

Section 4-5 Aquatic Ecosystems



Key Concepts

- What are the main factors that govern aquatic ecosystems?
- What are the two types of freshwater ecosystems?
- What are the characteristics of the different marine zones?

Introduction (page 106)

1. Aquatic ecosystems are primarily determined by what characteristics of the overlying water?

- a. _____ c. _____
 b. _____ d. _____

2. What does the depth of the water determine? _____

3. What does water chemistry primarily refer to? _____

Freshwater Ecosystems (pages 106-107)

4. What are the two main types of freshwater ecosystems?

- a. _____ b. _____

5. Where do flowing-water ecosystems originate? _____

6. How does the circulating water in a standing-water ecosystem affect the ecosystem?

7. What is plankton? _____

8. Complete the table about kinds of plankton.

KINDS OF PLANKTON

Kind	Organisms	How Nutrition Obtained
	Unicellular algae	
	Planktonic animals	

9. What is a wetland? _____

10. What is brackish water? _____

11. What are three main types of freshwater wetlands?

- a. _____ b. _____ c. _____

12. What distinguishes a marsh from a swamp? _____

Estuaries (page 108)

13. What are estuaries? _____

14. Tiny pieces of decaying plants and animals make up the _____ that provides food for organisms at the base of an estuary's food web.

15. Circle the letter of each sentence that is true about estuaries.

- a. Most primary production is consumed by herbivores.
- b. They contain a mixture of fresh water and salt water.
- c. Sunlight can't reach the bottom to power photosynthesis.
- d. They are affected by the rise and fall of ocean tides.

16. What are salt marshes? _____

17. What are mangrove swamps, and where are they found? _____

Marine Ecosystems (pages 109-112)

18. What is the photic zone of the ocean? _____

19. The permanently dark zone below the photic zone is called the

_____.

20. What are the three main vertical divisions of the ocean based on the depth and distance from the shore?

- a. _____
- b. _____
- c. _____

21. Circle the letter of each sentence that is true about the intertidal zone.

- a. Organisms there are exposed to extreme changes in their surroundings.
- b. The rocky intertidal zones exist in temperate regions.
- c. Organisms are battered by currents but not by waves.
- d. Competition among organisms often leads to zonation.

22. What is zonation? _____

23. What are the boundaries of the coastal ocean? _____

24. Why is the coastal ocean often rich in plankton and many other organisms?

25. A huge forest of giant brown algae in the coastal ocean is a(an)
_____.

26. Circle the letter of each sentence that is true about coral reefs.

- a. The coasts of Florida and Hawaii have coral reefs.
- b. The primary structure of coral reefs is made of the skeletons of coral animals.
- c. Almost all growth in a coral reef occurs within 40 meters of the surface.
- d. Only a few organisms are able to live near coral reefs.

27. What are the boundaries of the open ocean? _____

28. The benthic zone covers the ocean _____.

29. What are the boundaries of the benthic zone? _____

30. Organisms that live attached to or near the bottom of the ocean are called
_____.