



The function of mitochondria is the site for respiration, reactions which yield energy for the cell.

5. NUCLEUS

This is a round or oval organelle suspended in the cytoplasm. The nucleus is made up of nucleolus and fluid called nucleoplasm. It's surrounded by a membrane called the nuclear membrane.

6. CYTOPLASM

This is jelly like substance made up of water and dissolved chemical substances. The cytoplasm is the site for many chemical reactions in the cell. Cell organelles such as the vacuoles, nucleus and mitochondria are suspended in the cytoplasm. The movement of cytoplasm is known as cytoplasmic stream.

7. RIBOSOMES

This is the site of protein synthesis.

SIMILARITIES BETWEEN PLANT AND ANIMAL CELL

- Both have cell membrane.
- Both have cytoplasm.
- Both have nucleus.
- Both have vacuoles, ribosomes and mitochondria.

Differences between plant cell and animal cell

Plant cell

Has a cell wall

Has chloroplast

Have definite shape

Has a large permanent vacuole

They are normally large

Nucleus is peripherally located

They store oil, proteins, starch

Animal cell

No cell wall

Lacks chloroplast

Have no definite shape

Has small temporary vacuole

They are usually smaller

Nucleus is centrally located

They store fats and glycogen

CELL DIFFERENTIATION

- Cells have different functions and features that make them better suited to carry out these functions. This is called cell differentiation.
- Most living things are made up of many structurally and physiologically adapted different kinds of cells.
- These cells perform specific function and this is referred to as cell specialization.
- Cell differentiation refers to the way cells are adapted so that they can carry out function efficiently.

TISSUE

A tissue is a group of similar cells performing the same function. Basically there are two types of tissue.

Animal tissue e.g. epithelial tissue, muscular tissue, blood tissue, nerve tissue, skin tissue.

Plant tissue e.g. meristematic tissue, parenchyma tissue, collenchyma tissue, vascular tissue (xylem tissue, phloem tissue).