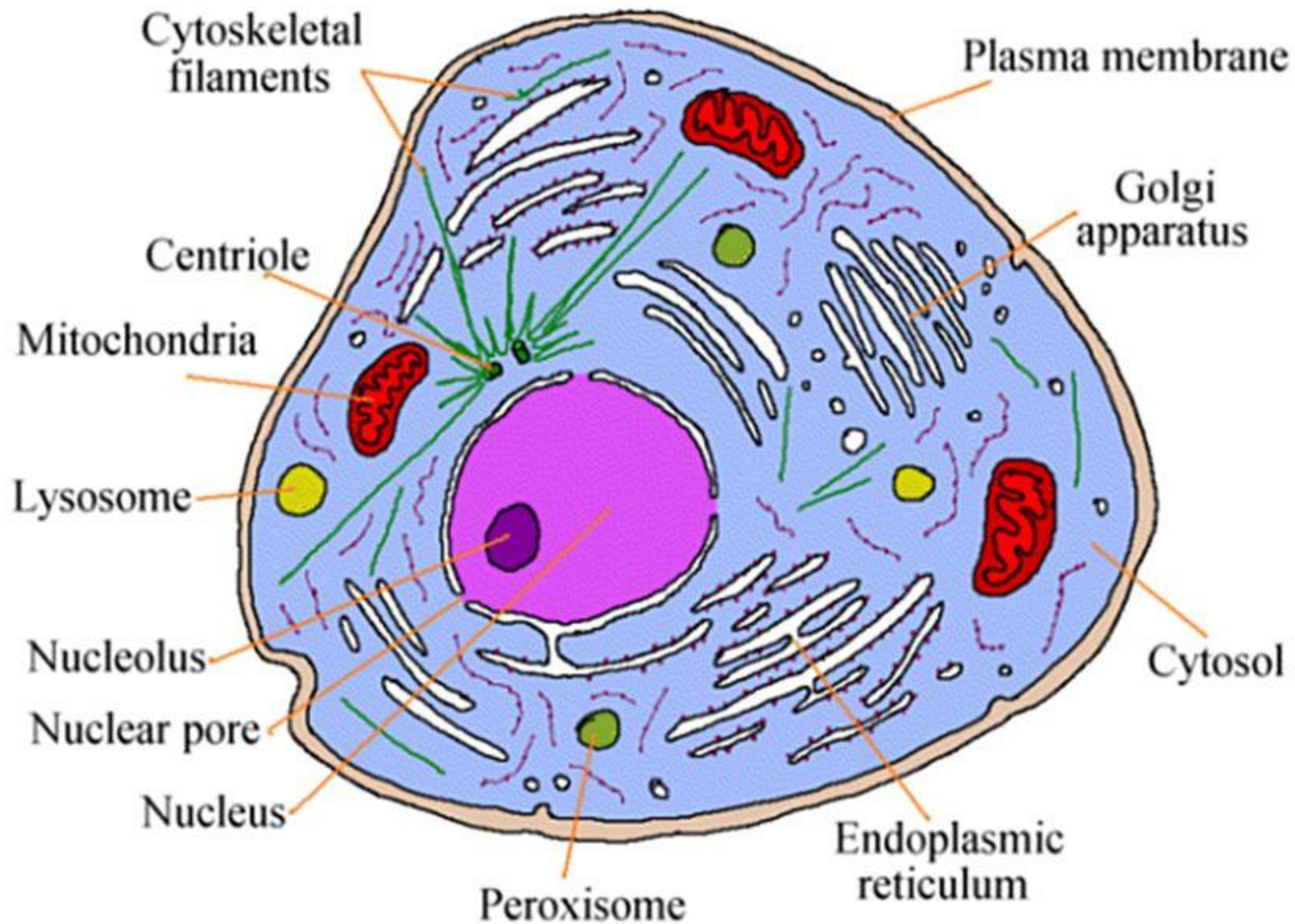
Sperm cell

The organelles

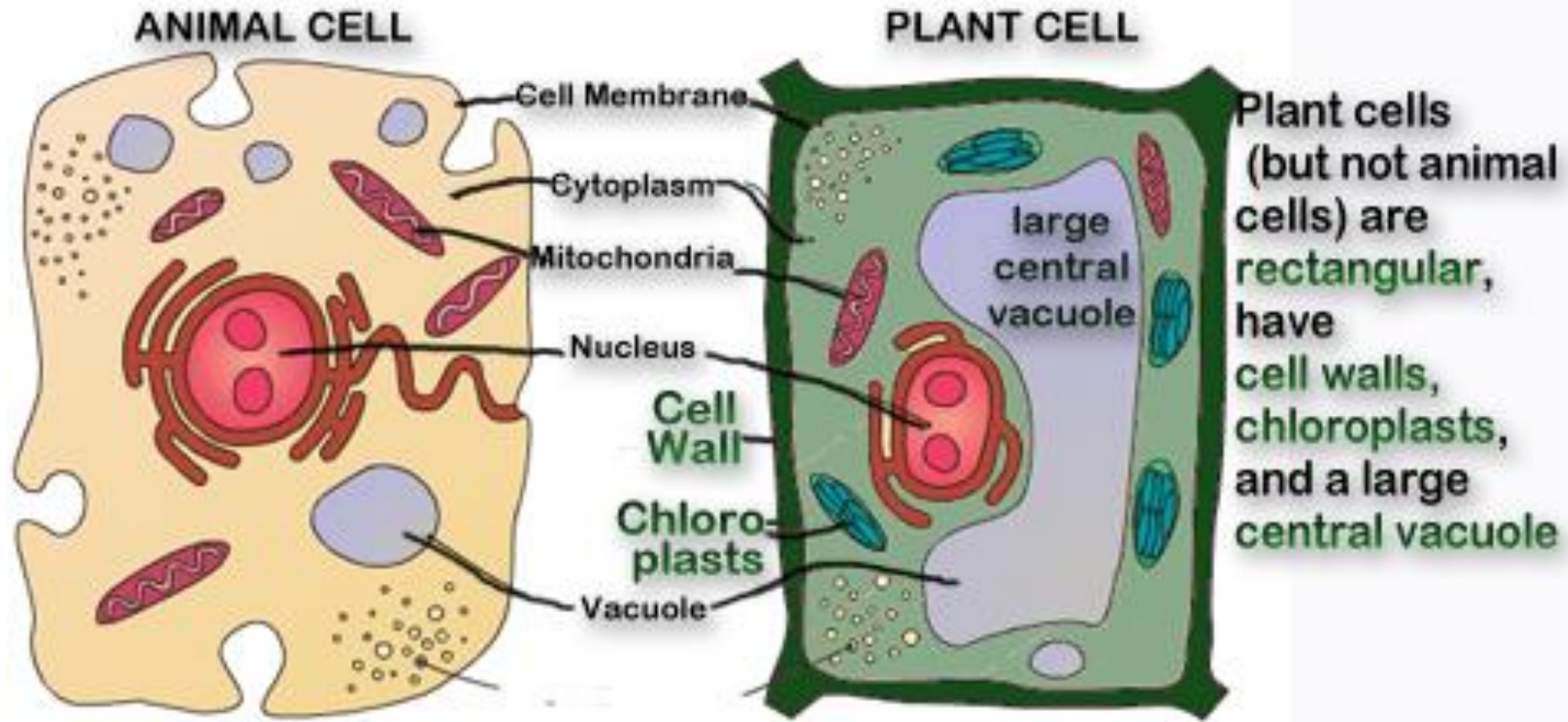
Inside a cell there are several parts, called organelles, which help it work.

They make body chemicals, carry messages and help you think, move, eat and breathe.

