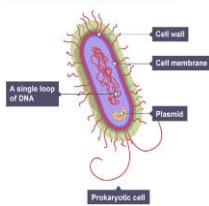


Rationale

Cells are the most basic form of life. In this unit we explore how differences between types of cells enables them to carry out specific functions within the organism. These are known as specialised cells. For an organism to grow, cells must divide two new identical cells. Cells are grouped into tissues, organs, organ systems and organisms. You will also learn about diffusion.

Diagrams**Keywords****Definitions**

Bacterial cells are called prokaryotic cells.

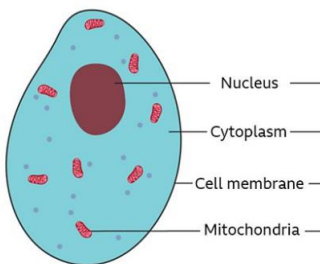


Eukaryotic

Cells that have a nucleus, like animal and plant cells.

Prokaryotic

Cells that don't have a nucleus, like bacteria.

Animal cell

Nucleus

The control centre of the cell, which contains DNA.

Cell Membrane

The outer barrier of the cell, which allows substances to enter and leave the cell.

Cytoplasm

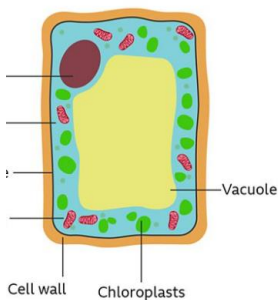
A jelly-like substance where chemical reactions occur.

Mitochondria

Where energy is released inside the cell.

Ribosome

Where proteins are made.

Plant cell

Vacuole

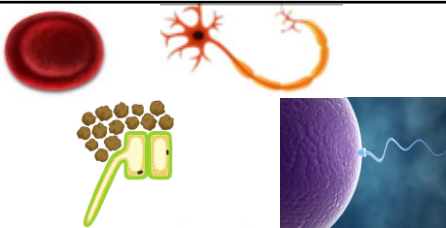
Contains sugar and salt solutions, it helps to give the cell support.

Chloroplast

Contains chlorophyll which enables plants to photosynthesise.

Cell wall

Outer layer of a plant cell, it provides structure and support.



Differentiation

Changes occurring to cells to make them specialised.

Specialised

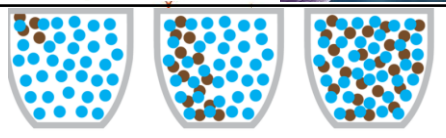
Cells that are adapted to enable them to carry out specific functions.

Flagellum

A tail-like structure.

Cilia

Tiny hair-like structures.



Diffusion

Movement of a substance from a high to a low concentration.

Concentration gradient

When particles move from a high to a low concentration.

High

Low

Magnification= eyepiece x objective

Microscope

A piece of equipment that magnifies objects.

Magnification
Resolution

The process of enlarging an object.
How clearly you can see an image.