

Phylum: Mollusca General characteristics of

1. Molluscs are freeliving animals mostly in marine but few in fresh water & on land. Adult Molluscs like snails act as intermediate host for Trematoda parasites.

2. Body is soft, unsegmented, bilaterally symmetry, triploblastic and truly coelomated, mostly having a shell. Body is divided into 3 regions:

a) Head bears tentacle with eyes, mouth with buccal cavity and Labrum.

b) Visceral mass (Hump) includes other internal body systems. It is inside the shell.

c) Muscular ventral Foot, used for creeping over surface, plowing through mud or seizing prey.

Body is covered with a membrane called Mantle. The space between the mantle lining shell and the body is called Mantle cavity. Molluscs mostly possess a shell that is consisted of one or several segments of calcium carbonate secreted by mantle.

3. Digestive s. is complete; mouth, oesophagus, crop or stomach, intestine and anus.

4. Respiratory system is consisted of gills or it's via body wall (Mantle).

5. Circulatory system is an open one consisted of dorsal heart, vessels. Blood is colorless.

6. Excretory system is consisted of 1 - 6 kidneys.

7. Nervous system is consisted of pairs of ganglia.

8. Reproduction is sexual by female-male copulation with internal or external fertilization. Sexes are mostly separated and few are hermaphroditic, like, Helix sp. that its reproductive system is consisted of structure of ovary & testis, called Ovotestis.

9. Lifecycle is either indirect or direct growth; as follow.

A. Indirect growth: Egg → Trochophore larva → Adult.

B. Direct growth: Egg → Small mollusc like parents → Adult

Phylum: Mollusca is divided into FIVE Classes, are as follow:

1. **Class:** Polyplacophora, example; *Acanthochiton* sp.

2. **Class:** Scaphopoda, example; *Dentalium dentale*

3. **Class:** Gastropoda, example; snail, slugs, whelks, conch

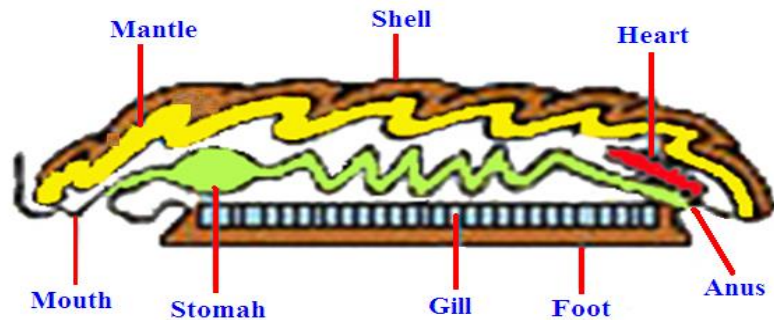
4. **Class:** Cephalopoda, example; squids, cuttlefishes, octopods, nautili

5. **Class:** Pelecypoda, example; clams, mussels, oysters, scallops

Kingdom: Animalia

Phylum: Mollusca**1. Class: Polyplacophora****Order: Chitonida****Family: Acanthochitonidae*****Acanthochiton* sp.**

1. All of the members live in marine.
2. Body is elongated, flattened ventrally and bilaterally symmetry. Head region is reduced and doesn't have eyes and tentacles. Foot is flat. Shell is consisted of 8 transverse calcareous plates.
3. Respiration is via many pairs of gills.
4. Lifecycle is indirect: Egg → Trochophore larva → Adult.

**2. Class: Scaphopoda****Order: Dentaliida****Family: Dentaliidae*****Dentalium dentale* (elephants'-tusk shells); Characteristics:**

1. All of the members Scaphopoda live in marine bottoms.
2. Body is depressed, bilaterally symmetry and 5 cm long, 5 mm wide. Head bears many tentacles. Foot is small and vermiform used for burrowing through mud. Shell is tubular in shape.
3. Respiration is via mantle and gills are not found.
4. Lifecycle is indirect: Egg → Trochophore larva → Adult.



Dentalium dentale
(Elephants'-tusk shell)

