



Affiliation No. 1130703

WORKSHEET-10

CLASS: VIII DIVISION: _____

SUBJECT: Science

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LESSON: 10 – SOUND

Q.1 Define the following

1. Frequency
2. Amplitude
3. Pitch
4. Infrasonic sound
5. Ultrasonic sound

Q.2: Fill in the blanks

1. Sound can be produced by _____ and it cannot travel in _____
2. The speed of sound is greater in _____ than that in _____ and is greatest in _____
3. The membrane of tabla is tightened to _____ pitch of the sound.
4. When we increase the thickness of a vibrating string it's pitch _____.
5. We can't hear the sound above _____ Hz, they are called _____.

Q.3: Case Study

"Why Can't We Hear Certain Sounds?"

Rahul and Priya were conducting an experiment on sound frequencies in their school lab. They used a sound frequency generator to produce sounds of varying frequencies, from 10 Hz to 40,000 Hz. During the experiment, they noticed that they could clearly hear some sounds, but others were completely inaudible. They recorded their observations:

*Both could hear sounds between 20 Hz and 20,000 Hz.

*Sounds below 20 Hz (infrasound) and above 20,000 Hz (ultrasound) were not audible.

Rahul was curious about why their hearing range was limited to this frequency range, while animals like dogs could hear ultrasounds. Priya wondered if age or health could affect their hearing range.

Questions:

1. What is the range of audibility for humans?
2. Why can't humans hear infrasound and ultrasound?
3. How does age affect the ability to hear certain frequencies?
4. Give examples of animals that can hear frequencies beyond the human range.
5. Suggest a practical application of infrasound or ultrasound in daily life.

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