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Cytoplasm: It is a membrane, which protects the cell by keeping the cell organelles separate from each other. This helps to keep a cell in stable. Cytoplasm is the site, where many vital biochemical reactions take place.

Nucleus: They are the membrane bound organelles, which are found in all eukaryotic cells. It is the very important organelle of a cell as it controls the complete activity of a cell and also plays a vital role in reproduction.

Nuclear membrane: The bilayer membrane, which protects the nucleus by surrounding around it and acts as a barrier between the cell nucleus and other organs of a cell.

Nucleolus: It is an important membrane found inside the nucleus. It plays a vital role in the production of cell's ribosome.

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Chromosomes: It is made up of DNA and stored in the nucleus, which contains the instructions for traits and characteristics.

Endoplasmic reticulum: It helps in the movement of materials around the cell. It contains an enzyme that helps in building molecules and in manufacturing of proteins. The main function of this organelle is storage and secretion.

Ribosome: It plays a vital role in protein synthesis.

Mitochondria: They are double membrane, filamentous organelles, which play a vital role in generating and transforming the energy. Mitochondria play a vital role in various functions of the cell metabolisms including oxidative phosphorylation.

Golgi Bodies: It helps in the movement of materials within the cell.

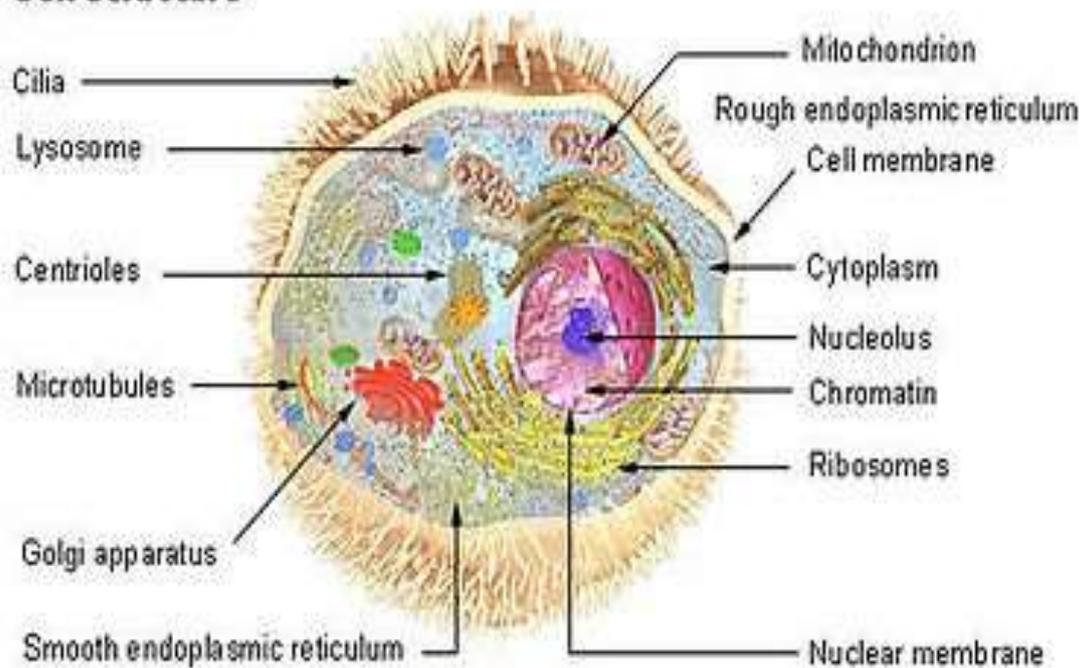
Lysosomes: It is helps in cell renewal and break down old cell parts.

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Vacuoles: It helps plants in maintaining its shape and it also stores water, food, wastes, etc.

Chloroplast: They are the site of photosynthesis, which are present in chlorophyll bacteria.

Cell Structure



Structure of a Prokaryotic Cell

Capsule: It is the slimy outer coating of the cell wall. It is composed of the polypeptide. The main function of the capsule is to protect the cell from getting dry and also helps in protecting cells from external pressures.

Cell wall: It is the structure, which provides the shape and protects the internal organelles of a cell. It is the middle layer, which is present in between the capsule and cell membrane.

Cell membrane: It is the inner structure, which plays a role in regulating the entry and exits of materials in the cell. It acts a permeable membrane and separates the cell from its environment.

Cytoplasm: It is the liquid membrane, It plays a vital role in storing all types of materials.

Nucleiod: It is the cytoplasm region containing genetic material. The DNA of a prokaryotic organism is one big loop or a circular, which is located inside the nucleiod. It plays a vital role in cell division.

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Ribosome: It comprises of both RNA and proteins. It helps in protein synthesis in the cell. They are smallest membrane present inside the cytoplasm.

Plasmids: They are smallest membrane of a cell with double stranded DNA.

Pilli: It is the thinnest membrane of a prokaryotic cell. They are composed of protein complex called pilin and are mainly involved in sticking to the objects especially during sexual reproduction.

Flagella: It is the helical shaped membrane, and plays a vital role in motility of an organism from one place to another place. It also helps in swimming.

