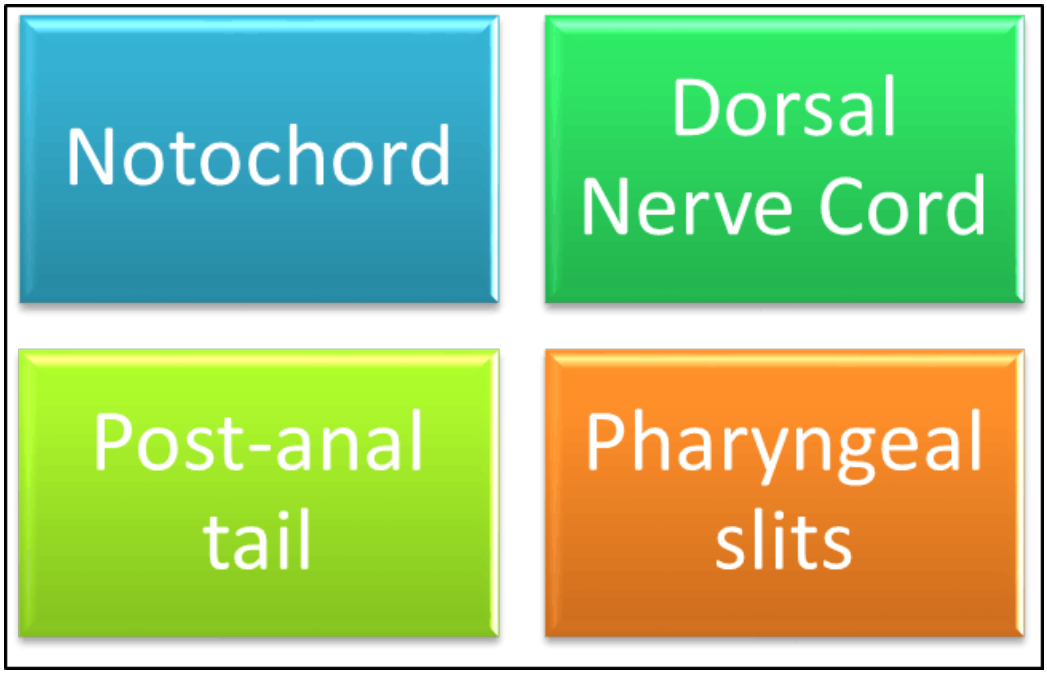
Phylum Chordata: Introduction to Phylum Chordata, Features of Chordates

Introduction to Phylum Chordata

- Phylum Chordata possess a bilaterally symmetrical body and presence of notochord is most distinguishing character that all animals belonging to this phylum.
- It belongs to the Kingdom Animalia and includes all the vertebrates, i.e.. , animals with a backbone along with several invertebrates, i.e.. , organisms without a backbone.

Features of Chordates



Notochord

- Its main function is to support the nerve cord.

- The vertebral column replaces the notochord in vertebrate animals.
- Notochord further consists of a longitudinal rod that is made of cartilage and runs between the nerve cord and the digestive tract.

Dorsal Nerve Cord

A bundle of nerve fiber which connects the brain to the muscles and other organs.

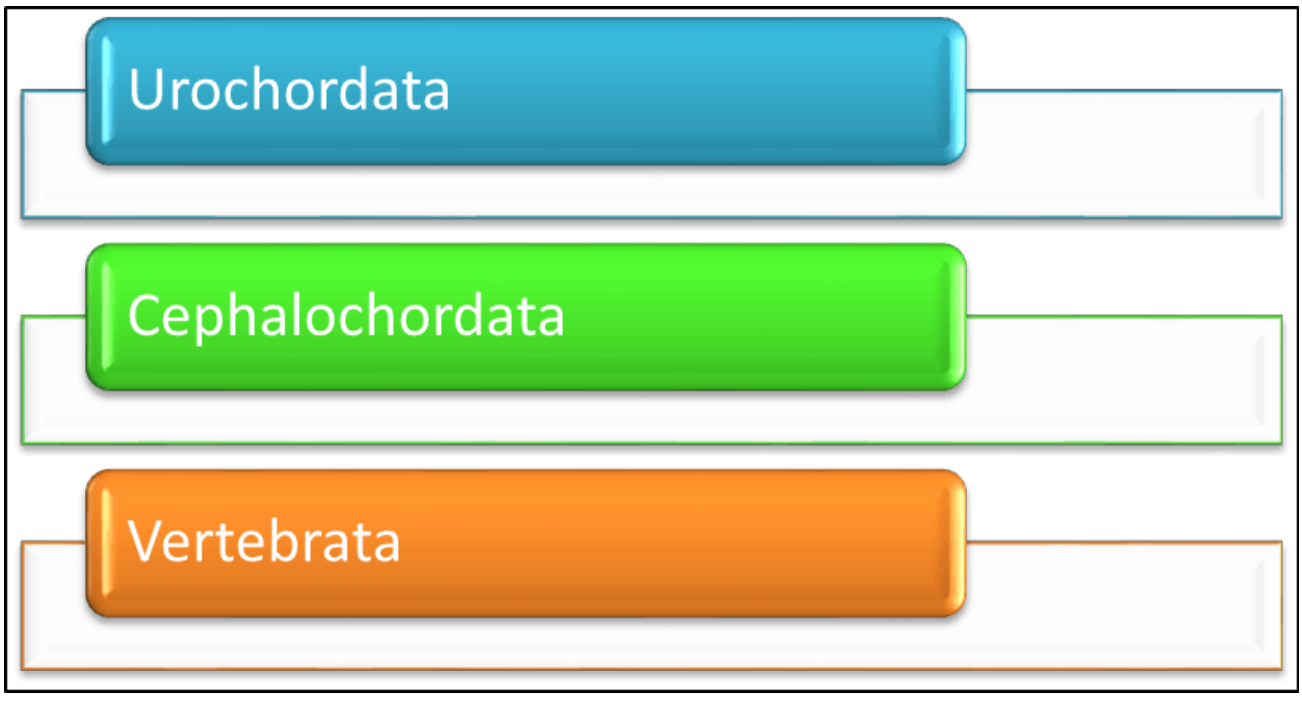
Post-Anal Tail

The tail has skeletal muscles in some chordates which help in locomotion.

Pharyngeal Slits

- These are the openings connecting the mouth and the throat.
- The entry of water through the mouth is allowed without entering the digestive system.
- This is the third largest phylum in the subphylum Vertebrata.

Division of Phylum Chordata



Urochordata

- It is also known as Tunicata because the body of an adult is enclosed within a tunic made up of cellulose like substance known as tunicin.
- A dorsal ganglion in adults replaces the nerve cord present in larva.
- The larva can move and undergoes metamorphosis.
- For e. g. Ascidia, Salpa, Doliolum.

Cephalochordata

- The tail is present throughout the life.
- Progressive metamorphosis is shown.
- The notochord is found throughout life.
- For e. g. Lancelets possess the notochord and nerve cord throughout their life.

Vertebrata

- These contain advanced chordates and have cranium around the brain.
- A high degree of cephalization is observed.
- They have a well-developed coelom (the principal body cavity in most animals) .
- The alimentary canal is complete.
- For e. g. in Humans.