STD: 8 BIOLOGY (English Medium)

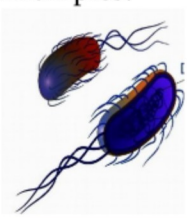
Unit -1 Life's Mysteries in Little Chambers

Illustrated Notes and work sheet based on the Kite Victers Class-3

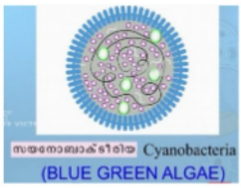
Prokaryotes

Prokaryotes are organisms with out a nucleus in their cell.

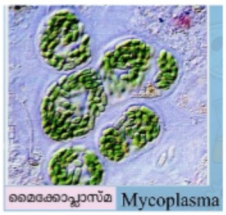
Examples:-



Bacteria



Cyanobacteria

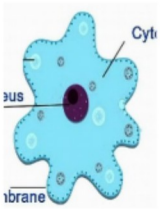


Mycoplasma

Eukaryotes

Eukaryotes are organisms with a well defined nucleus in their cell.

Examples:-



Amoeba

Animals & Plants

Plastids

Three Kinds of Plastids:

1. Chromoplast - Impart colours to flowers and fruits.

Xanthophyll (yellow), carotene (yellowish orange), anthocyanin (red, purple) etc., are certain pigments in the chromoplasts.

2. Chloroplast - Performs photosynthesis, Gives green colour to plant parts

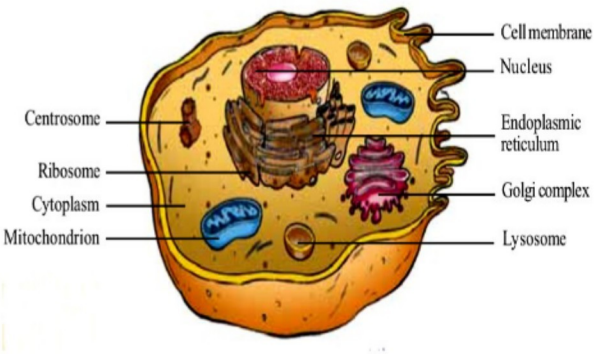
Pigment seen in the chloroplast: Chlorophyll

3. Leucoplast - (no specific colour) Seen abundant in storage cells.

The secret behind the change in the colour and taste of fruits

As fruits ripen, chloroplasts change to chromoplasts, to change its green colour. Starch in the fruits is converted to sugar, to change its taste.

PLANT CELL and ANIMAL CELL



Plant cell

Cell wall | Plasma membrane | Protoplasm

Protoplasm → Cytoplasm | Nucleus

Cell organells

- Mitochondrion
- Endoplasmic reticulum
- Ribosome
- Golgi complex
- Vacuole
- Plastids

Animal cell

Plasma membrane | Protoplasm

Protoplasm → Cytoplasm | Nucleus

Cell organells

* Mitochondrion
* Endoplasmic reticulum
* Ribosome
* Golgi complex
* Centrosome
* Lysosome

