



Diversity in Living Organisms - Part 1

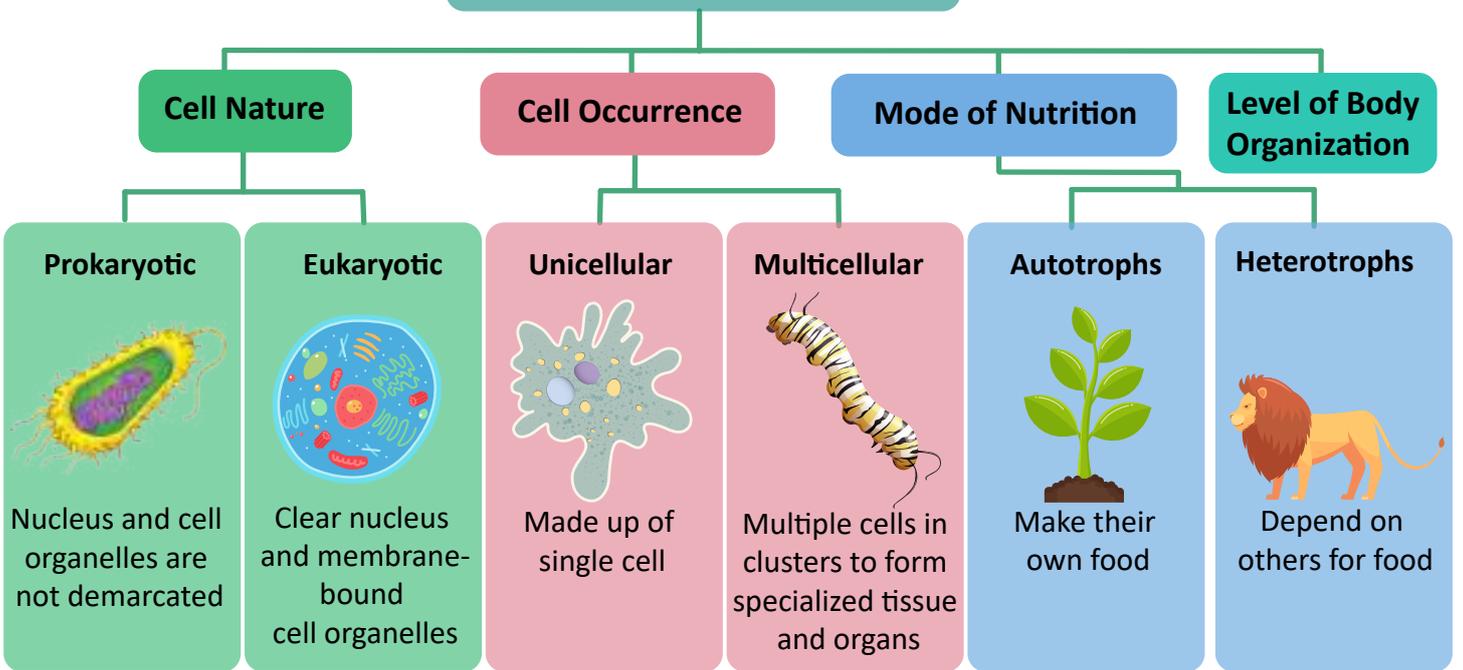
Classification of Organisms

Arranging organism into groups based on similarities and differences.

