

## Major phyla included in kingdom Animalia Part 2

### Part: - II

- **Phylum Annelida (Includes earthworms):** They are triploblastic and contain true coelom. Body is bilaterally symmetrical and has well developed brain, ventral nerve cord, dorsal and ventral blood vessels. Sexes united (in earthworm) or separate (in Nereis). Excretory organs called nephridia. Examples: Nereis, sea mouse, earthworm, leech, etc.

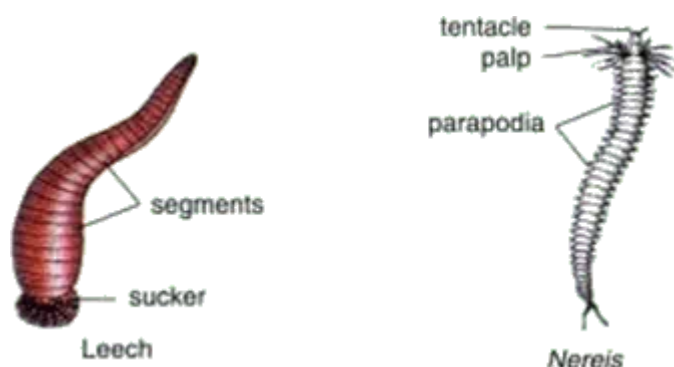


Image Showing Example of Phylum Annelida.

- **Phylum Arthropoda (includes Crab, scorpion, insect, spiders etc.):** They are triploblastic animals and body cavity is reduced and filled with blood, thus called haemocoel. Body is segmented and can be differentiated into two regions; cephalothorax (head and thorax together) and abdomen or three regions; head, thorax and abdomen. They have jointed appendages (legs). Examples: crab, butterfly, dragonfly, housefly, prawn, scorpion, spider, etc.

Arthropods are further divided into classes: Crustacea, Myriapoda, Insecta and Arachnida.

Arachnida	Crustacea	Myriapoda	Insecta
Cephalothorax with 2 chelicerae, 2 pedipalpi and 4 pairs of walking legs.	Body covered with dorsal covering called carapace.	Body with numerous segments.	Body divisible into head, thorax and abdomen.
Abdomen usually without legs.	Cephalothorax with 13 pairs of legs or appendages sexes usually separate.	Each segment bearing 1-2 pairs of legs terrestrial and air-breathing arthropods	Thorax 3 segmented with 3 pairs of each segment usually 2 pairs of wings on the last two thoracic segments.

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Eyes simple and sexes separate.  
Ex: scorpion

Eyes compound and sexes separate. Ex: Prawn

Eyes compound and sexes separate.  
Ex: Millipede

Eyes compound and sexes separate. Ex: cockroach

IMAGE SHOWING ARTHROPODS CLASSES.



*Palaemon* (Prawn)



*Musca* (Housefly)



*Pariplaneta* (Cockroach)



*Palamnaeus* (Scorpion)

Image Showing Example of Phylum Arthropoda.

- **Phylum Mollusca (includes conch, snails etc.):** Phylum Mollusca includes slugs, snails and octopus. Most of them live in water and have an outer shell and soft body. The fold of skin around the body is called mantle which secretes the outer shell. Body is unsegmented and has a muscular foot on their ventral surface for moving around. They have kidney like organs for excretion and have open circulatory system. Examples: Chiton, pila, octopus, etc.



Snail



*Pila*



*Chiton*



Squid



Octopus



*Unio*

Image Showing Example of Phylum Mollusca.

- **Phylum Echinodermata (Includes star fishes, brittle stars, sea urchins, sea cucumbers):** They are triploblastic free-living marine animals living in sand at bottom of the sea. Body is unsegmented and radial symmetry. Sexes usually separate. They have peculiar features of regeneration of lost parts. Examples: Starfish, Echinus (sea urchin), Antedon (sea lily) etc.

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**Sea urchin**



**Antedon**



**Holothuria**



**Starfish**

*Image Showing Example of Phylum Echinodermata.*