

SECTION 27-1 REVIEW

FLATWORMS

VOCABULARY REVIEW Distinguish between the terms in each of the following pairs of terms.

- 1. pharynx, scolex _____

- 2. fluke, tapeworm _____

- 3. primary host, intermediate host _____

- 4. acoelomate, hermaphrodite _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. Flatworms are the simplest animals with
 - a. a backbone.
 - b. bilateral symmetry.
 - c. a coelom.
 - d. radial symmetry.
- _____ 2. The digestive cavity of most flatworms
 - a. has no opening to the outside.
 - b. has two openings.
 - c. has a single opening.
 - d. is connected to the outside by numerous pores.
- _____ 3. The eggs of the blood fluke *Schistosoma*
 - a. leave the primary host in feces or urine.
 - b. must be deposited on dry land to develop.
 - c. are produced by hermaphroditic adults.
 - d. are ingested by the intermediate host.
- _____ 4. The primary hosts of tapeworms are
 - a. cows.
 - b. snails.
 - c. pigs.
 - d. humans.
- _____ 5. In the tapeworm, both male and female reproductive organs are contained in each mature body segment called
 - a. proglottid.
 - b. scolex.
 - c. neck.
 - d. cyst.
- _____ 6. In free-living flatworms, what organ pumps food into the digestive cavity?
 - a. coelom
 - b. ganglia
 - c. pharynx
 - d. flame cell

SHORT ANSWER Answer the questions in the space provided.

1. How do planarians eliminate excess water from their bodies? _____

2. How do planarians and tapeworms differ in their ability to detect light? _____

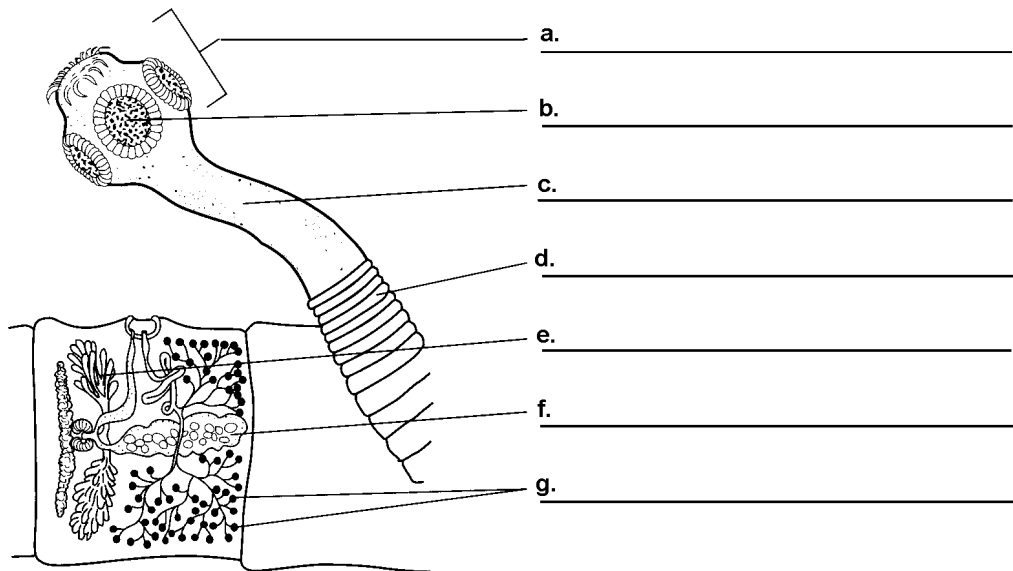
3. What are the primary host and the intermediate host of a blood fluke? _____

How does a blood fluke enter its primary host? _____

4. What stage of the beef tapeworm life cycle is spent inside a cyst? _____

5. Some people mistakenly believe that all organisms are perfectly adapted to their environments. What aspect of blood fluke reproduction suggests that these flatworms are not perfectly adapted to the environment inside their human hosts? _____

STRUCTURES AND FUNCTIONS Identify the structures labeled *a - g* in the diagram of a tapeworm shown below. Use the following terms: ovary, testes, uterus, scolex, sucker, neck, and proglottid.



SECTION 27-2 REVIEW

ROUNDWORMS

VOCABULARY REVIEW Define the following terms.

