

The softer the material, the more sound will be absorbed by it.

**Knowledge Organiser Year 4 Unit: Sound** 

Sound waves can travel through solids, liquids and gases, but will sound differently depending on what they are travelling through.

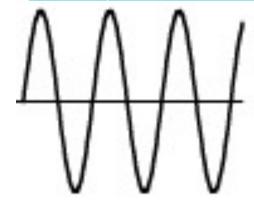
# **ROCKET WORDS**

Learn these words and their definitions.



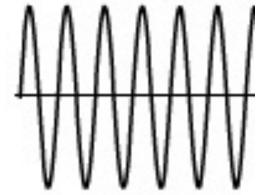
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Key Word	Definition
vibration	A movement back and forth to create a sound.
speed of sound	The distance travelled per unit volume by a sound wave.
soundproof	Something such a material that prevents the passage of sound through it.
sound wave	A form that sound takes as it moves through air, water etc. Recorded on a graph.
frequency	The number of cycles per second that a sound oscillates, recorded in Hertz (hz).
decibel	A unit measurement given to the loudness or intensity of a sound.
eardrum	The part of the ear that vibrates when receiving sounds.
pitch	The quality related who whether sounds are 'high' or 'low.'

## low pitch sound



- The sound waves are wider apart.
- Has a lower frequency in hertz (Hz)
- The sound wave moves slower.
- On a musical instrument, a thicker string will produce a lower sound.

#### high pitch sound



- The sound waves are closer together.
- Has a higher frequency in hertz (Hz)
- The sound wave moves quicker.
- On a musical instrument, a thinner string will produce a higher sound.

# NIT L

### NIT LESSONS



1. Explain what causes sound



2. Describe how sound travels



3. Compare the speed of sound and the speed of light



4. Describe high and low pitched sounds



5. Explore acoustics and how sound travels through solids.



6. Explain how to protect your ears



- If a sound reaches 85 decibels (dB) or stronger, it can permanently damage your hearing.
- Your ear drum can get perforated, or burst, if you don't protect your ears.
- Ear defenders are used by workmen and those who work in noisy environments to protect their ears from the sound.

