

**Sound**

# **Properties of Sound**

## **Loudness**

**Key Concept:** The loudness of a sound depends on two factors: the amount of energy it takes to make the sound and the distance from the source of the sound.

- **Loudness** is how loud or soft a sound seems to the person who hears it.
- The more energy it takes to make a sound, the louder the sound. For example, pounding hard on a door with your fist makes a louder sound than tapping gently on a door with your fingers.
- The closer you are to the source of a sound, the louder the sound. The whisper of a person next to you is louder than the whisper of a person across the room.
- The loudness of a sound is measured in **decibels (dB)**. The loudness of a whisper is about 20 dB. The loudness of a rock concert is about 120 dB.

*Answer the following questions. Use*

1. Circle the letter of each sentence that is true about loudness.
  - a. Louder sounds take more energy to make.
  - b. Moving away from the sound source makes a sound louder.
  - c. Loudness is measured in decibels.
2. Is the following sentence true or false? Sounds are louder when you are closer to them. \_\_\_\_\_