- 1. pseudocoelom _____

- 2. anus _____

- 3. trichinosis _____

- 4. elephantiasis _____

- 5. *Ascaris* _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. Pseudocoelomates have a fluid-filled body cavity that is
 - a. partially surrounded by ectoderm.
 - b. partially surrounded by mesoderm.
 - c. completely surrounded by mesoderm.
 - d. completely surrounded by endoderm.
- _____ 2. The roundworm digestive tract
 - a. has no opening.
 - b. has a mouth only.
 - c. has a mouth and anus.
 - d. is absent in parasitic roundworms
- _____ 3. *Ascaris* eggs enter the body of a human host when the
 - a. host ingests contaminated food or water.
 - b. eggs attach to the bare sole of a human foot.
 - c. eggs are inhaled as spores.
 - d. cysts rupture inside uncooked meat.
- _____ 4. Hookworms normally enter a human
 - a. after they are ingested as cysts in contaminated meat.
 - b. by attaching to the sole of a foot and boring directly through the skin.
 - c. by entering the host's anus and migrating to the intestine.
 - d. after an infected mosquito has bitten him or her.

SHORT ANSWER Answer the questions in the space provided.

1. Most roundworms that parasitize the digestive tract live in the small intestine, which is close to the stomach. What is the adaptive advantage of living in the small intestine for a worm that does not feed directly on its host's tissues? _____

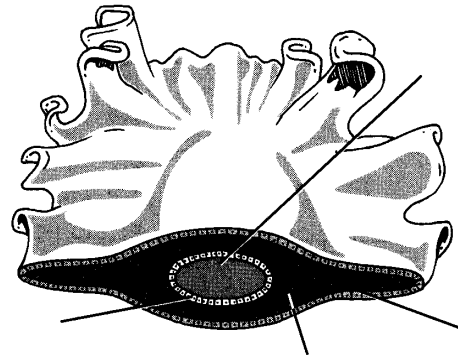
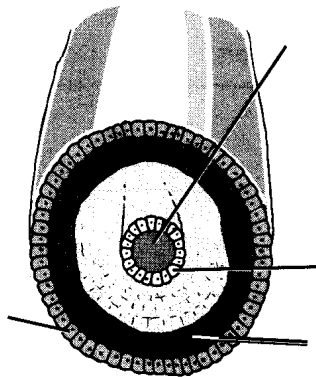
2. Describe the condition known as elephantiasis and explain how you would get this disease? _____

3. Describe how respiration, circulation, and excretion are accomplished in roundworms. _____

4. How does walking barefoot affect a person's chance of becoming infected with schistosomiasis? Explain your answer. _____

5. How can washing vegetables before you eat them help prevent severe malnutrition associated with the *Ascaris* worm? _____

STRUCTURES AND FUNCTIONS Identify each of the cross sections of a worm's body as either acoelomate or pseudocoelomate. Label the drawings by using the following terms: digestive tract, ectoderm, mesoderm, and endoderm



SECTION 27-3 REVIEW

ANNELIDS

VOCABULARY REVIEW Distinguish between the terms in each of the following pairs of terms.

- 1. septum, seta _____

- 2. crop, gizzard _____

- 3. open circulation, closed circulation _____

- 4. gill, nephridium _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. Contraction of an earthworm's longitudinal muscles
 - a. pushes the anterior end forward.
 - b. pulls the anterior end backward.
 - c. pulls the posterior end forward.
 - d. pushes the posterior end backward.
- _____ 2. An earthworm uses its seta to
 - a. grip the soil surface.
 - b. contract in a circular direction.
 - c. contract in a longitudinal direction.
 - d. form a protective case for its eggs.
- _____ 3. One difference between leeches and sandworms is that leeches
 - a. do not have segments.
 - b. do not have seta.
 - c. have parapodia.
 - d. are never carnivorous.
- _____ 4. In earthworms, the clitellum is used in
 - a. digestion.
 - b. excretion.
 - c. reproduction.
 - d. respiration.
- _____ 5. In annelids, nitrogen containing wastes are eliminated by
 - a. clitella.
 - b. parapodia.
 - c. gills.
 - d. nephridia.
- _____ 6. What is the bristle that is attached to a segment of an annelid called?
 - a. a septum
 - b. a seta
 - c. a ganglion
 - d. a gill

SHORT ANSWER Answer the questions in the space provided.

