



## **SCIENCE KNOWLEDGE ORGANISER**



itapes (sti

Cochles

Eustachian tul

	ESSENTIAL VOCABULARY
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 louder sound
Pitch	How low or high a sound is.
Ear	An organ used for hearing.
Particles	Solids, liquids and gases are made of particles. They are so small we can't see them.
Distance	A measurement of length between two points.
Soundproof	To prevent or stop sound 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.



#### Key Questions

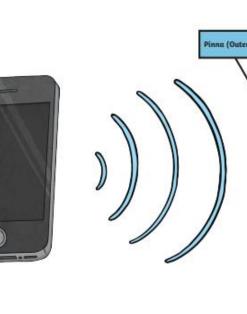
How do we hear sound? What is sound? What materials are best for soundproofing? How do animals rely on sound?

## Key Themes

- How sound travels
- How sound changes dependant on distance from source.
- Dangers of sound
- Animal use of sound (echolocation)

### **Useful Diagrams**

# **How Does Hearing Work?**



When an object gives off sound ît vibrates.	÷	The vibrations bump into air molecules.	*	A wave of these vibrations travel to the eardrum.	÷	The eardrum vibrates and sends the vibrations to three tiny bones in the ear.	+	The bones amplify the vibration and send it to the cochlea.	]-	The cochlea is filled with fluid and tiny hairs.	+	The hairs bump into each other and an electrical impulse is created.	+	The impulse send: a message to the brain via the auditory nerve and is understaod as sounds.
---	---	---	---	---	---	---	---	--	----	--	---	---	---	---