

Nova's Sound Adventure: Grade 4 Science Flashcards

Learning objective: To identify how sounds are made, how they travel, and how we hear them, in line with the Grade 4 Science curriculum.

Use these flashcards to test your knowledge about sound. Read the question on the front, try to answer it, then check the back for the explanation provided by Nova the owl.

What causes sound to be created?

Sound is created by vibrations, which are rapid back-and-forth movements of an object.

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

False. Sound needs a medium, such as a solid, liquid, or gas, to travel through.

How does the pitch of a sound change if the vibration is faster?

The faster the vibration, the higher the pitch of the sound.

What do we call the 'loudness' or 'softness' of a sound?

This is called volume, which is determined by the amplitude (the size) of the vibration.

Which state of matter does sound usually travel through the fastest?

Sound travels fastest through solids because the particles are packed closely together.

What is the name of the part of the ear that vibrates when sound waves hit it?

The eardrum.

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

The volume decreases (gets quieter) as the sound waves spread out and lose energy.

What unit is used to measure the intensity or loudness of sound?

Decibels (dB).

Can sound travel through water?

Yes, sound travels through water, which is a liquid medium.

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

The pitch becomes higher because the string vibrates more quickly.

What is a 'sound wave'?

A sound wave is the pattern of vibration that moves through the air or another medium to carry sound to our ears.

Why do we see lightning before we hear thunder?

Light travels much faster than sound, so the light reaches our eyes before the sound of the thunder reaches our ears.