1. How does the function of an earthworm's crop differ from that of its gizzard? _____

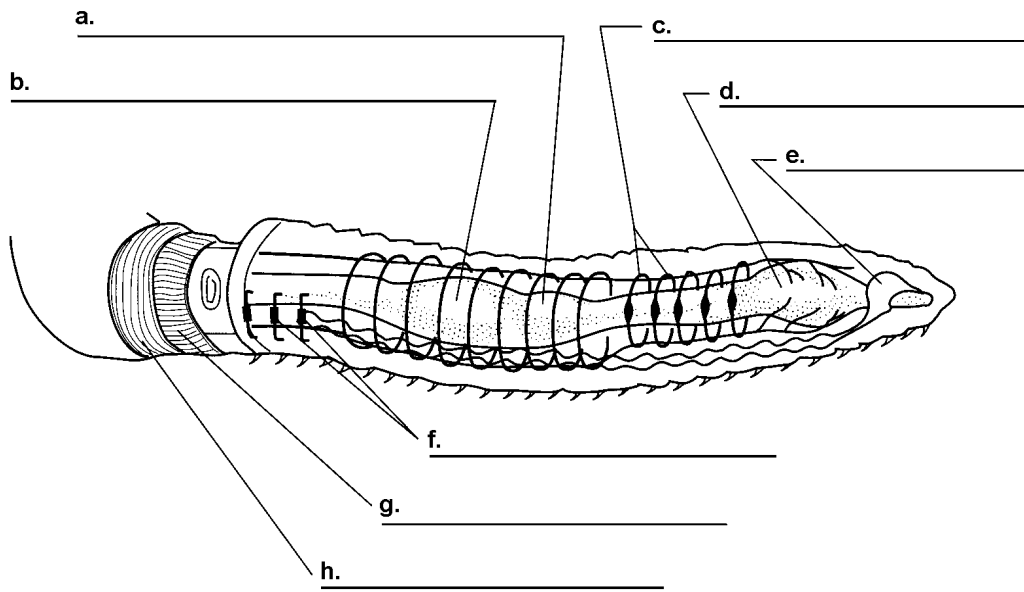
2. List three benefits of earthworm activity. _____

3. What is the function of an earthworm's dorsal and ventral aorta? _____

4. What is a hermaphrodite? Give an example. _____

5. What is a clitellum, and what is its function? _____

STRUCTURES AND FUNCTIONS Identify the structures labeled *a - h* in the diagram of an earthworm shown below. Use the following terms: nephridia, brain, longitudinal muscle, circular muscle, crop, gizzard, ring vessels, and pharynx.



SECTION 27-4 REVIEW

MOLLUSKS

VOCABULARY REVIEW Define the following terms.

- 1. trochophore _____

- 2. mantle _____

- 3. radula _____

- 4. visceral mass _____

MULTIPLE CHOICE Write the correct letter in the blank.

- _____ 1. One feature that is shared by many mollusks and some annelids is the
a. radula. b. mantle cavity. c. trochophore. d. pseudopodium.
- _____ 2. Mollusks in the class Gastropoda
a. lack a distinct head. c. may or may not have a shell.
b. have a closed circulatory system. d. are usually sessile.
- _____ 3. Bivalves have all of the following structures except
a. a radula. b. adductor muscles. c. siphons. d. gills.
- _____ 4. An octopus can move by
a. pumping a jet of water through siphon.
b. crawling along the bottom with its tentacles.
c. gliding on a layer of mucus with the help of cilia.
d. Both a and b are correct.
- _____ 5. The tongue shaped structure that some mollusks use for feeding is the
a. radula. b. sinus. c. mantle. d. proglottid.
- _____ 6. Mollusks eliminate nitrogen containing wastes through simple tube-shaped structures called
a. gills. b. siphons. c. radula. d. nephridia.

SHORT ANSWER Answer the questions in the space provided.

1. Identify the four main regions of a typical mollusk's body. _____

Which region contains most of the internal organs? _____

Which region is directly involved with locomotion? _____

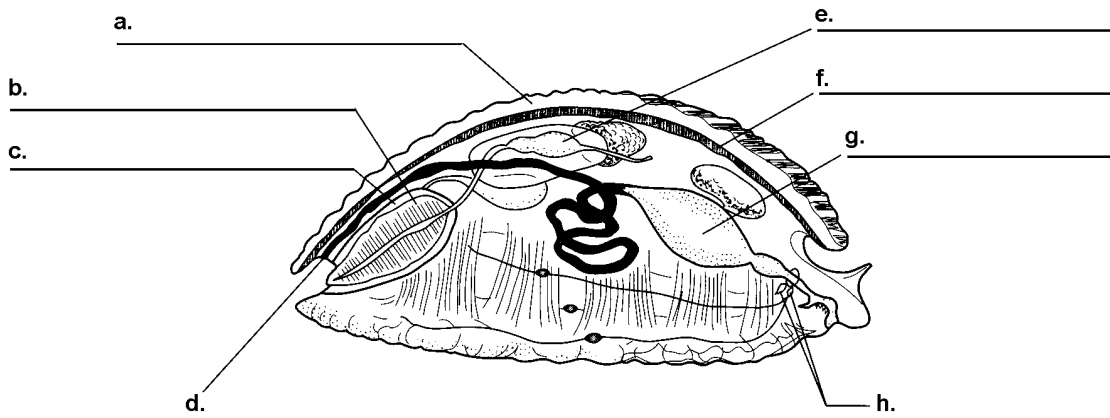
2. What is the usual function of the mantle in a snail or clam? _____

