Knowledge Organiser		
Year: 4	**Term: Summer 1**	**Topic: Sound (Science)**

Key Knowledge

Sound vibrations MUST travel through something (a medium) to be heard – this can be a liquid, a solid or a gas.

Sound changes speed depending on the medium it is travelling in.

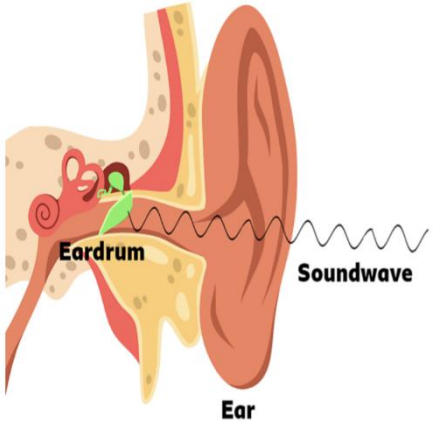
We hear sounds because vibrations travel from the object through the air all the way to your ears.

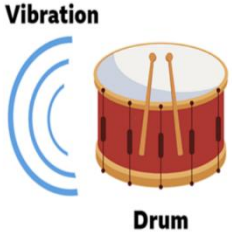
Sound travels in waves at different speeds. The faster the sound wave vibrates the higher the pitch.

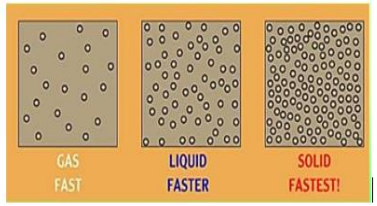
Volume of sound is measured in decibels (db) Volume is how loud or quiet a sound is. The larger the vibration, the louder the sound.

Soundproofing is the art of stopping sound travelling. In general, soft materials (like cloths) are good acoustic insulators. The more of this type of material in a room, the better the sound will be absorbed.

Sounds traveling over a distance get quieter but we can still hear them.







Sound can travel through solids, liquids and gases – it travels fastest through solids.

Vocabulary	Meaning
sound	Vibrations that travel through air or another medium and can be heard when they reach the ear.
sound waves	How vibrations travel through the air or a liquid/solid.
vibration	The backward and forward movement of particles as they travel.
acoustics	The properties of a room/ building which determine how well sound is transmitted.
ampitheatre	An outdoor theatre with seating in tiers around a stage.
frequency	The number of times per second that a sound wave repeats itself.
deaf	Not being able to hear sound.
pitch	How low or high the sound is.
decibels	The standard measure for sound.
volume	How loud or quiet something is.
sound proofing	How to reduce the spreading and travel of sound.
transmit	When sound waves enter the ear and they are turned into messages for the brain so the sound can be heard and understood.

Learning Objectives			
Lesson 1	I know sounds are made by vibrations.		
Lesson 2	I know that vibrations from sounds travel through a medium to the ear and this means we can hear. I know that sounds get fainter as the distance from the sound source increases.		
Lesson 3	I know there are patterns between the pitch of a sound and the features of the object that it is made from.		
Lesson 4	I know there are patterns between the volume of a sound and the strength of the vibrations that produced it.		
Lesson 5	I know sound waves can be blocked and this reduces sound.		
Lesson 6	I can show what I have learnt		