PLANT CELL STRUCTURE

The cell membrane, nucleus, cytoplasm, and everything in between.

Nucleus

Acts as the control center of the cell, housing DNA and coordinating activities like growth, metabolism, and reproduction.

Ribosomes

Consists of RNA and proteins. Sites of protein synthesis.

Cell wall

It is the cell's outermost protecting covering. Provides structural support, protection, and shape to the cell.

Cell membrane

Found inside the cell wall. It controls the movement of substances in and out of the cell, maintaining homeostasis.

Endoplasmic reticulum (ER)

It is a network of branching tubules and flattened sacs scattered in the cytoplasm. It provide mechanical support to the cell.

Central vacuole

A large central vacuole filled with cell sap. Maintains turgor pressure, stores nutrients and waste products, and helps in cell growth.

Rough Endoplasmic reticulum

It has ribosomes attached to it and it creates protein.

Cytoplasm

A jelly-like substance that fills the cell. It supports and suspends organelles and cellular molecules.

Smooth Endoplasmic reticulum

It has no ribosomes attached and it synthesize lipid and detoxify chemicals.

Amyloplast

It serves as starch storage for plants.

Mitochondria

Mitochondria are double membrane bound organelle that plays a major role in energy generation. It produce cellular energy in the form of ATP. Hence, they are called 'power houses' of the cell.

Druse crystal

It stores excess calcium, called calcium oxalate, in plants. High amounts of this calcium makes a plant poisonous to humans.

Golgi apparatus

It is stacks of membrane-bound vesicles. It modifies, sorts, and packages proteins and lipids for storage or transport out of the cell.

Chloroplast

Contains chlorophyll and is surrounded by a double membrane. Site of photosynthesis, converting light energy into chemical energy (glucose).

ADHYAYANTA LIVEWORKSHEETS