Name _____ Date _____ Class _____

What Are Waves?

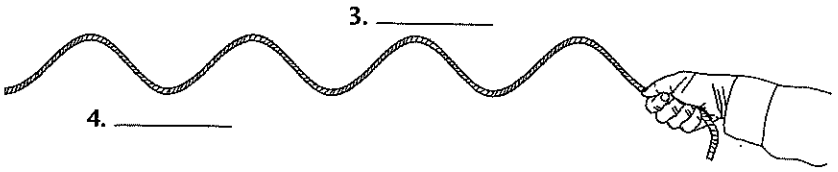
Understanding Main Ideas

Answer the following questions on a separate sheet of paper.

1. What causes waves?
2. Using a spring as an example, describe the compressions and rarefactions of a wave.

Building Vocabulary

Label the trough and crest of the wave in the illustration below.



Answer the following questions about the wave shown above 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?

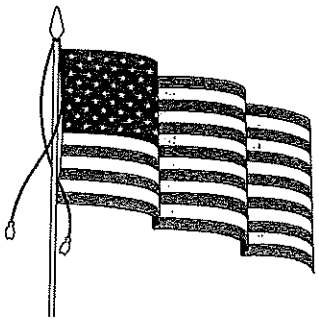
_____

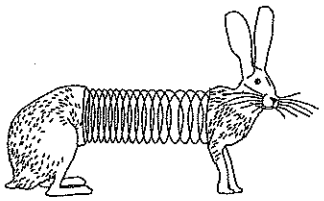
_____

8. What type of mechanical wave is this?

_____

Label each wave shown below as longitudinal or transverse.





9. _____ 10. _____

Name _____ Date _____ Class _____

Properties of Waves (pp. 515–519)

This section describes the basic properties of waves. It also explains how a wave's speed is related to its wavelength and frequency.

Use Target Reading Skills

As you read about the properties of waves, make an outline using the red headings for the main ideas and the blue headings for the supporting ideas.

Properties of waves
I. Amplitude A. Amplitude of Transverse Waves B. II. Wavelength   III.

Introduction (p. 515)

1. What are four basic properties of waves?

_____

_____

_____

Amplitude (p. 516)

2. The maximum distance the particles of the medium carrying a wave move away from their rest position is called the wave's _____.

3. Explain what the amplitude of a water wave is.

_____

_____

_____