

Review and Reinforce

The Nature of Sound

Understanding Main Ideas

Answer the following questions in the space provided.

1. What is sound?

2. How does the vibration of a drumhead cause a sound wave to form?

3. Do sound waves always travel in straight lines? Explain.

Complete the following table.

Factor	Change in Factor	Effect on Speed of Sound
stiffness	increase in stiffness	4.
density	increase in density	5.
temperature	decrease in temperature	6.

Building Vocabulary

Write a definition for the term on the lines below.

7. density

Lesson Quiz

The Nature of Sound

Write the letter of the correct answer on the line at the left.

- | | |
|--|--|
| <p>1. ___ Sound travels as a(n)</p> <ul style="list-style-type: none">A mediumB energyC waveD particle <p>3. ___ When one part of a vibration pushes air particles together, they form a</p> <ul style="list-style-type: none">A compressionB sound waveC diffractionD rarefaction | <p>2. ___ When one part of a vibration causes air particles to spread out, they form a</p> <ul style="list-style-type: none">A compressionB sound waveC diffractionD rarefaction <p>4. ___ Sound can travel through</p> <ul style="list-style-type: none">A solidsB liquidsC gasesD all of the above |
|--|--|

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

5. _____ The quality of sound depends on the temperature, stiffness, and density of the medium the sound travels through.
6. _____ Sound travels more quickly at higher temperatures than at lower temperatures.
7. _____ Sound waves lose energy more quickly in stiff mediums than in less stiff mediums.
8. _____ The state of a medium helps determine the speed of sound passing through the medium.
9. _____ Weight is the amount of matter or mass there is in a given amount of space or volume.
10. _____ The speed of sound traveling through steel is much less than the speed of sound traveling through air.

Place the outside corner, the corner away from the dotted line, in the corner of your copy machine to copy onto letter-size paper.