



Reinforcement

What is sound?

Directions: *If the statement is correct, write True. If it is false, change the italicized term or terms to make the statement true.*

- _____ 1. All sounds are produced by *vibrations*.
- _____ 2. Sound is a *transverse* wave.
- _____ 3. In a compressional wave, the motion of the particles is *parallel* to the motion of the wave.
- _____ 4. Sound waves carry *work*.
- _____ 5. Sound travels faster at *low* temperatures.
- _____ 6. Sound waves are made up of a series of *crests* and *troughs*.
- _____ 7. In general, sound travels most rapidly through a *gas*.

Directions: *Circle the term that best completes the statement.*

8. As the wavelength of a sound increases, its frequency (increases, decreases, remains the same).
9. As the energy of a sound wave increases, its (frequency, wavelength, amplitude) increases.
10. (Pitch, Loudness, Frequency) is the human perception of how much energy a sound wave carries.
11. If the compressions of a sound wave become more dense, and the rarefactions become less dense, the amplitude of a sound is (increasing, decreasing, unchanged).
12. The distance between the beginning of one compression and the beginning of the next compression is the wave's (wavelength, amplitude, frequency).
13. Some animals use (echo, echolocation, pitch) to navigate and hunt.
14. The pitch of a sound is determined by its (wavelength, amplitude, frequency).
15. As an ambulance, sounding its siren, passes you and moves away, the siren's pitch (increases, decreases, remains the same).
16. You can hear a radio playing in another room before you get to the door because the sound has been (diffracted, refracted, reflected).



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Music

Directions: Answer the following questions on the lines provided.

1. What is the difference between music and noise?

2. What vibrates in each of the following to produce the initial sound?

a. your voice _____

b. a piano _____

c. a trumpet _____

3. What is resonance?

Directions: Fill in the blanks with the terms that best complete the statements.

4. A musical instrument will vibrate with its _____ when played.
5. The guitar body of an acoustic guitar resonates to _____ the sound when a string is plucked.
6. _____ are repeated echoes of sound.
7. The pitch of the lowest sound produced by an instrument is its _____.
8. The shorter the string of a violin, the _____ the pitch.
9. In a xylophone, the longer the bar, the _____ the pitch.
10. When two notes very close together in pitch interfere, they produce regular changes in loudness called _____.
11. The purpose of the _____ ear is to amplify sound.
12. _____ in the inner ear generate nerve impulses that are transmitted to the brain to be interpreted as sound.
13. As people age, their _____ frequency hearing tends to decrease.