



Priya's Learning Centre

Animalia





The animals are classified into ten groups based on the body design, germinal layers, presence of notochord, etc. The ten groups are:

1. Porifera
2. Coelenterata
3. Platyhelminthes
4. Nematoda
5. Annelida
6. Arthropoda
7. Mollusca
8. Echinodermata
9. Protochordata
10. Vertebrata

Porifera:

- They are non-motile animals
- They have holes or pores all over their bodies
- Pores help in circulating water throughout the body
- Their bodies are covered with hard outside layer or skeleton
- They are mainly found in marine habitats.

- Eg: Spongilla, Sycon

Coelenterata:

- They have two layers of cells
- They live in water
- They have a cavity in the body
- They either live in colonies or in solitary
- Eg: Jellyfish, Hydra

Platyhelminthes:

- Their body is bilaterally symmetrical
- They have three layers of cells, which provides inside and outside body linings, that's why they are known as "Triploblastic"
- Their body is flattened dorsiventrally (from top to bottom)
- They are either free-living or parasites
- Eg: Planarians, Liverflukes

Nematoda:

- Their body is bilaterally symmetrical
- They are also triploblastic
- They have cylindrical body
- A sort of cavity or pseudocoelom is present on body
- Eg: Ascaris, Roundworm

Annelida:

- They are also bilaterally symmetrical and triploblastic
- They have extensive organ differentiation in segmental fashion
- They are found in fresh water, marine water and land
- Eg: Leeches, Earthworms

Arthropoda:

- They are the largest group of animals.
- They are bilaterally symmetrical and segmented
- They have jointed legs
- They have open circulatory system
- Eg: Prawns, Butterflies

Mollusca:

- They have bilateral symmetry
- They have an open circulatory system and kidney-like organs for excretion
- They have a foot that is used for movement
- Eg: Snail, Mussels

Echinodermata:

- They are spiny skinned organisms
- They are triploblastic and have a coelomic cavity
- They have water driven tube system for movement
- They have hard calcium carbonate structures for skeletons
- Eg: Starfish, Urchins

Protochordata:

- They are bilaterally symmetrical and triploblastic
- They possess notochord which is a long rod-like support structure that runs along the back of the animal supporting the nervous tissue from the gut
- They are marine animals
- Eg: Balanoglossus, Herdmania

Vertebrata:

- They have proper vertebral column and internal skeleton
- They are bilaterally symmetrical, triploblastic, coelomic and segmented.
- They have a complex differentiation of body tissues and organs
- They are further grouped into five groups:
 - **Pisces:**
 - They are fish
 - Their skin is covered with scales
 - They have streamlined bodies
 - They are cold-blooded and their hearts have two chambers
 - They use their muscular tails for movement
 - Eg: Tuna, Shark
 - **Amphibia:**
 - They can live on land as well as in water
 - They have a three chambered heart
 - They have mucus glands in skin
 - Eg: Frogs, Salamander