Chapter 3 Review

Answer the following questions on a separate sheet of paper.

Vocabulary
The following list contains all the boldface terms in this chapter.

adaptation, aphotic zone, barrier beaches, benthic zone, benthos, biodiversity, brackish, camouflage, color contrast, continental shelf, coral reef, disruptive coloration, estuary, intertidal zone, life zone, mangrove community, mud flat community, neritic zone, ocean basin, oceanic zone, pelagic zone, photic zone, photosynthesis, rocky coasts, salt marsh community, sandy beach, strandline, subtidal zone, supratidal zone, surf zone, territoriality, tide pools, wetlands, zonation

Fill In
1. The ________ is dominated by trees that live in salt water.
2. Organisms that live on the seafloor inhabit the ________.
3. The ________ includes the waters above the continental shelf.
4. The area between high tide and low tide is the ________.
5. Salt water and freshwater form an ________ at a river mouth.

Think and Write
Use the information in this chapter to respond to these items.

6. Compare the intertidal zone of a rocky beach with that of a sandy beach.
7. What are two important differences between the neritic and oceanic zones?
8. Compare the main traits of a salt marsh with those of a mud flat community.
Inquiry

Base your answers to questions 9 through 12 on Figure 3-3 on page 64, which shows a cross section of the major life zones of the ocean, and on your knowledge of marine science.

9. Identify, by name, the zone in which most of the world’s commercial fishing takes place. Give two reasons why this zone is so biologically productive.

10. Identify, by name, the vast area of the oceanic zone that receives very little sunlight. Give an example of an organism that is adapted to live in this zone. Below which oceanic zone is it located (identify by name)?

11. Identify, by name, the largest marine life zone. What kinds of large marine animals swim freely here? What are the names of the two life zones that it includes?

12. Identify, by name, the zone in which marine organisms live that are specially adapted to survive alternating periods of high tides and low tides. How do barnacles survive there?

Multiple Choice

Choose the response that best completes the sentence or answers the question.

13. The arching roots of the mangrove tree serve all the following functions except a. they anchor the trees in the muddy sand b. they provide a habitat for small fish and invertebrates c. they serve as a food source for the mangrove snapper d. they hold the sand and prevent its erosion.

14. Which of the following organisms would be found in a rocky coast intertidal zone? a. sea anemones, flounder, blue-green bacteria, barnacles b. barnacles, snails, mussels, seaweeds c. mussels, sea stars, cordgrass, seaweeds d. sea stars, cordgrass, shore shrimp, fiddler crabs

15. Of the following marine organisms, which would probably not be found in a rocky tide pool? a. crab b. grazing snail c. flounder d. barnacle
16. A barrier beach is located between  
   a. a bay and an atoll  
   b. a bay and a river  
   c. a river and an atoll  
   d. a bay and the ocean.

17. The marine environment that is characterized by a shifting, unstable sediment is the  
   a. rocky coast  
   b. coral reef  
   c. sandy beach  
   d. tide pool.

18. The dominant plant life in the salt marsh is the  
   a. sea lettuce  
   b. cordgrass  
   c. mangrove tree  
   d. red algae.

19. The salt marsh is more productive than the mud flat because it  
   a. lies in deeper waters  
   b. has more salt  
   c. has more producer organisms  
   d. lies in calmer waters.

20. In which geographic area would a mangrove swamp be located?  
   a. Gulf of Maine  
   b. Puget Sound  
   c. San Francisco  
   d. Florida Keys

21. Coral reefs are found in latitudes where the ocean’s waters are  
   a. warm and clear  
   b. warm and murky  
   c. cold and clear  
   d. cold and murky.

22. The cordgrass *Spartina* has adapted to salt water by  
   a. growing deep roots  
   b. conserving freshwater in its leaves  
   c. secreting excess salt from its leaves  
   d. not taking in salt through its roots.

23. The mud flat community has all of the following characteristics except  
   a. dark, muddy sand  
   b. invertebrates that burrow  
   c. a high rate of decomposition  
   d. turbulent wave action.

24. All the following factors contribute to the coral reef’s biodiversity except  
   a. the growth of algae within the coral polyps  
   b. many crevices in which animals can live and hide  
   c. plenty of sunlight  
   d. coastal development.

25. The ability of a fish to blend in with its surroundings is called  
   a. color contrast  
   b. camouflage  
   c. disruptive coloration  
   d. territoriality.

**Research/Activity**

Many wetlands are being lost to coastal development. Report on recent efforts to protect vanishing wetlands in the United States.

You do NOT have to do the above "Research Activity", but you DO have to turn in this completed review sheet at the START of next class... please work on it TODAY in class as well.