What Is a Flatworm? (page 683)

1. Flatworms make up the phylum platyhelminthes.
2. What are the defining features of flatworms? soft, flattened worms that have tissues and internal organ systems. They have 3 germ layers, bilateral symmetry and cephalization.
3. A fluid-filled body cavity that is lined with tissue derived from mesoderm is called a(an) coelom.
4. Why are flatworms known as acoelomates? because they have no coelom
5. Is the following sentence true or false? Flatworms are the simplest animals to have three germ layers. True

Form and Function in Flatworms (pages 684–686)

6. Circle the letter of each sentence that is true about flatworms.
   a. Parasitic species are typically simpler in structure than free-living species.
   b. Free-living flatworms have organ systems for digestion, excretion, response, and reproduction.
   c. Free-living species probably evolved from parasitic ancestors.
   d. All flatworms rely on diffusion for some essential functions.
7. What do free-living flatworms feed on? tiny aquatic animals or recently dead animals

8. A muscular tube near the mouth at the end of the gastrovascular cavity is called a(an) pharynx.

9. What is the function of the pharynx? to extend from the worm and then pump food into the digestive cavity

10. What are flame cells, and what is their function? specialized cells that function in excretion they remove excess water from the body.

11. What are ganglia, and what do they do in flatworms? ganglia are a group of nerve cells that control the nervous system

12. A group of cells that can detect changes in the amount of light in a flatworm's environment is called a(an) eyespot.

13. How do cilia help flatworms move, and what do muscle cells allow them to do? cilia help them glide through the water. Muscle cells allow them to twist and turn

14. What is a hermaphrodite? it contains both male and female reproductive organs

15. What occurs during fission? an organism splits in two and each half creates a new organism

16. Is the following sentence true or false? Free-living flatworms often have complex life cycles that involve both sexual and asexual reproduction. True

Groups of Flatworms (pages 686–688)

17. Complete the table about the main groups of flatworms.

GROUPS OF FLATWORMS

Common Name	Class	Description
	Turbellaria	free-living flat worms
Flukes	Trematoda	Parasitic flatworms that infect hosts' internal organs or outside parts
Tapeworm	Cestoda	parasitic flatworms that live in hosts intestines

18. Circle the letter of each sentence that is true of turbellarians.

(a.) Most live in marine or fresh water.

b. Most are the same color, form, and size.

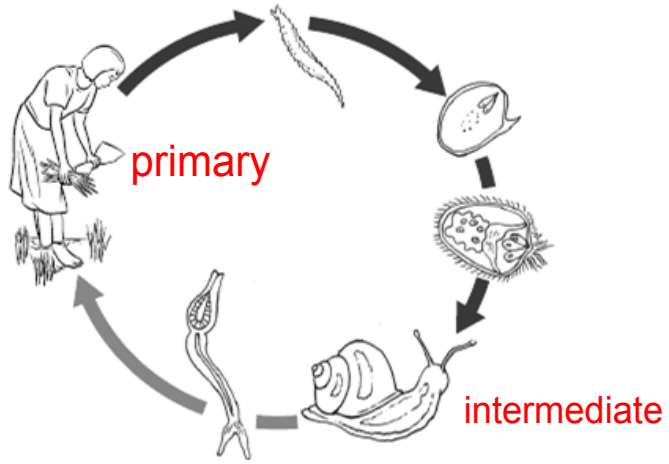
(c.) Most are bottom dwellers.

(d.) The most familiar are the planarians.

19. How does the blood fluke *Schistosoma mansoni* infect humans? burrowing through exposed skin

20. In which host do blood flukes reproduce sexually, and in which do they reproduce asexually? sexually in the human, asexually in the intermediate host

21. On the illustration of the blood fluke's life cycle, label the primary host and the intermediate host.



22. In what areas is schistosomiasis particularly widespread? in tropical areas that lack proper sewage systems

23. The head of an adult tapeworm is called a(an) scolex.

24. What does a tapeworm use its scolex for? attach to the intestinal wall of its host

25. What are proglottids?

26. Sperm are produced by male reproductive organs, called testes.

27. Is the following sentence true or false? Sperm produced by a tapeworm's testes can fertilize the eggs of the same individual. True