

National Curriculum Objectives:

- ✓ 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

Working scientifically:

- ✓ asking relevant questions and using different types of scientific enquiries to answer them
- ✓ setting up simple practical enquiries, comparative and fair tests
- ✓ making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- ✓ gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- ✓ recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- ✓ reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- ✓ using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- ✓ identifying differences, similarities or changes related to simple scientific ideas and processes
- ✓ using straightforward scientific evidence to answer questions or to support their findings.

Science: Sound.

Y4 summer term



Key Vocabulary:

Frequency	The measurement of the number of times that a repeated event occurs per unit of time.
High pitch	High-pitched sounds are produced by objects that vibrate at a quicker rate.
Loud	Having a large amount of sound.
Low pitch	Low-pitched sounds are produced by objects that vibrate at a slower rate.
Soft	A sound wave of less energy.
Sound wave	Vibrating energy that look like waves. The waves are made of microscopic building blocks called molecules. Sound waves travel back and forth through solids, liquids and gases to get to another location. That's how you can hear sounds that are close to you, happening outside or underwater.
Speaker	A device for converting electrical energy into acoustical signal energy that is radiated into a room or open air.
Tone	A vocal or instrumental sound that denotes its pitch.
Vibration	Sound is made up of vibrations, or sound waves, that we can hear.
Volume	A measure of how loud or soft something sounds and is related to the strength of the vibrations.

Sticky knowledge

- ✓ Sound travels more slowly than light.
- ✓ Sound cannot travel in space there is nothing for the sound to bounce off.
- ✓ Sound travels faster through water than air.
- ✓ The loudest sound ever was a volcanic eruption in 1883.

Sequence of Learning:

Objectives (key knowledge):

Lesson 1 To know how sounds are made, associating some of them with something vibrating.	Lesson 2 To learn that vibrations from sounds travel through a medium to the ear.	Lesson 3 To know what pitch is and how the volume can be changed by the object used.	Lesson 4 To be able to find patterns between the volume of a sound and the strength of the vibrations that produced it. Task: to drop different objects into a metal bowl. Is the highest the drop the loudest sound?	Lesson 5 To know that sound gets fainter the further away from the sound source. To conduct a fair test.	Lesson 6 To be able to record findings. To be able to report on findings. To set up simple practical enquires. Task: circus of sounds.
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