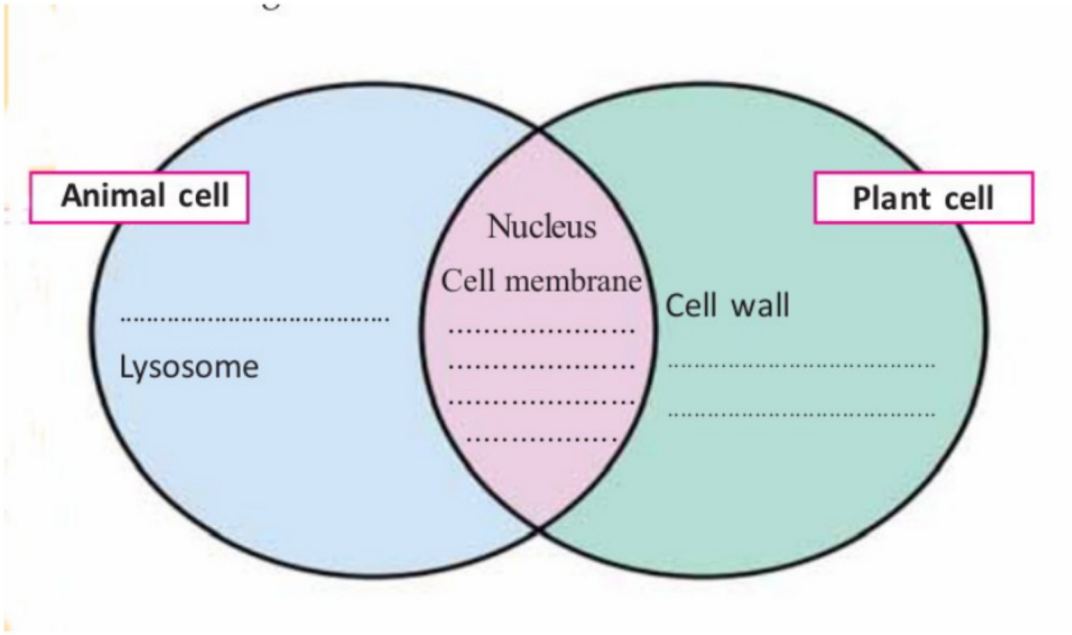
PLANT CELL	ANIMAL CELL
- Cellwall is present	- No cellwall
- Vacuole and Plastids present	- No Vacuole and Plastids
- No Centrosome and Lysosome	- Centrosome and Lysosome seen

Centrosome : Centrosome Contains the centrioles, that helps in cell division.

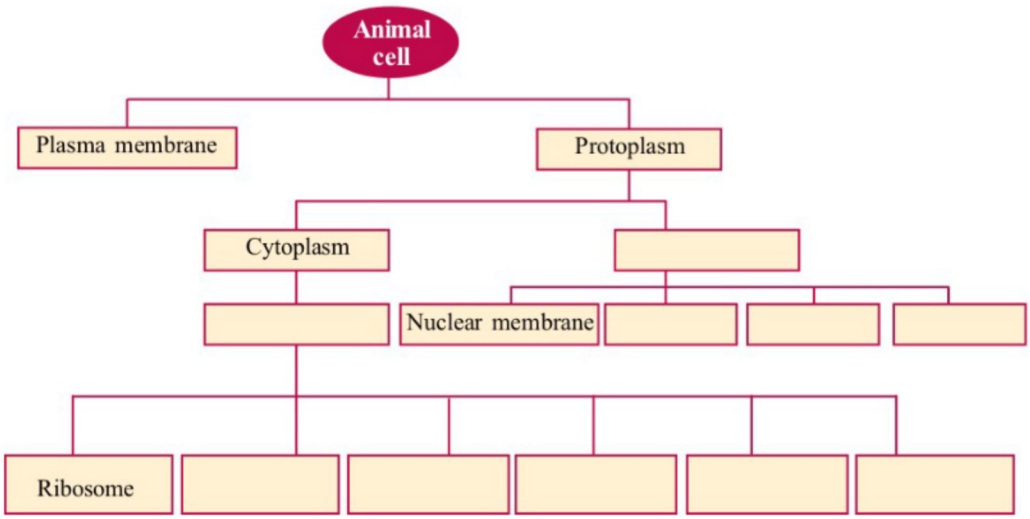
Lysosome: Lysosome Contains digestive enzymes, that destroy foreign substances entered in to the cell.

WORK SHEET

1. Compare the plant cell and the animal cell and complete the illustration given below.

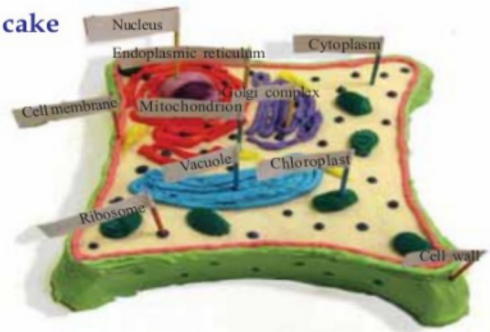


2. Complete the concept map related to the structure of animal cells.



Extended activity

1. **Cell cake**



Construct the model of a cell using Cereals, vegetables, woollen threads, beads etc.....