

Review and Reinforce

What Are Waves?

Understanding Main Ideas

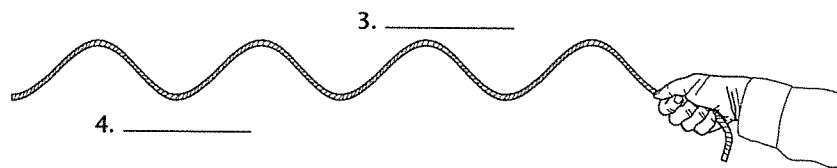
Answer the following questions in the space provided.

1. What happens when a source of energy causes a medium to vibrate?

2. What are the types of mechanical waves?

Building Vocabulary

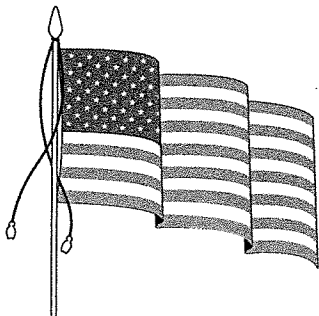
Label the parts of the wave shown in the illustration.



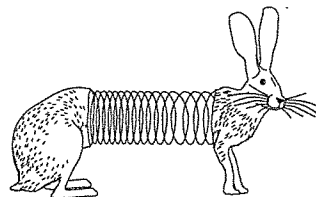
Answer the following questions in the spaces provided.

5. What medium is the wave traveling through? _____
6. What is the source of energy causing the wave? _____
7. How do you know the wave is a mechanical wave? _____
8. What type of mechanical wave is this? _____

Identify the type of wave shown in each illustration.



9. _____



10. _____

Review and Reinforce

Properties of Waves

Understanding Main Ideas

Answer the following questions in the spaces provided. Use a separate sheet of paper if you need more room.

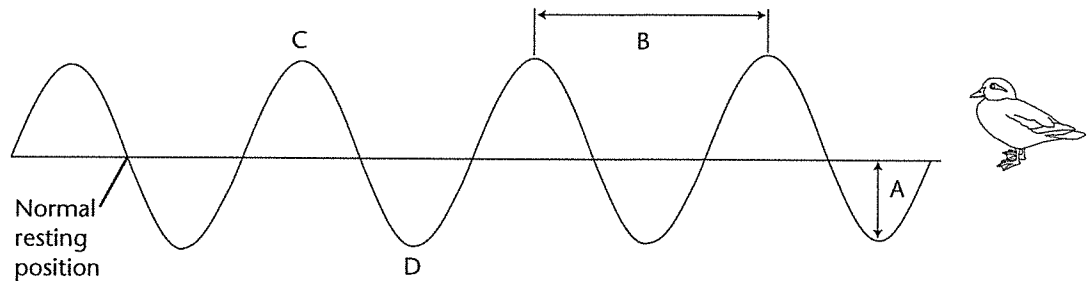
1. Name four properties of a wave. Tell what each property describes.

2. How are three of the properties in question 1 related?

3. What happens to the speed of a wave if the medium, temperature, and pressure do not change?

Building Vocabulary

Use the diagram to answer Questions 4–8. Fill in the blank to complete each statement.



4. Four complete waves pass the duck in one second. The frequency of this wave is _____.
5. The letter A represents the _____ of the wave.
6. The letter B represents the _____ of the wave.
7. The letter C represents a(n) _____ of the wave.
8. The letter D represents a(n) _____ of the wave.

Review and Reinforce

Interactions of Waves

Understanding Main Ideas

If the statement is true, write *true*. If the statement is false, change the underlined word or words to make the statement true.

- _____ Waves change direction by diffraction, reflection, and deflection.
- _____ Constructive interference is used in some headphones to block out distracting noises in a listener's surroundings.
- _____ If an incoming wave and reflected wave have a high-pitched frequency, they combine to form a standing wave.

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

- | | |
|-----------------------------------|---|
| 4. ____ diffraction | a. interaction of two waves that results in a wave with a larger amplitude |
| 5. ____ interference | b. a wave that appears to stay in one place |
| 6. ____ constructive interference | c. increase in amplitude that occurs when external vibrations match an object's own natural frequency |
| 7. ____ destructive interference | d. interaction of two waves that results in a wave with a smaller amplitude |
| 8. ____ standing wave | e. the bending and spreading out of waves around the edge of a barrier |
| 9. ____ resonance | f. interaction between two waves that meet |