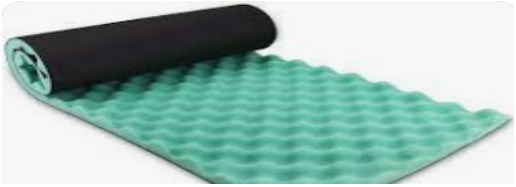
Science Knowledge Organiser Sound (Term 4) Year 4

Our learning

In our science lessons this term, we will be learning about sound. This is part of the **physics** aspect of science. Through our learning we will be considering the cause and effect of simple scientific processes.

We will learn how sound is created and how we get to hear it in our ears.

Sounds travel in waves to our ears.



Foam is a good insulator of sound

Information

Sounds are created by vibrations and can be made in different ways.

Sounds created by vibrations travel in waves, through different materials, to the ear.

Vibrations travel in waves through the ear to the brain.

Vibrations cause part of the ear to vibrate, allowing us to hear (sense) the sound.

The distance from the sound source (where it starts) affects the volume of the sound. The sound is louder when closer to the source of the sound.

The pitch of a sound can vary. For example the longer, looser or thicker the object is, the lower the pitch of the sound will be. This is because the vibrations will be slower.

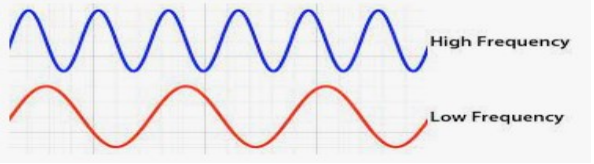
Some materials insulate sound better than others.

As a scientist I will...

- Use data to make predictions, pose new questions and suggest improvements to my enquiries.
- Answer questions using scientific evidence.
- Choose suitable ways to record and present information

Vocabulary

Vibration - Shaking back and forth
Sound wave– Caused when an object vibrates the air particles called molecules close to it. This makes the molecules next to them vibrate and so on, forming a sound wave
Volume – How loud or quiet a sound is
Pitch – How high or low a sound is
Tone - A repeating sound with a definite pitch
Insulation - Material that prevents sound waves from travelling
Faint- A quiet sound
Loud - A strong sound
Frequency - How many waves there are per second. The higher the frequency, the more quickly air particles vibrate and the higher the pitch.



Sound waves