

**SECTION**  
**1****Reinforcement****The Nature of Sound****CHAPTER 10.1 REVIEW**

**Directions:** Answer the following questions on the lines provided.

1. What causes sound?

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2. How do air molecules enable sound to travel from a radio's speaker to your ears?

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3. Describe how the ringing sound of a telephone travels from the phone to your ear.

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4. Describe a compression and a rarefaction of a sound wave traveling through air.

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5. Through which medium would sound travel the fastest, water, a steel bar, or nitrogen gas? Explain.

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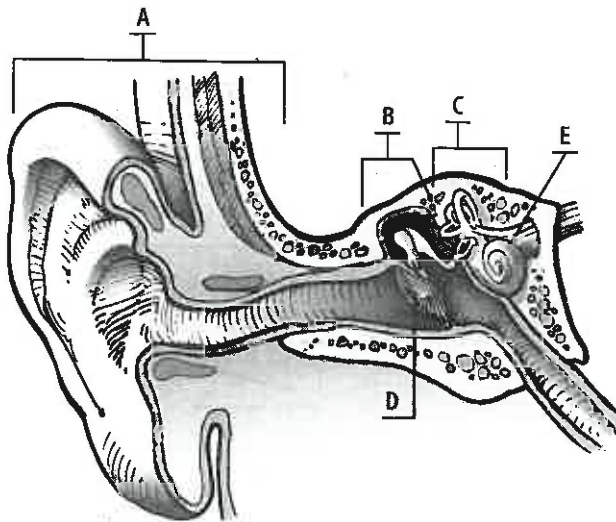
6. In which medium would sound travel the fastest, water at 10°C or water at 25°C? Why?

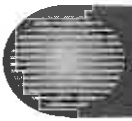
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**Directions:** In questions 7 through 11, identify the parts of the ear in the diagram below by putting the correct letters in the blanks.

- \_\_\_\_\_ 7. cochlea
- \_\_\_\_\_ 8. eardrum
- \_\_\_\_\_ 9. inner ear
- \_\_\_\_\_ 10. middle ear
- \_\_\_\_\_ 11. outer ear





## Directed Reading for Content Mastery

**Section 1 ■ The Nature of Sound**  
**Section 2 ■ Properties of Sound**

**Directions:** Circle the term that correctly completes the sentence.

1. Sound is produced by (vibrations, waves).
2. Compressions and rarefactions are kinds of (sound waves, vibration waves).
3. Sound travels faster in (liquids, solids).
4. The speed of sound depends on the (temperature, empty space).
5. The inner ear contains the (cochlea, anvil) that sends nerve impulses to the brain.

**Directions:** For each of the following, write the letter of the term or phrase that best completes the sentence.

- \_\_\_\_\_ 6. The amount of energy that flows through a certain area in a specific amount of time is known as \_\_\_\_\_.  
a. intensity                                      b. loudness
- \_\_\_\_\_ 7. The intensity of a sound is measured in \_\_\_\_\_.  
a. units    b. decibels
- \_\_\_\_\_ 8. Sound waves with a high frequency are interpreted as \_\_\_\_\_ pitch sounds.  
a. high    b. low
- \_\_\_\_\_ 9. A change in pitch or wave frequency due to movement is known as \_\_\_\_\_.  
a. the Doppler effect                          b. ultrasonic waves
- \_\_\_\_\_ 10. A sound wave consists of compressions and \_\_\_\_\_.  
a. vibrations                                    b. rarefactions
- \_\_\_\_\_ 11. Sound waves can NOT move through \_\_\_\_\_.  
a. wood    b. a vacuum
- \_\_\_\_\_ 12. Sound waves of \_\_\_\_\_ intensity travel farther.  
a. low    b. high