

Chapter 16 The Dynamic Ocean

Section 16.2 Waves and Tides

This section discusses waves and tides and explains what causes them.

Reading Strategy

Building Vocabulary As you read this section, define in your own words each vocabulary term listed in the table. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

Vocabulary Term	Definition
Wave height	a.
Wavelength	b.
Wave period	c.
Fetch	d.

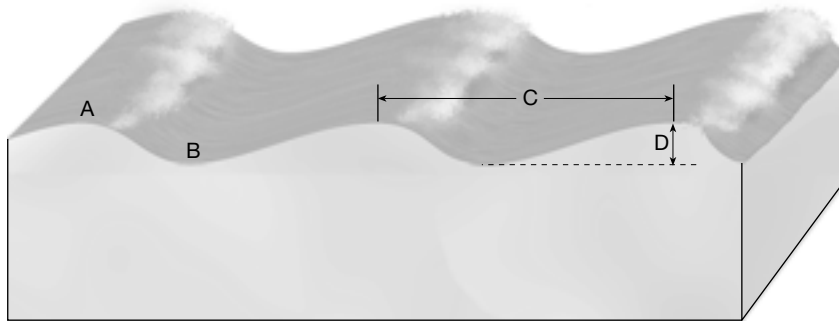
Waves

- Waves in the ocean are _____ traveling along the water.
- Circle the letter of the source of most waves' energy and motion.
 - Earth's gravity
 - wind
 - Earth's rotation
 - the moon's gravity
- The distance wind travels across open ocean water is called _____.
- What three factors determine the height, length, and period of ocean waves? _____

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5. Write the name of the wave part represented by each of the following letters in the figure.

- A. _____
- B. _____
- C. _____
- D. _____



6. ➡ Is the following sentence true or false? Through circular orbital motion, wave energy moves forward through ocean water, while individual water particles move around in a circle, staying essentially in the same place. _____

Tides

7. ➡ What causes ocean tides? _____

8. ➡ Circle the letter of the forces that produce tides.
- a. inertia and gravity
 - b. friction and wind
 - c. temperature and pressure
 - d. gravity and friction

9. Is the following sentence true or false? Most places on Earth experience one low tide and one high tide each day.

Match each definition with its term.

Definition	Term
_____ 10. tide with the greatest difference in height between successive high and low tides	a. spring tide
_____ 11. tide with the least difference in height between successive high and low tides	b. neap tide
_____ 12. difference in height between successive high and low tides	c. tidal range

13. ➡ Worldwide, the three main tidal patterns that exist are diurnal tides, _____ tides, and mixed tides.