

Lesson #74

Invertebrates: Mollusks

If you have ever been to the ocean, you have most likely seen a **mollusk** because most of the animals in this family live there. The mollusk group includes the clam, the slug, and the octopus, just to name a few. While it is true that most mollusks live in an aquatic environment, a few terrestrial mollusks do exist.

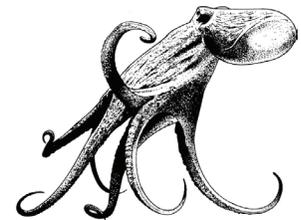
Some of the mollusk groups are named for the type of movement they display. For example, slugs and snails appear to crawl on their stomachs. Because of this, they are called **gastropods**. *Gastro-* means "stomach" and *-pod* refers to feet. The octopi and the squid move themselves through propulsion from their head, so they are called **cephalopods**. *Cephalo-* means "head."



The word mollusk means "soft body," and this is very true of the animals in this group. The soft tissue leads to a great deal of diversity in body shape. The soft tissue also leads to vulnerability, so some animals in this group, such as clams and snails, develop a shell to cover all or part of their bodies. This shell is called a **carapace**.

The body plan of the mollusk is very similar to that of the arthropod. Both have bilateral symmetry and a complete digestive system. With the exception of cephalopods, both arthropods and mollusks have an open circulatory system. Aquatic mollusks even have a respiratory system similar to the arthropod, with tubes called trachea carrying oxygen to the inside of the body. It is interesting to note that in terrestrial mollusks we see the first primitive lung.

The nervous system of all mollusks is extremely well-developed. In fact some mollusks have very accurate vision and sense of smell. The octopus, in particular, is known for being extremely smart. In fact, the octopus is known for being so smart that it will often get bored. At the National Aquarium in Washington D.C., the octopi are even given a Mr. Potato Head to play with!



1. The body plan of most mollusks is very similar to the body plan of what other group we have studied?

annelids

cnidarians

arthropods

2. Animals such as the octopus prove that mollusks have a very well-developed _____ system.

respiratory

nervous

circulatory

3. Match the type of symbiotic partnership to its description.

____ commensalism

A) beneficial to both host and partner

____ parasitism

B) harmful to the host

____ mutualism

C) does not help or harm the host

4. Both an arthropod's exoskeleton and a mollusk's carapace are designed to provide _____ for the animal.

5. In the desert, in order to avoid drying out or overheating, some animals will enter a sleep-like state, called _____.

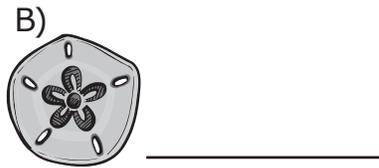
estivation

hibernation

desiccation

6. The annelids are the first invertebrates to develop a complete digestive system. This makes them (more / less) complex than the cnidarians.

7. Animals fall into three categories of symmetry. Label each picture below with the correct type of symmetry.



8. The jelly fish exhibits what type of symmetry?

radial

bilateral

asymmetrical

9. Which of the following is NOT a group of arthropods?

insect

cephalopod

crustacean

10. Which of the following is a type of cnidarian?

crab

tapeworm

jellyfish