Sound

What our children should already know

- Explore how things work—EYFS
- Describe what they can see, hear and feel whilst outside—EYFS
- Identify, name, draw and label the basic parts of the human body and which parts are associated with each sense—Year 1

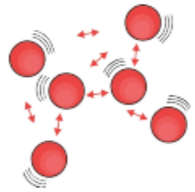
Choices

- Choosing which materials and objects to test out for their investigations.
- What instrument shall I make to prove difference in pitch?

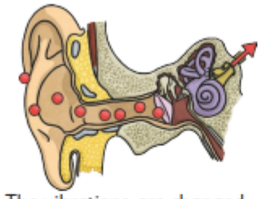
Key Vocabulary

Vibration	A movement backwards and forwards.
Sound wave	Vibrations travelling from a sound source.
Volume	The loudness of sound.
Amplitude	The size of the vibration. Larger amplitude = larger sound.
Pitch	How low or high a sound is.
Ear	An organ used for hearing.
Particles	Solids, liquids and gases are made up of particles. They are too small to see.
Distance	A measurement of length between two points.
Soundproof	To prevent sound from passing.
Absorb sound	To take in sound energy. Absorbent materials have the effect of the 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 of tissue that is stretched out like a drum skin. It separates the outer and inner ear. Sound waves make the drum vibrate.
Faint	A sound that is barely there
Muffle	Cover or wrap up to reduce loudness

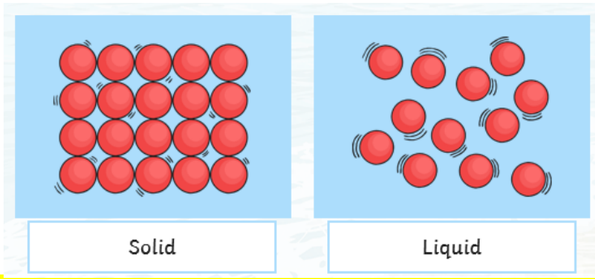
Diagrams

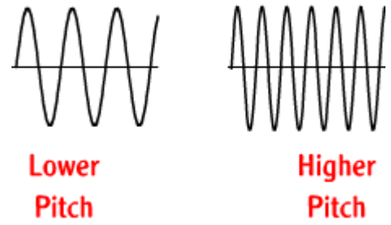


The vibrations pass from particle to particle.



The vibrations are changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound!





Lesson Sequence

L1	WALT explore what we know about sound.
L2	WALT identify how sounds are made and travel to the ear.
L3	WALT explore how to change pitch.
L4	WALT investigate how sounds
L5	WALT explore vibrations travelling
L6	WALT find patterns between the pitch of a sound.

Key Knowledge

- Sounds are heard when they enter our ears
- Sounds can travel through solids, liquids and air/gas by making the materials vibrate.
- Sound travel can be reduced by changing the material that the vibrations travel through.
- Sound travel can be blocked.
- Sounds can be high or low pitched.
- The pitch of a sound can be altered.
- Pitch can be altered either by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column.
- Sounds travel away from their source in all directions.
- Vibrations may not always be visible to the naked eye.

Sound

Describe how sound travels.	How are sounds heard?	Sound travels out in all directions. True or false?	If an object is shorter, what happens to the pitch?
Why is sound important?	Define pitch	What happens between sound and distance?	What is volume?
Write 3 facts about sound.	Explain what a hydrophone is and how it works.	Does sound travel in space?	Does sound travel faster in a solid, liquid or gas?

One Point	Two Points	Three Points	Four Points