Worms and Mollusks
Section 3 Mollusks

Main Idea

Skim Section 3 of the chapter. Write two questions that come to mind from reading the headings and illustration captions.

1. Accept all reasonable responses.

2. ____________________________________________

Review Vocabulary

Use your book or dictionary to define herbivore.

herbivore
an organism that eats only plants

New Vocabulary

Use your book or dictionary to define each term.

mantle
a membrane that surrounds the internal organs of a mollusk;
in mollusks with shells, it secretes the shell

radula
in the mouth of many mollusks, the rasping, tonguelike organ with rows of teeth; used to drill, scrape, or tear up food

gills
a system of filamentous, respiratory projections on the mantle where oxygen and carbon dioxide are exchanged in the blood

open circulatory system
system in which blood moves through vessels into open spaces around the body organs

closed circulatory system
system in which blood moves through the body enclosed entirely in blood vessels

nephridia
organs that remove metabolic wastes from an animal’s body

siphon
a tube in octopuses and squids used to expel water taken into the mantle cavity
**Main Idea**

**Body Structure**

I found this information on page __________.  
SE, pp. 737–741  
RE, pp. 301–303

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**Details**

**Model** a snail and a squid. Label the body parts of each.

| Diagrams should resemble SE p. 738. Accept all reasonable responses. |

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**List** the snail and squid structures that differ.

- the snail’s foot, the squid’s tentacles, and the squid’s reduced internal shell

**Distinguish** two ways mollusks feed.

- **Radula:** a tonguelike organ with rows of teeth used to scrape, drill, and tear up food
- **Filter feeders:** draw in food from the water and strain it

**Compare** the way mollusks reproduce in water and on land.

| in water: eggs and sperm are released at the same time and fertilization is external | on land: many land mollusks are hermaphrodites and produce both sperm and eggs, and fertilization takes place within the animal |
**Main Idea**

Analyze the three classes of mollusks and the meaning of each class name. Provide at least three examples of each class.

**Details**

**Class** | **Mollusk Characteristics**
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Gastropoda | has a single shell and a large foot under the body
Bivalvia | has no radula; has two shells connected with a ligament, and a large, muscular foot for digging in the sand
Gastropoda | is brightly colored and has a layer of mucus covering its body; has a large foot under the body and no shell
Cephalopoda | has a radula and tentacles; has no shell; squirts ink at predators

**Connect**

Compare mollusks’ excretory structures with those of two or more groups that evolved earlier.

Accept all reasonable responses. Mollusks have nephridia, excretory structures that filter metabolic wastes from the coelom and remove the wastes from the body. Planarias have simpler structures called flame cells that move fluid along and eliminate water. A jellyfish has no excretory structures; water and salts move in and out of the body by osmosis.