Advantages

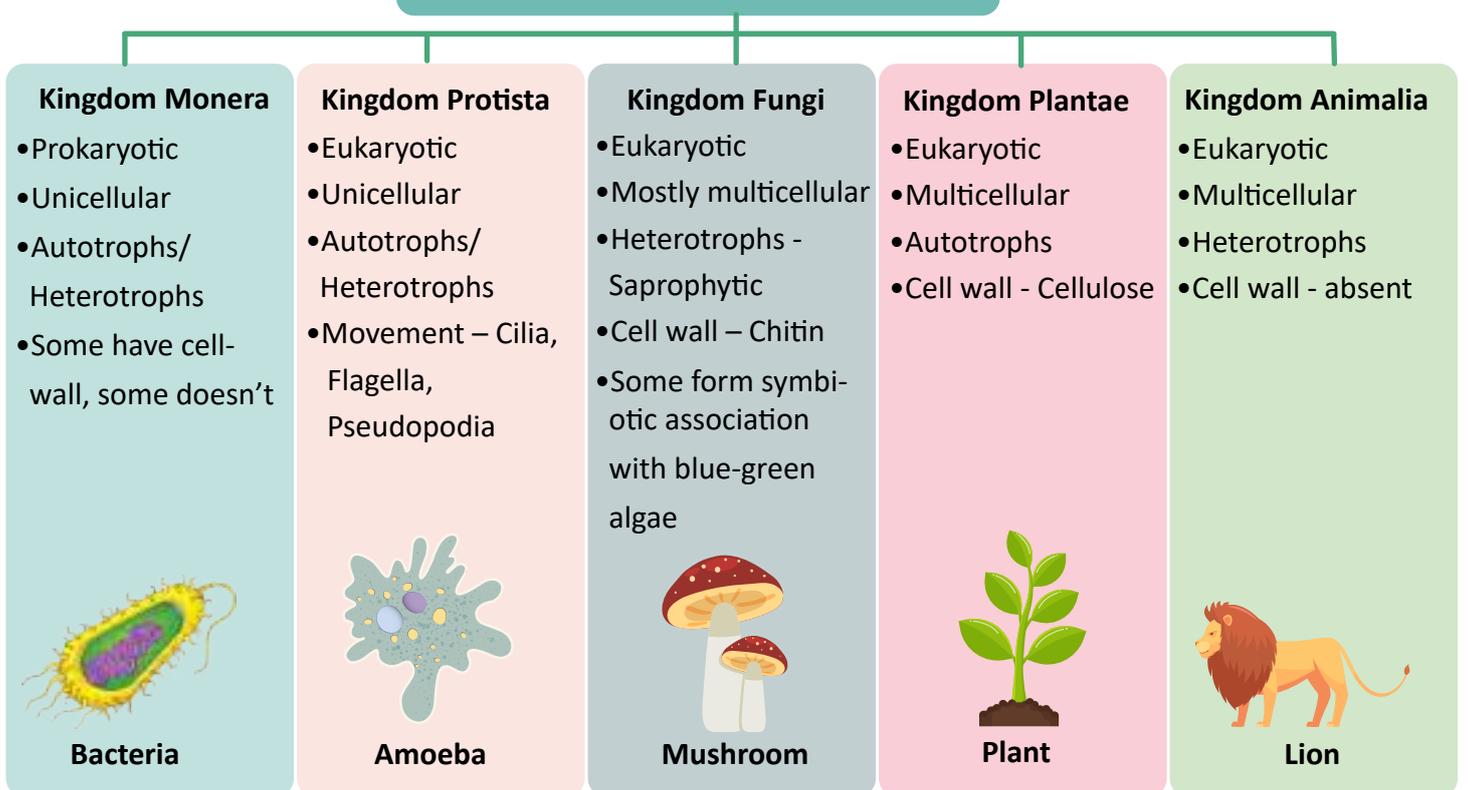
- Identify organisms
- Finds interrelationship between organisms
- Makes studying organisms easy

Types of Classification



Five Kingdom Classification

*Given by Robert Whittaker



Binomial Nomenclature

*Introduced by Carl Linnaeus



Rules to follow while naming organism through binomial nomenclature :

1. Names are written in *italicized* form.
2. First letter of genus should be capital.
3. First letter of species should be in lowercase.
4. If scientific texts are handwritten, they should be underlined.



Examples:



Panthera tigris



Mangifera indica



Diversity in Living Organisms - Part 2

Kingdom Plantae

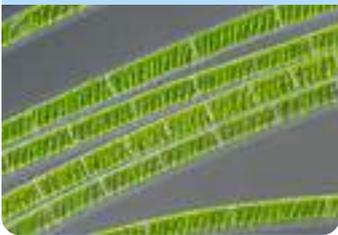
Cryptogamae

Thallophyta

(Commonly called Algae)

- Plant not differentiated into roots, stem and leaves
- Aquatic

Spirogyra



Bryophyta

- Differentiated body (stem, leaf-like, root-like structures)
- Special tissue for conduction of water absent
- Terrestrial

Riccia



Pteridophyta

- Differentiated body (Roots, stem, leaves)
- Vascular plants – have special tissue to conduct water
- Spores – naked embryos
- Inconspicuous reproductive organ

Marsilea



Phanerogamae

- Seed-bearing plants
- Differentiated body (Roots, stem, leaves)
- Well-developed vascular system
- Differentiated reproductive system

Gymnosperms

- Naked seeds (no fruit formation)
- Perennial, evergreen, woody
- Reproductive organ - Cones/Strobilus

Pinus



Angiosperms

- Flowering plants, seeds inside fruit
- Annual/Biennial/Perennial
- Double fertilization occurs

Mustard



Monocotyledonous Plants

- Single cotyledon
- Vascular bundles arrangement – complex



Dicotyledonous Plants

- Two cotyledons
- Vascular bundles arranged in a ring

