Our Intent is: To develop inquisitive children who are excited about investigating with curiosity, "How can scientific enquiry explain the world?" Exploring answers by gathering and analysing evidence.

Forton Primary School
Science

Clougha Class Summer 1 & 2 Year B	**N.C. LINKS: Sound –** 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.
Etymology – **vibrate –** from Latin vibrat – means 'moved to and fro'.	
 Sound All Around By Susan Hughes and Ellen Rooney	
Key Concept: Sound Key Question: How do we hear different sounds? How can we change sound?	
Unit Overview:	Vocabulary:

Our Intent is: To develop inquisitive children who are excited about investigating with curiosity, "How can scientific enquiry explain the world?" Exploring answers by gathering and analysing evidence.

<table>
<tr>
<td>

- How sounds are made and how they travel 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 features of the object that produced it.
- Recognise that sounds get fainter as the distance from the sound source increases.

</td>
<td>

Subject Specific:

Vibrate, vibration, vibrating, sound wave, sound energy, volume, amplitude, pitch, ear, particles, distance, soundproof, absorb sound, vacuum, eardrum

</td>
<td>

Working Scientifically:

Research

Comparative and fair test

Systematic Careful observation

Thermometer Data Gather

Record Classify Labelled diagrams

Keys Bar charts Tables

Conclusion Prediction difference

Similarities Changes evidence

</td>
</tr>
<tr>
<td>

New Knowledge Progression:

- Vibrations.
- Identify how sounds are made, associating some of them with something vibrating.
- Recognise that vibrations from sounds travel through a medium to the ear.

</td>
<td colspan="2">

Building on Prior learning KS1:

- I Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, water, rock, paper and cardboard for particular uses.

</td>
</tr>
</table>

Our Intent is: To develop inquisitive children who are excited about investigating with curiosity, "How can scientific enquiry explain the world?" Exploring answers by gathering and analysing evidence.

• 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. • Recognise that sounds can be made in a variety of ways (pluck, bang, shake, blow) using a variety of things (instruments, everyday materials, body). • Sounds travel away from their source in all directions. • Vibrations may not always be visible to the naked eye. • Pitch • Find patterns between the pitch of a sound and features of the object that produced it. • Sounds can be high or low pitched. • The pitch of a sound can be altered. • Pitch can be altered either by changing the material, tension, thickness or length of vibrating objects or changing the length of a vibrating air column. • Muffling/blocking sounds • Recognise that vibrations from sounds travel through a medium to the ear. • Sounds are heard when they enter our ears (although the structure of the ear is not important key learning at this age phase). • Sounds can travel through solids, liquids and air/gas by making the materials vibrate.	• Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (applying a force). • Some materials can be found naturally; others have to be made.

Our Intent is: To develop inquisitive children who are excited about investigating with curiosity, "How can scientific enquiry explain the world?" Exploring answers by gathering and analysing evidence.

- Sound travel can be reduced by changing the material that the vibrations travel through.
- Sound travel can be blocked..

Key Skills (Disciplinary)

- Suggest their own ideas on a concept and compare these with what they observe / find out.
- Use observations to suggest what to do next.
- Discuss ideas and develop descriptions from their observations using relevant scientific language and vocabulary.
- Observe and record relationships between structure and function or between different parts of a processes.
- *(e.g. evaporation and condensation, different food chains, different electrical circuits).*
- Ask / raise their own relevant questions with increasing confidence and independence that can be explored, observed, tested or investigated further.
- Ask questions such as 'What will happen if…?" or 'What if we changed…?.
- Choose / select a relevant question that can be answered [by research or experiment / test].
- Suggest their own ideas on a concept and compare these with models or images.
- Increasingly support, listen to and acknowledge others in the group.
- Build on / add to someone else's idea to improve a plan.

Sequence of Lessons:

1. LO – To describe and explain different sound sources.
2. LO – To explain how different sounds travel.
3. LO – To explore ways to change the pitch of a sound.
4. LO – To recognise that sounds get fainter as the distance from the sound increases.
5. LO – To investigate different ways to absorb sound.
6. LO – To create make a musical instrument to play different sounds.

Our Intent is: To develop inquisitive children who are excited about investigating with curiosity, "How can scientific enquiry explain the world?" Exploring answers by gathering and analysing evidence.

Enhancements: Science and Industry Museum	End of Unit Outcome: Making musical instruments. Children will make their own musical instrument to investigate and make sounds with.
Oral Assessments: Can you describe and explain different sound sources? Can you explain how different sounds travel? Can you explain ways to change the pitch of a sound? Why do sounds get fainter as the distance from the sound increases? Can you name different ways to absorb sound?	