

Ocean Zones ▪ *Guided Reading and Study*

Exploring the Ocean

This section describes how the ocean has been explored over the past several thousand years. The section also describes features of the ocean floor and explains how the ocean floor moves.

Use Target Reading Skills

On the lines provided, write a definition of each term in your own words.

sonar _____

continental shelf _____

abyssal plain _____

mid-ocean ridge _____

trench _____

plate _____

seafloor spreading _____

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Exploring the Ocean *(continued)*

Learning About the Ocean

1. Circle the letter of the sentence that is true about the Phoenicians.
 - a. They were one of the earliest cultures to explore the oceans.
 - b. They sailed to Hawaii.
 - c. They established sea routes for trade by 2000 B.C.
 - d. They lived on islands in the Indian Ocean.
2. Is the following sentence true or false? Captain Cook's voyages of exploration marked the beginning of the modern science of oceanography. _____
3. Why has the deep ocean floor been explored only recently?

4. Is the following sentence true or false? To study the deep ocean floor, scientists have relied on direct methods of gathering information.

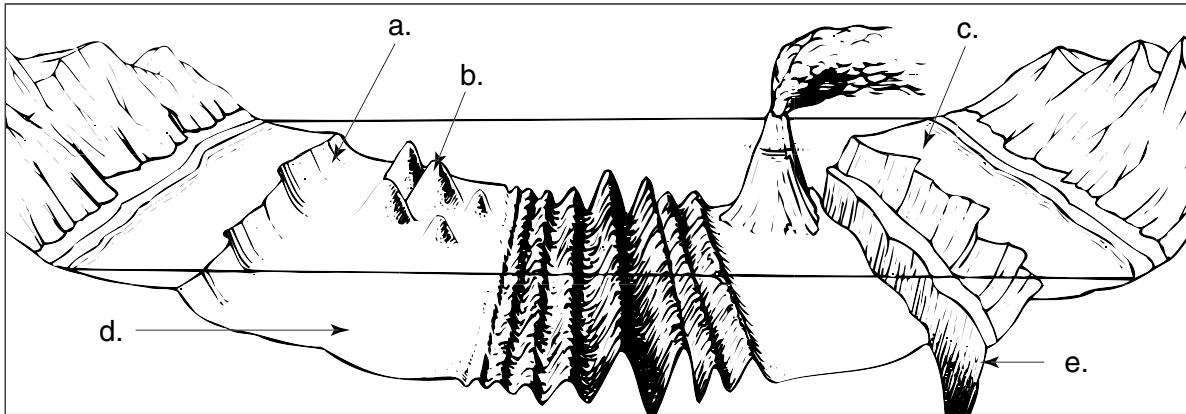
5. Circle the letter of each sentence that is true about sonar.
 - a. It measures distance.
 - b. It uses sound waves.
 - c. It is an indirect way of gathering data.
 - d. It uses X rays.

Features of the Ocean Floor

6. Circle the letter of each sentence that is true about the ocean floor.
 - a. It is flat and sandy.
 - b. It is rocky and uneven.
 - c. It has the biggest mountains on Earth.
 - d. It has deep canyons.

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7. Find and label each of the following ocean floor features in the drawing: continental shelf, continental slope, seamount, abyssal plain, and trench.



Match each feature of the ocean floor with its description.

| Feature | Description |
|--------------------------|--|
| ___ 8. continental shelf | a. Smooth and nearly flat region of the ocean floor |
| ___ 9. continental slope | b. Mountain on the ocean floor that is completely under water |
| ___ 10. seamount | c. Continuous range of mountains on the ocean floor |
| ___ 11. abyssal plain | d. Incline at the edge of the continental shelf |
| ___ 12. mid-ocean ridge | e. Steep-sided canyon in the ocean floor |
| ___ 13. trench | f. Shallow area of the ocean floor extending outward from land |

14. Circle the letter of each sentence that is true about the mid-ocean ridge.

- a. It passes through all of Earth's oceans.
- b. It is about 800 kilometers long.
- c. It is the longest mountain range on Earth.
- d. It is divided by a central valley.

Movements of the Ocean Floor

15. The hot liquid material inside Earth is called _____. If this material reaches the surface, it is called _____.
16. Pieces of Earth's crust, along with parts of the upper mantle, are called _____.
17. Circle the letter of each sentence that is true about Earth's plates.
- a. They move on the liquid of the mantle.
 - b. They lie beneath the continents but not the oceans.
 - c. They move several kilometers per year.
 - d. Their movements create Earth's landforms.

Name _____ Date _____ Class _____

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Exploring the Ocean *(continued)*

18. Describe seafloor spreading.

19. Why doesn't Earth increase in size as the seafloor spreads along the mid-ocean ridge?
