**Ch 5 Marine Invertebrates**

**Study Questions**

What organisms are responsible for *Globigerina* ooze and what is the significance of these deposits?

Describe the ecological role of fungi in marine habitats.

How are sponges different from cnidarians?

Compare and contrast three of the bilateral wormlike phyla.

List and describe the developmental stages of molluscs.

Compare and contrast the annelids and arthropods.

What is the function and importance of the water vascular system of echinoderms?

Fungi are multicellular organisms with cell walls, just like plants. Fungi are multicellular heterotrophs, just like animals. Despite these similarities, fungi are classified in their own kingdom, separate from both plants and animals. Why is this done?

Molluscs have evolved many adaptations that have enabled them to be very successful in the marine environment. What are these adaptations?

Adult echinoderms are radially symmetrical as are the more primitive cnidarians. Develop a hypothesis that could explain radial symmetry in the echinoderms.

What characteristics do the invertebrate chordates share with the other chordate groups? How are they different?

Compare and contrast the following three phyla: Sipuncula, Echiurida, and Pogonophora.

From which group did the Arthropods evolve? Support your answer with available evidence.

What is convergent evolution? Give an example using one or more invertebrate groups.

Placozoans and members of phylum Labyrinthomorpha are both seemingly multicellular, yet only the placozoans are classified as animals. Why is this?

What survival advantages and disadvantages might an animal such as a sea anemone with radial body symmetry have over an animal with bilateral symmetry?

Many common marine animals have wormlike body forms. Why might this body shape be advantageous for mud or sand dwellers?

Why do you think many critical sense organs are concentrated in the head region of "higher" animals rather than in other parts of their bodies?