

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Sound

Q1. Describe how sound is produced by the human voice box (or larynx).

Ans.

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Q2. State the various measures which can be taken to control noise pollution in our surroundings.

Ans.

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Q3. How can you show that sound cannot travel through a vacuum?

Ans.

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## Sound

Q1. Describe how sound is produced by the human voice box (or larynx).

Ans. In humans, the sound is produced by the voice box or the larynx. It is at the upper end of the windpipe. Two vocal cords are stretched across the voice box or larynx in such a way that it leaves a narrow slit between them for the passage of air. When the lungs force air through the slit, the vocal cords vibrate, producing sound.

Q2. State the various measures which can be taken to control noise pollution in our surroundings.

Ans. Measures to limit noise pollution

- i. Silencing devices must be installed in air craft engines, transport vehicles, industrial machines and home appliances.
- ii. Use of automobile horns should be minimised.
- iii. The noisy operations must be conducted away from any residential area.
- iv. Noise producing industries should be set up away from such areas.
- v. TV and music systems should be run at low volumes.

Q3. How can you show that sound cannot travel through a vacuum?

Ans. Take a metal glass tumbler. Place a cell phone in it. Ask your friend to give a ring on this cell phone from another cell phone. Listen to the ring carefully. Now, surround the rim of the tumbler with your hands. Put your mouth on the opening between your hands. Indicate to your friend to give a ring again. Listen to the ring while sucking air from the tumbler. You will observe that the sound become fainter as you suck. If you had been able to suck all the air in the tumbler, the sound would stop completely.

Actually, sound needs a medium to travel. When air has been removed completely from a vessel, it is said that there is vacuum in the vessel. The sound cannot travel through vacuum.