

## Vocabulary

## Year 4 Spring 1 Science

Vibration	A quick movement back and forth
Sound wave	Vibrations travelling from a sound source
Volume	The loudness of a sound
Amplitude	The size of a vibration. A larger amplitude = a larger sound
Pitch	How high or low a sound is
Ear	An organ used for hearing
Particles	Solids, Liquids and Gases are made of particles. They are so small we are unable to see them.
Distance	A measurement of length between two points.
Soundproof	To prevent sound from passing through.
Absorb Sound	To take in sound energy. Absorbent materials have the effect of muffling sound.
Vacuum	A space where there is nothing. There are no particles in a vacuum
Eardrum	A part of the ear which is a thin, tough layer or tissue that is stretched out like a drum skin. It separates the outer ear from the middle and inner ear. Sound waves make the eardrum vibrate.

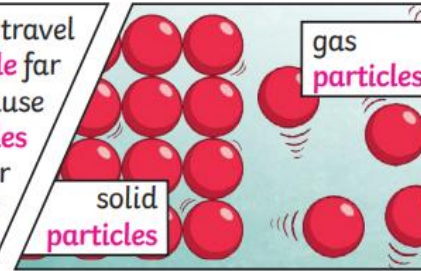
## Key knowledge

### Sound

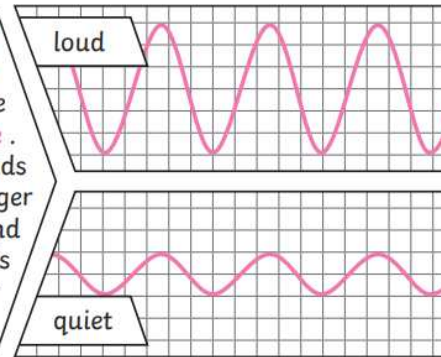
Sound can travel through solids, liquids and gases. Sound travels as a wave, vibrating the particles in the medium it is travelling in. Sound cannot travel through a vacuum.

## Diagrams and pictures

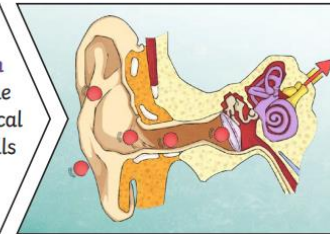
Sound energy can travel from **particle to particle** far easier in a solid because the **vibrating particles** are closer together than in other states of matter.



The size of the **vibration** is called the **amplitude**. Louder sounds have a larger **amplitude**, and quieter sounds have a smaller **amplitude**.



Inside your **ear**, the **vibrations** hit the **eardrum** and are then passed to the middle and then the inner **ear**. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.



**Pitch** is a measure of how high or low a sound is. A whistle being blown creates a high-**pitched** sound. A rumble of thunder is an example of a low-**pitched** sound.



## Working Scientifically



Asking Questions



Making Predictions



Setting Up Tests



Observing and Measuring



Recording Data



Interpreting and Communicating Results



Evaluating

## Links

Links to other topics ...

Year 1 – Animals including Humans – The Human Body  
In Key Stage 3

You will learn more about sound when you study Physics in secondary school.