

**Goal** • Check your understanding of Chapter 2.

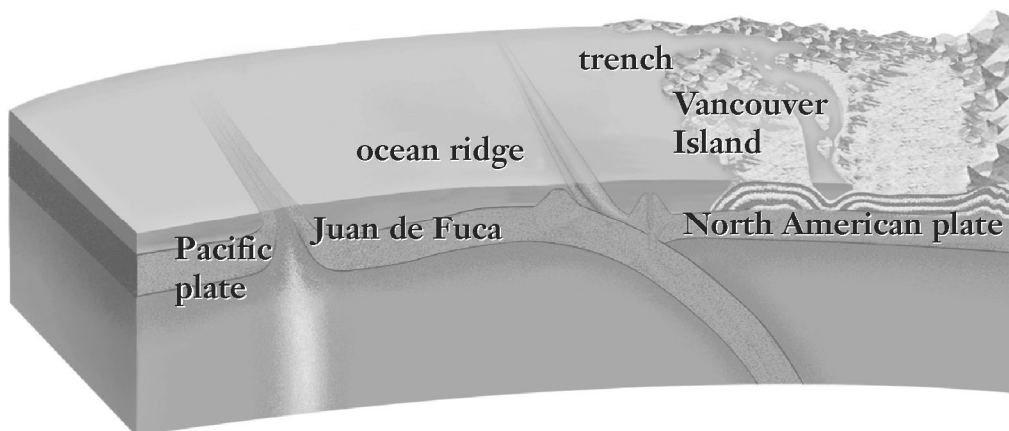
### What to Do

Circle the letter of the best answer.

1. Where do scientists believe most of the water that formed the oceans came from?
  - A. comets from space
  - B. melting glaciers
  - C. rainfall
  - D. water rising through cracks in Earth
2. Which of the following describes the plate motion at a mid-ocean ridge?
  - A. Plates dive beneath one another.
  - B. Plates move apart.
  - C. Plates move together.
  - D. Plates slide past each other.
3. What is the name for the flat, shallow part of the ocean floor found at the edge of a continent?
  - A. continental divide
  - B. continental rise
  - C. continental shelf
  - D. continental slope
4. Which of the following is not a cause of surface currents in the ocean?
  - A. Earth's spin
  - B. ocean depth changes
  - C. water hitting the continents
  - D. wind action
5. Which of the following is *not* correct?
  - A. Crewed submersibles allow people to control the vehicle from a ship that is safely on the surface.
  - B. New deep sea cameras and video allow pictures and video to be taken 6000 m beneath the surface of the sea.
  - C. Satellites can receive information from buoys that are anchored to the ocean floor at fixed points.
  - D. Sonar mapping uses sound waves to probe the seabed.

6. Why does the ocean have tides?
- A. Earth rotates.
  - B. Earth's distance to the Sun changes.
  - C. The Moon has a gravitational pull on Earth.
  - D. The Moon's magnetic field attracts water.
7. As winds and currents move over the spinning Earth, their path gets redirected depending on what side of the equator they are on. What is the name of this alteration of direction?
- A. Coriolis effect
  - B. density currents effect
  - C. el Niño effect
  - D. upwellings effect
8. Which of the following best describes the thermocline?
- A. the deep water layer, where temperatures approach the freezing point
  - B. the layer where the temperature varies significantly, approximately 200 m to 1000 m beneath the surface
  - C. the mixed layer
  - D. the warmest layer, where the Sun's energy heats the water

Use the following diagram to answer question 9.



9. What is happening where the Juan de Fuca plate and the North American plate meet?
- A. The plates are pulling apart.
  - B. The plates are pushing together.
  - C. The plates are shifting east.
  - D. The plates are shifting west.
10. Which of the following are the most important causes of deep ocean currents?
- A. water depth and organic materials
  - B. water salinity and the spin of Earth
  - C. water temperature and salinity
  - D. water temperature and wind direction

**Match the Term on the left with the best Descriptor on the right.**  
**Each Descriptor may be used only once.**

Term	Descriptor
_____ 11. abyssal plain	A. large ocean wave often caused by an earthquake
_____ 12. bay	B. occurs when water rises from deep in the ocean
_____ 13. tsunami	C. flat area on ocean floor
_____ 14. upwelling	D. indented areas where oceans reach into the land
	E. underwater landslide in the ocean

### Short Answer Questions

15. (a) List three factors that affect water currents on the surface of the ocean.

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(b) Describe in detail how one of these factors affects water currents on the surface of the ocean.

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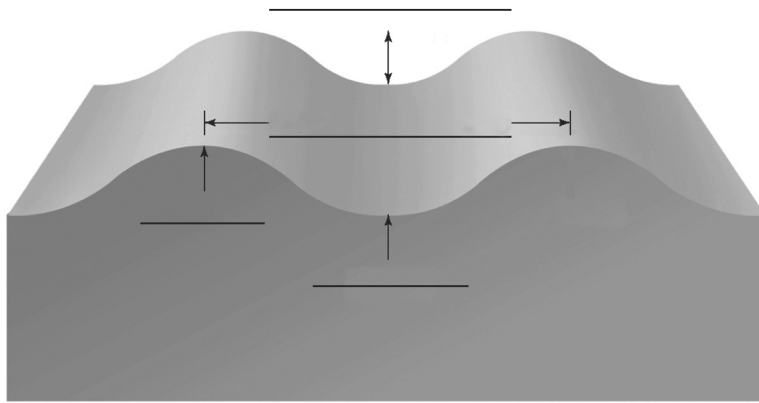
16. Explain how scientists use sonar to map the ocean floor.

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17. Identify wavelength, wave height, crest, and trough on the following diagram.



18. (a) Explain how beaches are formed.

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(b) Explain how bays are formed.

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