3. Contrast the feeding methods of snails and clams. _____

4. What is a trochophore, and why is it important in inferring evolutionary relationships? _____

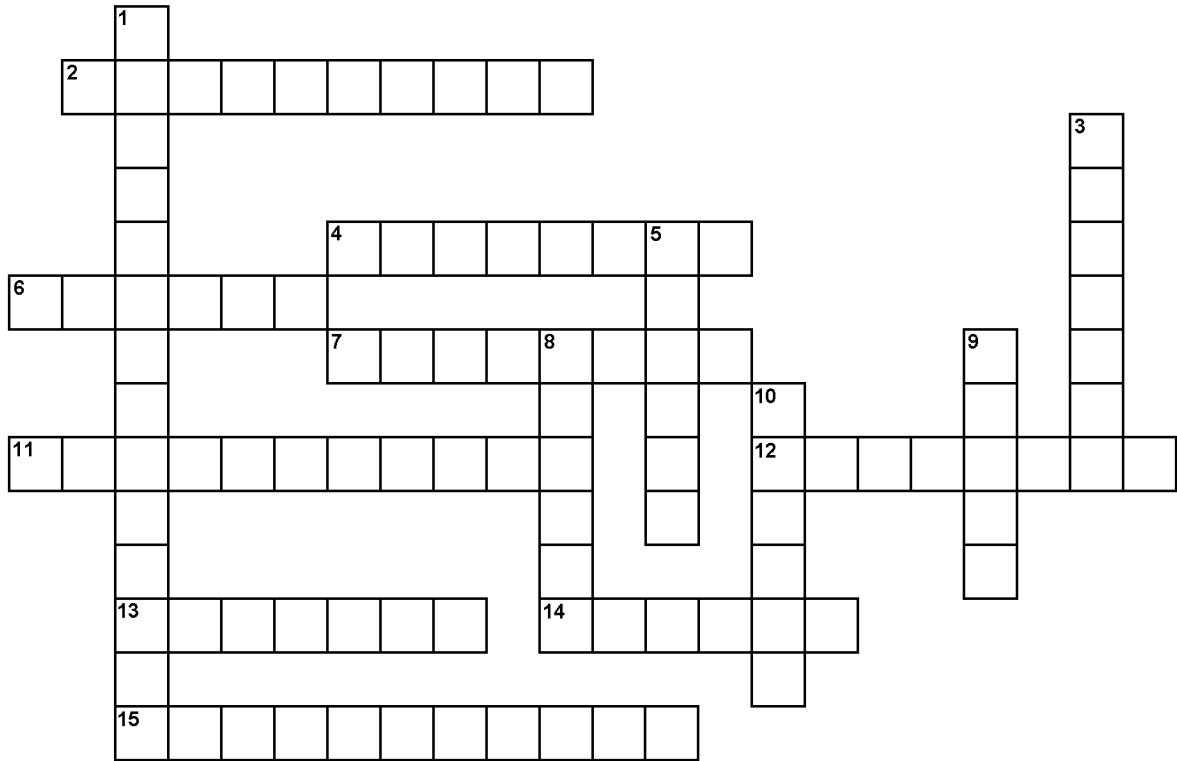
5. **Critical Thinking** A cephalopod called the paper nautilus makes a type of shell with its foot. This shell, which consists largely of protein, is formed only by the female and is used to protect the eggs. List four reasons why this shell is not a typical molluscan shell. _____

STRUCTURES AND FUNCTIONS Identify the structures labeled *a - h* in the diagram of the basic body plan of a mollusk shown below. Use the following terms: anus, ganglia, mantle cavity, gills, shell, heart, stomach, and mantle.



VOCABULARY - CHAPTER 27

The crossword puzzle is a simple way to master some of the more important vocabulary terms in this chapter.



Across

- 2. a tubule that functions as an excretory structure
- 4. phylum of the snails, squid, clams, and other similar animals
- 6. fleshy tube used to move water in and out of mollusks
- 7. muscle used to close a bivalve's shell
- 11. a feature shared by many mollusks and annelids is the _____ larvae
- 12. segmented worms
- 13. the twisting of the visceral mass of gastropods is called _____
- 14. epidermal tissue that may form a shell
- 15. octopus, squid, and chambered nautilus

Down

- 1. _____ animals are able to produce both eggs and sperm
- 3. muscular stomach in an earthworm
- 5. the circulatory system of an earthworm is _____
- 8. true body cavity that forms between mesodermal tissue
- 9. a clam's shell
- 10. tongue-like structure in some mollusks

The following terms are found in this puzzle but are not used in this chapter. Use a reference source and look up there meanings: torsion and valve.