

Science
Year 3 and 4
Summer 1

Topic Sound	
Rationale During this unit of work, children will learn how vibrations cause sounds and how sounds travel through different mediums at different speeds. They will explore how sounds can change in pitch and loudness and be able to explain this using scientific language. They will develop their scientific skills by planning two fair test investigations to answer the questions: which material is the best at muffling sounds and does the size of the pinnae affect the volume of the sound? Children will also learn what happens to sound vibrations when they reach the ear	
NC Objective <ul style="list-style-type: none"> • 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 	
Links to other Subject/Topics. English – Inform and Instructions. Computing – Multimedia Music	
Inspiration for Aspiration Musician, Music Teacher, Music Technician, Sound Engineer, Radio Presenter, DJ,	
Key Content <ul style="list-style-type: none"> • How are sounds made? • What is a sound vibration? • What is inside your ear? • Does the size of the pinna affect the volume of the sound? • What is pitch? • What is volume? • Which material is best at muffling sound? 	
Concepts	
Science	1
Plants	2
Animals, including Humans	3
Materials	4
Light	5
Sound	6
Electricity	
Forces	
Earth and Space	
Skills Year 2 <ul style="list-style-type: none"> • Asks simple questions and recognise that they can be answered in different ways. • Observe closely, using simple equipment • Gather and record data to help in answering questions • Identify and classify 	Skills <ul style="list-style-type: none"> • Ask relevant questions and use different types of scientific enquiries to answer them • Explore everyday phenomena and the relationships between living things and familiar environments. • Raise their own questions about the world around them • Make some decisions about which types of enquiry will be the best way of answering questions

<ul style="list-style-type: none"> • Use their observations and ideas to suggest answers to questions • Use secondary sources of information such as the internet or books. • Use a growing scientific vocabulary. 	<ul style="list-style-type: none"> • Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment • Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them • Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used • Notice a pattern in results • Set up simple practical enquiries, comparative and fair tests • Recognise when a simple fair test is necessary and help to set it up • Think of more than one variable factor • 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 notes, simple tables and standard units and help to decide how to record and analyse their data. • Record results in tables and bar charts • Identify differences, similarities or changes • Talk about criteria for grouping, sorting and classifying and use simple keys • Compare and group according to behaviour or properties • Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations • Use results to draw simple conclusions, make predictions, and suggest improvements • Use scientific evidence to answer questions or to support their findings • With help, look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions • See a pattern in my results • Say what they found out, linking cause and effect • Say how they could make it better • Answer questions from what they have found out • 	
<p>Year 2 Vocabulary</p> <p>Investigate, test, observe, equipment, describe, check, key, sequence, label, diagram, discuss, propose, question, experiment</p>	<p>Year 3 and 4 Topic Vocabulary</p> <p>Volume Pitch Vibration Material Distance High Low Eardrum Brain Pinna Cochlea</p>	<p>Year 3 and 4 Scientific Vocabulary</p> <p>practical enquiries comparative fair tests observations standard units equipment record classify present data labelled diagrams results conclusions</p>
<p>By the end of the topic <u>Year 3</u> children will with support:-</p> <ul style="list-style-type: none"> • 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 	<p>By the end of the topic <u>Year 4</u> children will: -</p> <ul style="list-style-type: none"> • 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 	

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Assessment

Grammarsaurus Cumulative Quiz and assessments. Teacher observations and questioning. Photographic evidence.