

Characteristics of Waves ▪ Guided Reading and Study

What Are Waves? (pp. 510–514)

This section explains what causes waves and identifies two types of waves.

Use Target Reading Skills

Before you read the passage for each heading, fill in the top box with what you know.

After you have read the passage, fill in the bottom box with what you have learned.

What You Know
1. Waves are high and low.
2.
3.
4.
5.

What You Learned
1.
2.
3.
4.
5.



Waves and Energy (pp. 511–512)

1. What is a wave?

2. The material through which a wave travels is called a(n)

3. Circle the letter of each of the following that can act as mediums.

- a. solids
- b. liquids
- c. gases
- d. empty space

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What Are Waves? *(continued)*

4. Waves that require a medium through which to travel are called _____.
5. Is the following sentence true or false? When waves travel through a medium, they carry the medium with them. _____
6. Explain what happens to the motion of a duck on the surface of a pond when a wave passes under it.

7. Give an example of a wave that can travel through empty space.

8. Mechanical waves are produced when a source of energy causes a medium to _____.

9. What is a vibration?

Types of Waves (pp. 512–514)

10. How are mechanical waves classified?

11. Waves that move the medium at right angles to the direction in which the waves are traveling are called _____.

12. Suppose you move the free end of a rope up and down to create a wave. In that case, the rope is the medium. What is the relationship between the movement of the wave and the movement of the particles of the medium?
