Education with Fun

Name: _____ Date: _____

Sound

Q1. How does sound of a bird differ from roar of a lion?

Ans. _____

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Q2. Which produces sound of a higher pitch: a drum or a whistle? Why?

Ans. _____

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Q3. What frequency can dogs hear but not humans?

Ans. _____

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Q4. Can sound travel through a vacuum? Why or why not?

Ans. _____

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Q5. How does loudness depend on the amplitude of vibrations?

Ans. _____

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Sound

Q1. How does sound of a bird differ from roar of a lion?

Ans. A bird makes a high-pitched sound whereas a lion makes a low-pitched roar. However, the roar of a lion is very loud while the sound of the bird is quite feeble.

Q2. Which produces sound of a higher pitch: a drum or a whistle? Why?

Ans. A drum vibrates with a low frequency. Therefore, it produces a low-pitched sound. On the other hand, a whistle has a high frequency and therefore, produces a sound of higher pitch.

Q3. What frequency can dogs hear but not humans?

Ans. Some animals can hear sounds of frequencies higher than 20,000 Hz. Dogs have this ability. The police use high frequency whistles which dogs can hear but humans cannot.

Q4. Can sound travel through a vacuum? Why or why not?

Ans. Sound cannot travel through a vacuum. A vacuum is an area without any air, like space. So sound cannot travel through space because there is no matter for the vibrations to work in.

Q5. How does loudness depend on the amplitude of vibrations?

Ans. Loudness of sound is proportional to the square of the amplitude of the vibration producing the sound. For example, if the amplitude becomes twice, the loudness increases by a factor of 4.