**Sound**

**NC Statutory Guidance**

Pupils should be taught to:

* 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**

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

* 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.

**Resources**

Twinkl PlanIt to be adapted.

**Lesson Overview (Statutory in Bold)**

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| WALT | Knowledge to be Taught | Skills to be Taught and Investigations | Vocabulary |
| Describe and explain sound sources. | **Identify how sounds are made, associating some of them with something vibrating.** | Make systematic and careful observations using data loggers. Describe sounds and their sources.Use data logger to record sound levels around the school. Record in bar chart. | volumevibrate vibration  |
| Explain how different sounds travel. | **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.** | Present information about how sound travels, based on scientific evidence. | travelwaveobstaclesamplitude particles |
| Explore ways to change the pitch of a sound. | **Find patterns between the pitch of a sound and features of the object that produced it.** | **Use understanding of pitch to create panpipes out of straws of different lengths to create different pitches.**  | pitch  |
| Investigate how sound changes over distance. | **Recognise that sounds get fainter as the distance from the sound source increases.** | Use dataloggers to record effects of distance on volume. | distance |
| Investigate ways to absorb sound. | Recognise that different materials affect how sound travels. | Investigate how different materials affect how sound travels. Write prediction, record results in a table and present results. | absorbsoundproof |
| Investigate sound using musical instruments. | Explore different ways to create sounds using musical instruments. | Use knowledge to create musical instrument and explain how it works. | instrumentsvolumepitch |