

Sound- Year 4- Kapow unit- Sound and vibrations

Previous learning

Key Vocabulary for Year 4	
Volume	
Vibration	
Wave	
Pitch	
Tone	
Speaker	

Previous vocabulary

Useful links

- <https://www.stem.org.uk/resources/community/collecion/12746/year-4-sound>
- https://www.outstandingscience.co.uk/index.php?action=view_page&page=view_unit&unit=4d
- <https://www.hamilton-trust.org.uk/science/year-4-science/sound-listen/>

Key scientists you could look at...

Aristotle

Scientific skills

Working scientifically	Questioning and enquiry	Observing and measuring	Investigating	Recording	Grouping and classifying
To use practical scientific method, processes and skills	Ask relevant questions and use different types of scientific enquiry to answer them	Make systematic and careful observations, take accurate measurements using standard and non-standard units and a range of equipment, including thermometers and data loggers. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Help make decisions about what observations and equipment they will need to use.	Set up simple practical experiments, comparative and fair tests. Recognise when a simple fair test is necessary and help to decide how to set it up. Be able to think of more than one variable factor.	Gather, record, classify and present data in a variety of ways to answer a question. Record simple findings using scientific vocabulary, drawings, labelled diagrams, keys, bar charts and tables. Report on findings including oral and written explanations, displays or presentation of results and conclusions. Use notes, simple tables and standard units to decide how to record and analyse data.	Identify differences, similarities and changes related to scientific ideas and processes. Talk about criteria for grouping, sorting and classifying and use simple keys. Compare and group according to behaviour or properties, based on testing.

Experiment and activity ideas

What factors affect the pitch of a sound?	Investigate how sounds travel through different materials	Design and create a sound generator	Sound walk	Make a string telephone
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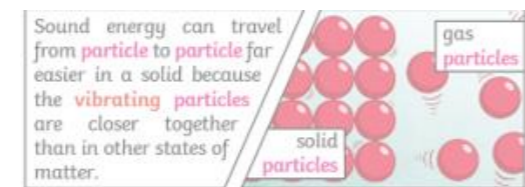
Knowledge- objectives

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 volume of a sound and the strength of the vibrations that produced it
 Recognise that sounds get fainter as the distance from the sound increases.

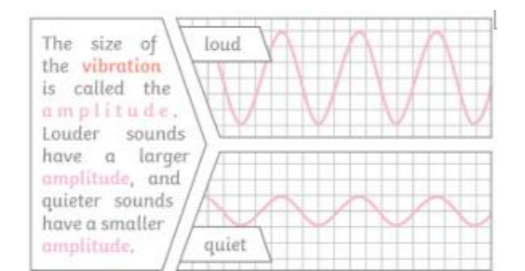
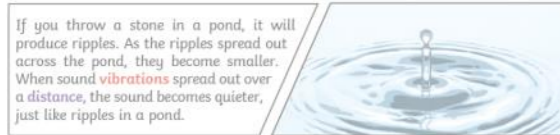
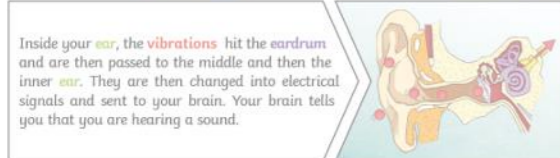
Resources in school

Tuning forks, music resources

Key Knowledge
 Sound can travel through solids, liquids and gases. Sound travels as a wave, vibrating the particles in the medium it is travelling in. Sound cannot travel through a vacuum.



Key Knowledge
 Sound is a type of energy. Sounds are created by vibrations. The louder the sound, the bigger the vibration.



You can change the pitch of a sound in different ways depending on the type of instrument you are playing. For example, if you are playing a xylophone, striking the smaller bars with the beater causes faster vibrations and so a higher pitched note. Striking the larger bars causes slower vibrations and produces a lower note.



Pitch is a measure of how high or low a sound is. A whistle being blown creates a high-pitched sound. A rumble of thunder is an example of a low-pitched sound.

