



Cell membrane: Protect the cell from its surroundings and controls the exchange of substances with the outside.

Nucleus. It stores the cell's hereditary material, or DNA, and it coordinates the cell's activities, which **include** growth, intermediary metabolism, protein synthesis, and reproduction.

Cytoplasm. Contents of the cell located between the plasma membrane and the nuclear membrane. Comprises a liquid medium or cytosol, comprising water and soluble substances, where the present other organelles.

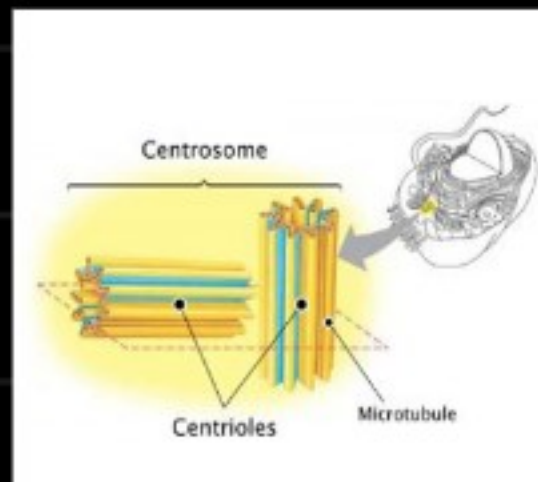
Mitochondria: Called as power house of the cells. Responsible for breakdown of sugar molecules for releasing ATP (the energy currency of cells). It also regulate cellular metabolism.

Endoplasmic reticulum: Structural frame work. Production and processing of protein (RER), Synthesis of carbohydrates and lipid (SER).

Ribosome: Ribosomes are a cell structure that makes protein. Protein is needed for many cell functions such as repairing damage or directing chemical processes. Ribosomes can be found floating within the cytoplasm or attached to the endoplasmic reticulum.

Golgi apparatus: A number of proteins synthesized by ribosomes on the endoplasmic reticulum are modified in the cisternae of the golgi apparatus before they are released from its *trans* face. Golgi apparatus is the important site of formation of glycoproteins and glycolipids

Lysosomes: Contain lytic enzyme. Site for intracellular digestion and destruction of certain organelles at the time of development. Also called as suicidal sac.



Cytoskeleton mechanical support, motility, maintenance of the shape of the cell.

Centrosome and Centrioles: The centrioles form the basal body of cilia or flagella, and spindle fibres that give rise to spindle apparatus during cell division in animal cells