

Nova's Sound Science Flashcards

Learning objective: To identify how sound is made, how it travels, and how we hear, in line with Year 6 Science requirements.

Use these flashcards to test your knowledge of sound. Read the question on the front, think of the answer, then check the back to see if you are correct!

What causes sound to be created?

Sound is created when an object vibrates, causing the air particles around it to move.

What do we call the substance (solid, liquid, or gas) that sound travels through?

A medium.

True or False: Sound can travel through a vacuum (empty space).

False. Sound requires particles to vibrate, so it cannot travel through a vacuum.

How does increasing the vibration frequency affect the pitch of a sound?

A higher frequency results in a higher pitch, and a lower frequency results in a lower pitch.

What determines the volume or loudness of a sound?

The amplitude (the size) of the vibration.

Which unit is used to measure the loudness of sound?

Decibels (dB).

What is the name of the thin membrane in the ear that vibrates when sound waves hit it?

The eardrum.

Why does sound travel faster through solids than through gases?

Because the particles in a solid are packed more closely together, allowing vibrations to pass between them more quickly.

What happens to the volume of a sound as you move further away from the source?

The sound becomes quieter because the sound waves spread out and lose energy.

Can sound reflect off hard surfaces? What is this phenomenon called?

Yes, it is called an echo.

How do we hear sound?

Sound waves enter the ear canal, cause the eardrum to vibrate, and these vibrations are sent to the brain to be interpreted.

If a guitar string is tightened, what happens to the pitch of the note it produces?

The pitch becomes higher because the string vibrates at a higher frequency.