

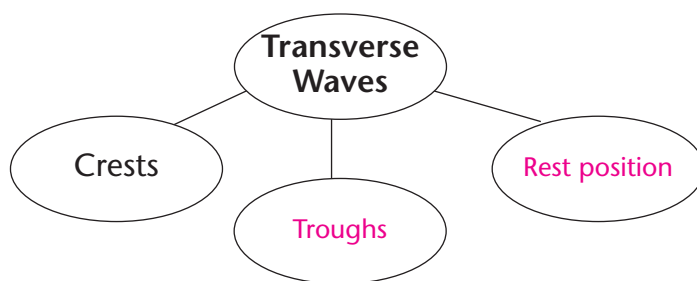
Chapter 17 Mechanical Waves and Sound

Section 17.1 Mechanical Waves**(pages 500–503)**

This section explains what mechanical waves are, how they form, and how they travel. It discusses three main types of mechanical waves—transverse, longitudinal, and surface waves—and gives examples for each type.

Reading Strategy (page 500)

Previewing As you read this section, use Figure 2 on page 501 to complete the web diagram. Then use Figures 3 and 4 to make similar diagrams for longitudinal waves and surface waves on a separate sheet of paper. 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.

**What Are Mechanical Waves? (page 500)**

1. A disturbance in matter that carries energy from one place to another is called a(n) mechanical wave.
2. Is the following sentence true or false? Mechanical waves can travel through empty space. false
3. The material through which a wave travels is called a(n) medium.
4. Is the following sentence true or false? Solids, liquids, and gases all can act as mediums for waves. true
5. A mechanical wave is created when an energy source causes a vibration to travel through a medium.

Types of Mechanical Waves (pages 501–503)

6. Circle the letter of the characteristic used to classify a mechanical wave.
 - a. the height of its crest
 - b.** the way it travels through a medium
 - c. the type of medium through which it travels

