

Q) What is the difference between plant and bacterial cell?

Difference between plant & Bacterial cell.

PLANT CELL:

1) Definition

~~PLANT~~
BACTERIAL CELL:

A plant cell is the structural and functional unit of a plant.

A bacterial cell is the body of a single celled, prokaryotic organism called Bacteria.

2) Size

Plant cells are large. The average size of a plant cell is 10-100 μm in diameter.

The bacterial cell is very small. It is about 0.5-5.0 μm in diameter.

3) Cell Type

Plant cell is a eukaryotic cell.

Bacterial cell is a prokaryotic cell.

4) Nucleus

Plant cell has a well define nucleus which stores the genetic material.

Bacterial cell lack membrane bounded nucleus. Its genetic material lies suspended in the cytoplasm.

5) Shape

Plant cells are typically rectangular or cubical in shape.

Bacterial cells are of different shapes such as spherical (cocci), spiral (spirilla), comma (vibrio) etc.

6) Cell wall

Plant cells have rigid cell walls that surround the plasma membrane.

Bacterial cell wall is surrounding the inner components of cell.

7) Ribosome

Plant cell consists of large 80S ribosomes.

Bacterial cell consists of small 70S ribosomes.

8) Lysosomes

Lysosomes are small and ten in plant cells.

Lysosomes are absent in bacterial cells.

9) Nutrition

Plants make their own food by photosynthesis and are called "Autotrophs".

Bacteria can obtain energy from decomposition of dead organisms or by photosynthesis and are called both "autotrophs and heterotrophs".

10) Reproduction

Sexual reproduction occurs by fusion of gametes.

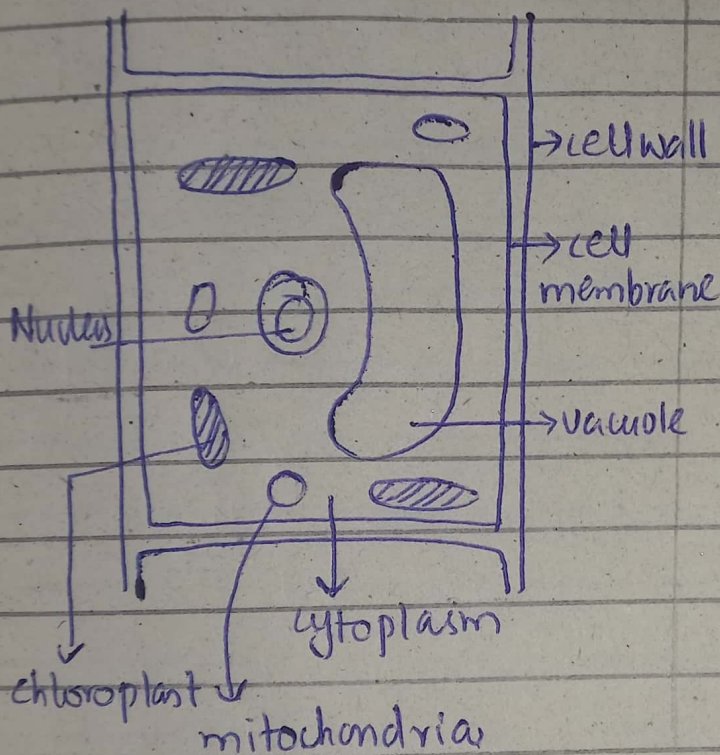
Sexual reproduction of bacterial cell occurs by conjugation.

1) Types

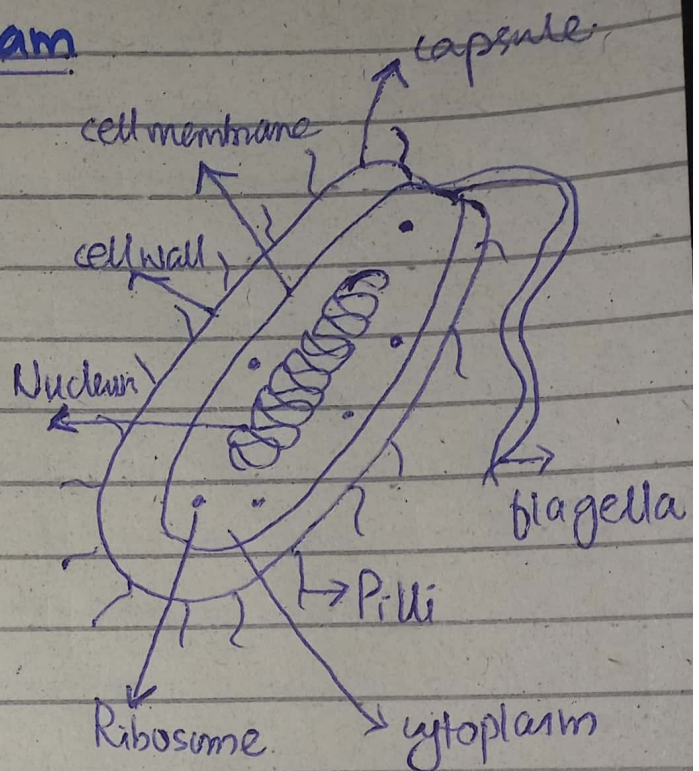
The types of plant cells are parenchyma, collenchyma and sclerenchyma.

The types of bacterial cells are gram +ve bacteria and gram -ve bacteria.

1a) Diagram



Structure of Plant cell.



Structure of Bacterial cell.