



Cells & Life



TERM 2

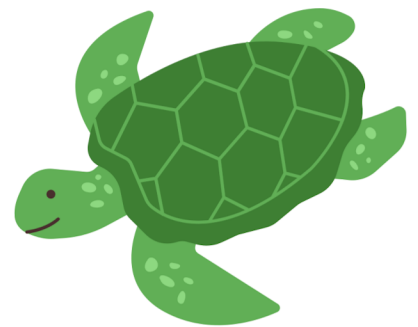
Grade 6



Science



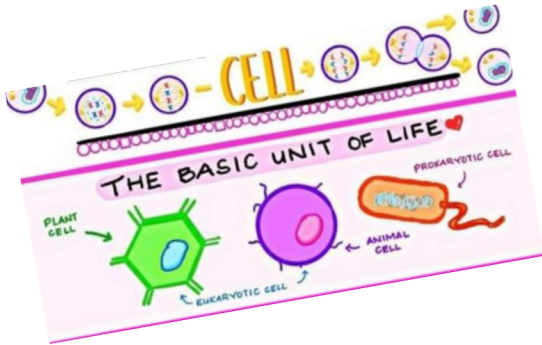
Summary



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Lesson 1

Exploring life



CELL

The smallest unit that can live on its own and that makes up all living organisms and the tissues of the body.

THE CELL THEORY

① All living things are made up of cells

② Cells are the basic structural unit of all living organisms.

③ All cells come from preexisting cells.

Cell theory

The three scientists who discovered cell theory: Theodor Schwann, Schleiden, and Rudolf Virchow.

Microscope

It is used to magnify objects.



light microscope

- Uses light and lenses to enlarge images
- Can enlarge an image upto 1500 times

Electron microscope

- passes electrons in the objects surface. They are of two types
- Transmission Electron microscope(TEM)-Help to observe internal structure of the cell.
- Scanning Electron microscope(SEM)-Help to observe the surface of the cell.

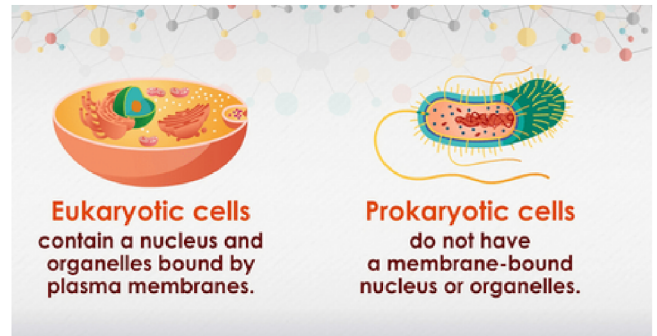


7 Characteristics of Life

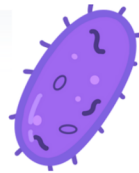
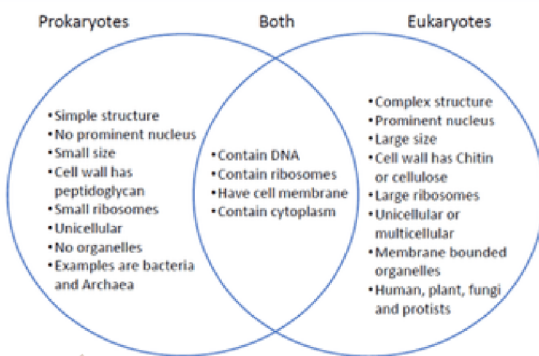


1. Living things are composed of cells
2. Living things have different levels of organization
3. Living things use energy
4. Living things respond to the environment
5. Living things grow and develop
6. Living things reproduce
7. Living things adapt to the environment

Prokaryotes and Eukaryotes



Venn Diagram of Prokaryotes and Eukaryotes



Domains of classification.

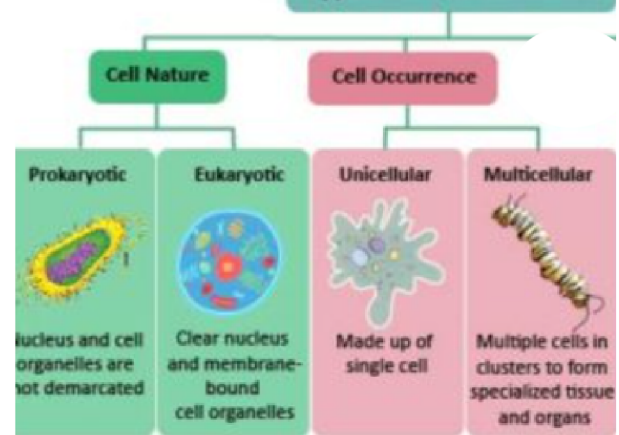
A system of classification based on **3 domains and 6 kingdoms** was proposed by **Carl Woese in 1990**. In this system, living organisms are divided into three domains, each of which has six kingdoms.

Three Domains consist of

- Bacteria
- Archaea
- Eukarya



Types of Classification



Five Kingdom Classification

*Given by Robert Whittaker

