

Name _____

The Magical World of Sound: How is it Created?

Short Answer Key

1. Example: A guitar generates sound through vibrations. When you pluck the guitar strings, they vibrate rapidly, causing the surrounding air molecules to vibrate as well. These vibrations create sound waves that we hear as music.
2. When the frequency of vibrations increases, the pitch of the sound becomes higher. For example, plucking a guitar string lightly results in high-frequency vibrations and a high-pitched sound, while plucking it firmly produces lower-frequency vibrations and a lower-pitched sound.
3. Sound travels slower in humid air than in dry air because water vapor molecules in humid air can slow down the movement of sound waves.
4. When sound waves encounter an obstacle, they can be reflected (bounce back), absorbed (converted into other forms of energy), or transmitted (pass through the obstacle).
5. The amplitude of vibrations affects the volume of a sound. Larger amplitude vibrations create louder sounds, while smaller amplitudes result in softer sounds.

