Name _____ Date _____ Class _____

Review and Reinforce

Properties of Sound

Understanding Main Ideas

Answer the following questions in the spaces provided.

1. What property of sound depends on the energy and intensity of the sound wave?

_____

2. What does the pitch of a sound depend on?

_____

3. What creates the Doppler effect?

_____

_____

_____

Building Vocabulary

Match each term with its definition by writing the letter of the correct definition in the right column on the line beside the term in the left column.

4. ___ decibel (dB)
5. ___ pitch
6. ___ intensity
7. ___ loudness

a. energy a sound wave carries per second through a unit area
b. unit of comparison for loudness
c. how high or low a sound seems
d. awareness of the energy of a sound

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

Name _____ Date _____ Class _____

Lesson Quiz

Properties of Sound

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

1. ___ The waves in front of a moving sound source have
   A longer wavelengths than trailing waves
   B a higher pitch than the waves behind it
   C different properties than trailing waves
   D the same amplitude as the waves behind it

2. ___ A 10-dB increase in loudness represents
   A a twofold increase in intensity
   B a fourfold increase in intensity
   C a tenfold increase in intensity
   D a hundredfold increase in intensity

3. ___ Loudness describes
   A the energy and intensity of a sound wave
   B the decibel level of a sound wave
   C a danger to public health
   D your awareness of a sound's energy

4. ___ When your vocal cords relax, you produce sound waves with
   A lower frequencies and lower pitches
   B lower frequencies and higher pitches
   C higher frequencies and higher pitches
   D higher frequencies and lower pitches

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 loudness of different sounds is compared in units called Hertz (Hz).

6. _____ The farther apart a sound wave and its source are, the less energy the sound wave has in a given area.

7. _____ The diffusion theorem explains a change that occurs in the frequency of a wave as its source moves in relation to an observer.

8. _____ A sound source vibrating with a large amplitude produces a sound wave with a(n) small amplitude.

9. _____ The less energy a sound wave has, the softer it sounds.

10. _____ Sounds louder than 60 dB can cause damage to your ears.