Organelles of the Cell



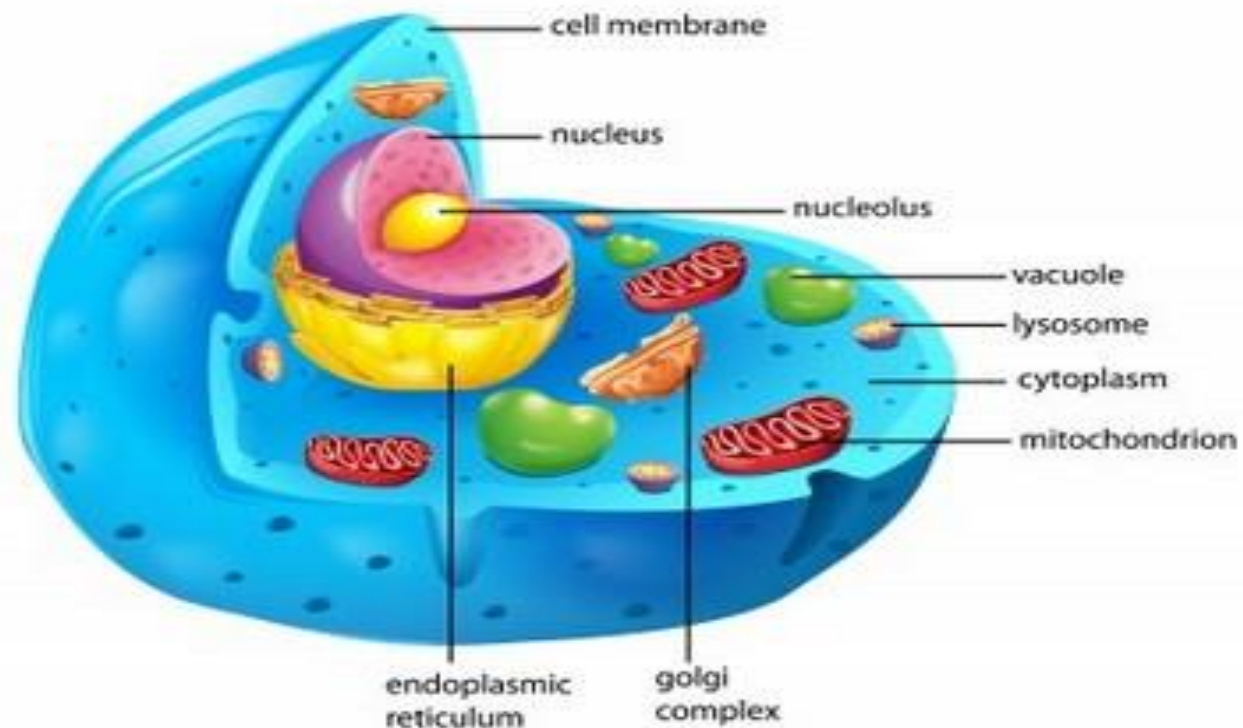
Animal cells and plant cells are different



Animal Cells

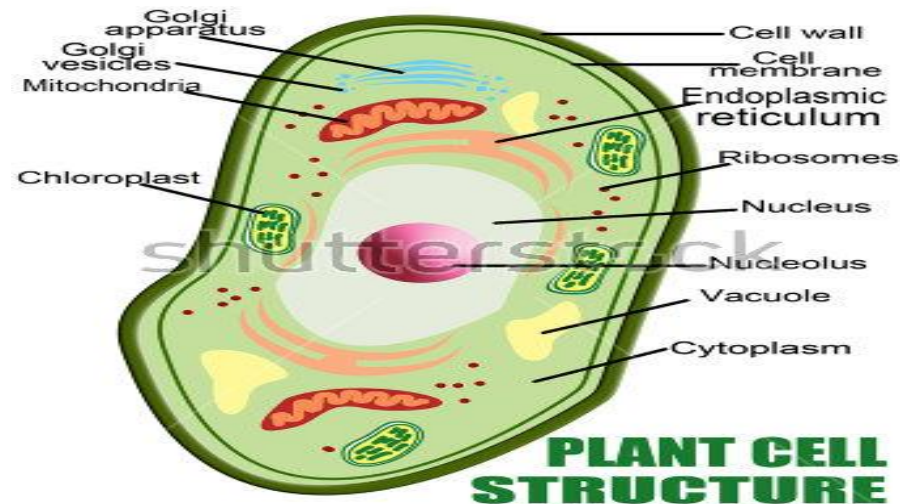
All animal cells are multicellular. They are eukaryotic cells. Animal cells are surrounded by plasma membrane and they contain the nucleus and organelles that are membrane bound.

