



Year 4 Science Summer 1 Unit Sound

Key Scientific Skills	Year 4 Sound
Ask relevant questions and using different types of scientific enquiries to answer them	
Set up simple practical enquiries, comparative and fair tests	
Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including loggers	
Gather, record, classify and present data in a variety of ways to help in answering questions	
Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	
Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions	
Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	
Identify differences, similarities or changes related to simple scientific ideas and processes	
Use straightforward scientific evidence to answer questions or to support their findings	

- ### Lesson Sequence
- 1. Identify how sound is made**
 - 2. Explore how vibrations from sounds travel through a medium to the ear**
 - 3. Explore sound insulation**
 - 4. Explore volume**
 - 5. Explore pitch**
 - 6. Explore sounds**

Pitch

The pitch of a sound is how high or low it is. A squeak of mouse has a high pitch A roar of a lion has a low pitch.

A high pitch sound is made because it has a high frequency. The sound source vibrates many times a second.

How sounds are made and travel

When objects vibrate, a sound is made. The vibration makes the air around the object vibrate and the air vibrations enter your ear. These are called sound waves. If an object is making a sound, a part of it is vibrating, even if you cannot see the vibrations. Sound waves travel through a medium (such as air, water, glass, stone, and brick).

How do we hear?

The sound waves travel to the ear and make the eardrums vibrate. Messages are sent to the brain which recognises the vibrations as sounds.

Rocket Words

	Vibration	Particles moving very quickly
	Medium	A substance such as air, water or a solid
	Source	The start of something
	Energy	The power to make something work, move or grow
	Materials	Anything used in making something or building
	Reflect	Bounce back from a surface
	Volume	How loud or quiet a sound is
	Decibels	The unit to measure loudness
	Pitch	How high or low a sound is
	Instruments	Objects used to play music
	Particles	Tiny pieces that make up something larger
	Sound source	The object that started the sound

Progression of Knowledge

Volume

The volume of a sound is how loud or quiet it is. Quieter sounds have a smaller amplitude and less energy (smaller vibrations) and louder sounds have a bigger amplitude and more energy. The closer we are to a sound source the louder it will be. A train arriving at a station sounds loud. The further away from a sound the fainter it will be. A train in the distance sounds quieter.

Unit	YEAR 4
Sound	Identify how sounds are made, associating some of them with something vibrating Recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and features of the object that produced it Find patterns between the volume of a sound and the strength of the vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases