

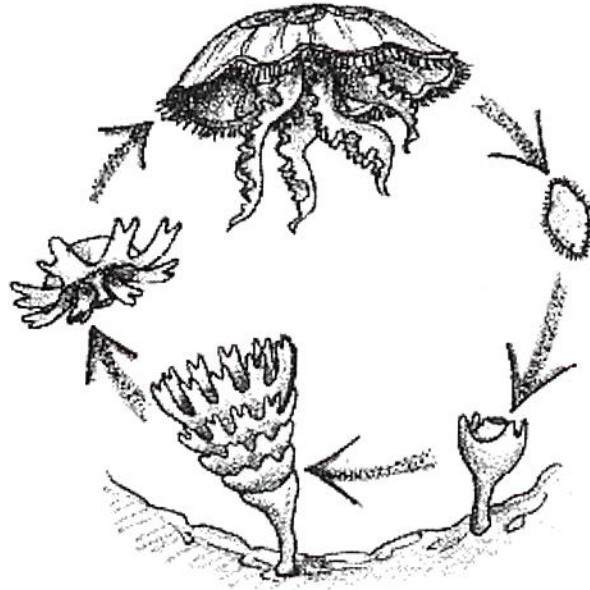
Porifera, Cnidarians and Unsegmented Worms

1. What are the characteristics that unify the Kingdom Animalia?
2. Which of the animals in this chapter are thought to be the most numerous?
3. List the 3 main trends in animal evolution.
4. Describe the terms anterior, posterior, ventral and dorsal
5. List the characteristics that unify Porifera.
6. Label the diagram of the sponge, and describe the function of each of the structures.

7. Why are Porifera considered an evolutionary “dead-end”?
8. Explain how sponges reproduce, both sexually and asexually.
9. What are gemmules and what are they for?
10. How do we use sponges for medicinal purposes? For what conditions/diseases?
11. What are the characteristics that unify cnidarians?
12. What are nematocysts and how do they work?
13. What are statocysts? Ocelli?
14. Describe the life cycle of a cnidarian. Explain how they reproduce both sexually and asexually.
15. What is the name of the process by which the larvae change into the adult form of the animal?
16. What does the word, gastro-vascular come from? How is this word an excellent description of this cavity?
17. Look at the pictures in the text and be prepared to identify the following organisms using their common names: sponges, hydra, jellyfish, sea anemone, coral, planarians, marine flatworms hookworms, and a scolex.

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18. Label the diagram of the lifecycle of a cnidarian. Draw in the missing information.

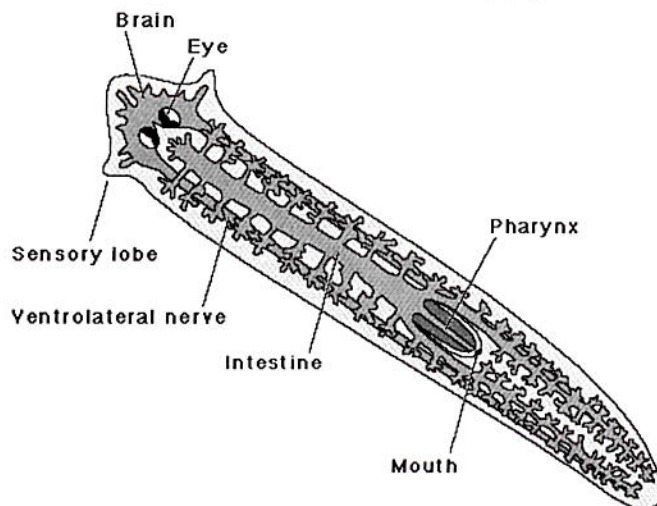


19. Why are coral so important to marine ecology?

20. What are the characteristics that unify the phylum Platyhelminthes?

21. What structures do Platyhelminthes share with cnidarians?

22. Label the diagram of *Planaria*, a representative free-living flatworm, and then describe what each of the structures do.



23. What would happen to a freshwater flatworm if it did not have flame cells? Why?

24. Other than its complexity, what is different about the flatworm's nerve cord and ours?

25. Why don't Platyhelminthes have a vascular system?

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26. What type of body plan does a flatworm have?
27. Describe what happens when a flatworm eats a piece of food.
28. How does a Platyhelminthes “breathe”? (“inhale and exhale”) How does it “urinate”? (get rid of metabolic wastes) How does it “defecate”? (get rid of solid wastes).
29. What does a free-living flatworm use its ocelli for?
30. How do free-living flatworms differ from parasitic flatworms? Why?
31. What does cephalisation mean?
32. How do flatworms detect the presence of food?
33. What are blood flukes? Why are we (in N.A.) not affected by this disease?
34. How do humans become infected by blood flukes?
35. How could we protect ourselves against blood fluke infection? How might we decrease the spread of blood flukes?
36. How are the lifecycles of flatworm and roundworm parasites different than other parasites?
37. What are the two main structures in a tape worm?
38. Describe the life cycle of a tape worm step-by-step.
39. What systems in a tapeworm are very simple? Very developed? (because they are parasitic!)
40. In what way might we consider free-living flatworms to be more “advanced” than free-living roundworms?
41. How would humans become infected by tapeworms?
42. How could we help prevent tapeworm infection, or control the spread of tapeworms?
43. What are the characteristics that unify nematodes?
44. How do roundworms “breathe” and excrete metabolic wastes (urinate)?
45. Describe the life cycle of the parasitic roundworm *Ascaris*. How do humans become infected with this parasite?
46. How do humans become infected with hookworms? Why are they called hookworms?
47. What is *Trichinella*? How do humans become infected with *Trichinella*? Describe the life cycle of *Trichinella*.
48. What is a coelom? What types of animals do not have coeloms? What animals have pseudocoeloms?