



Class 2

Madron Daniel Science Small Step Progression

Sound – Year 4 Unit – Year B						
Retrieval vocab: N/A New Vocab: sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation			Previous learning None		Links with Vision and Values. <i>Stimulate in every child a sense of curiosity and excitement about the world</i>	
	Working scientifically/ enquiry focus	Curriculum Strand/ Focus	Small step objective	Previous learning within the unit.	Lesson content	Outcome
1	Identifying and classifying	Sound	To be able to identify how sounds are made, associating some of them with something vibrating.	N/A	How are sounds made?	The children can: Record observations when making sound, see and/or feel the vibration and link these to the sound produced.
2	Comparative testing	Sound	To recognise that vibrations from sounds travel through a medium to the ear.	<i>Record observations when making sound, see and/or feel the vibration and link these to the sound produced.</i>	Can sound only travel through air (gas)?	The children can: Explain how sound can travel through different mediums (gas, liquid, solid) from its source to the ear.
3	Pattern seeking	Sound	To find patterns between the pitch of a sound and features of the object that produced it.	<i>As above</i> <i>Explain how sound can travel through different mediums (gas, liquid, solid) from its source to the ear. solids, liquids and gases can carry sound, but sound cannot travel through a vacuum (an area empty of matter).</i> <i>-The vibrations cause parts of our body inside our ears to vibrate, allowing us to hear (sense) the sound.</i>	What is pitch? How can we change it?	The children can: Demonstrate how the pitch of a sound is linked to the features of the object that produced it.



Class 2

Madron Daniel Science Small Step Progression

4	Pattern seeking	Sound	To find patterns between the volume of a sound and the strength of the vibrations that produced it.	<i>As above Demonstrate how the pitch of a sound is linked to the features of the object that produced it. Pitch is the highness or lowness of a sound and is affected by features of objects producing the sounds. eg smaller objects usually produce higher pitched sounds.</i>	What is volume? How can we record the size of the vibrations?	The children can: Give examples of how to change the volume of a sound by increasing the size of vibrations. Record the volume of sounds with varying strengths of vibrations, in decibels
5	Comparative testing	Sound	To recognise that sounds get fainter as the distance from the sound source increases.	<i>As above Give examples of how to change the volume of a sound by increasing the size of vibrations. Record the volume of sounds with varying strengths of vibrations, in decibels</i>	Why do far away sounds seem faint?	The children can: Investigate to show how sounds get fainter as the distance from the sound source increases. Give a simple explanation of why this happens.
6	Fair testing	Sound	Investigate the best material for absorbing sound and explain why some materials absorb sounds.	<i>As above Investigate to show how sounds get fainter as the distance from the sound source increases. The loudness (volume) of the sound depends on the strength (size) of vibrations which decreases as they travel through the medium.</i>	Which material make the best insulator of sound?	The children can: Set up an investigation to test materials for their sound insulating properties.
7	Fair testing	Sound	Draw conclusions from the investigation into sound insulators and display results in a bar chart.	<i>As above Set up an investigation to test materials for their sound insulating properties. sounds decrease in volume as you move away from the source. A sound insulator is a material which blocks sound effectively</i>	What conclusions can we draw from our investigation? How can we display our results?	The Children can: Write a conclusion from the investigation into sound insulators and display results in a bar chart.



Class 2

Madron Daniel Science Small Step Progression

8		Sound	Design and create a musical instrument and write a set of instructions explaining how it works to demonstrate understanding of sound.	<i>As above</i> <i>Write a conclusion from the investigation into sound insulators and display results in a bar chart.</i>	What musical instruments could we create?	The children can: Design and create a musical instrument and write instructions to show case their understanding of how sound works.
---	--	-------	---	---	---	---