Anatomy of an Animal Cell



Plant Cells

Plant cells collect sunlight and use it to convert water and carbon dioxide into sugar. This process is called Photosynthesis.



Plant Cells

Plant cells are similar to animal cells.

They have a nucleus, a cell membrane, cytoplasm and mitochondria and other organelles

In addition they have some parts that animal cells do not have:

- **Cell wall:** a thick, rigid layer which provides support and protection
- **Big vacuoles:** sacs which contain water and storage substances
- **Chloroplasts:** where photosynthesis takes place

The prokaryotic cells

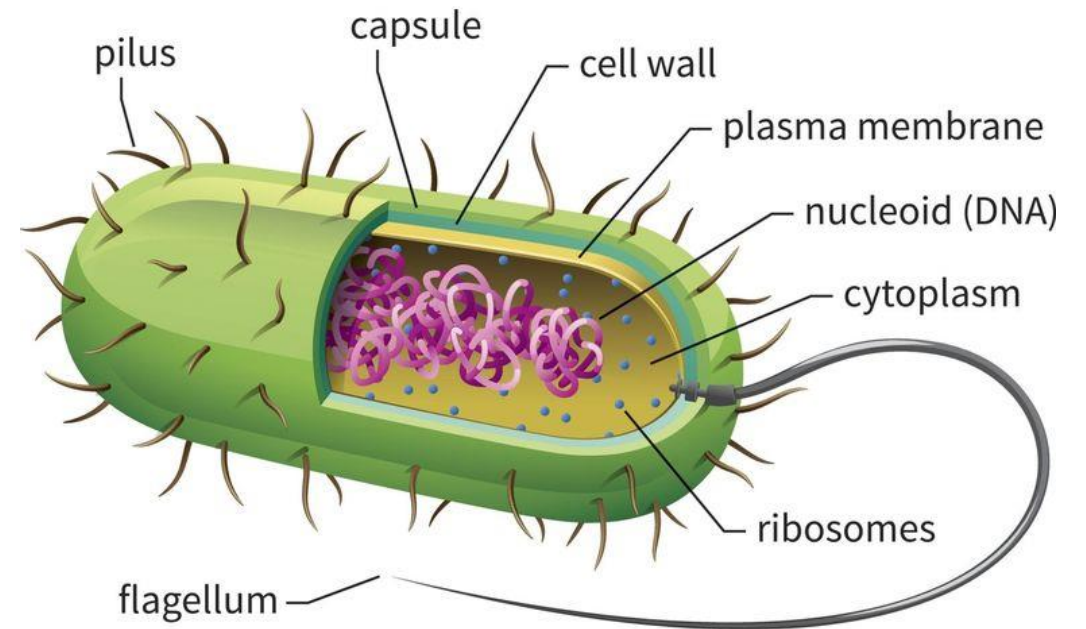
This type of cell is only in bacteria

There is no nucleus and they have one long molecule of DNA in the cytoplasm.

There are no organelles in its cytoplasm, apart from ribosomes

They have a rigid outer cover, called the cell wall (different from the vegetal cell wall)

Some species have flagella to move.



The eukaryotic cells

A eukaryote is any organism whose cells have a nucleus and other organelles enclosed within membranes. Eukaryotic cells are much larger than those of prokaryotes. They have a variety of internal membrane-bound structures, called organelles. Eukaryotic DNA is divided into several linear bundles called chromosomes, which are separated by a microtubular spindle during nuclear division.

