



YEAR 4 SCIENCE

Sound

Our Science curriculum aims to enthuse children and help them to be curious and develop a sense of excitement about the world. Through a range of teaching, learning and extra-curricular opportunities, children will develop scientific knowledge and conceptual understanding to recognise the uses and implications of Science, today and for the future. We encourage children to ask their own questions; predict how things will behave and analyse causes, using Science to explain what is happening.

Characteristics of an Effective Learner

Courage
Commitment
Collaboration
Creativity
Curiosity

Prior Learning:

- In year 1 children understand that we hear because sounds travel in waves into our ear, and our ear sends a message to our brain. They recognise that sounds are louder when they are closer to our ears.
- Children will have been introduced to the term 'pitch' in music

Key Vocabulary taught in this unit:

Sound, sound source, vibrate/ion, data, decibel, gas, liquid, pitch, solid, fair, observe, pluck, measure, hear, fair, predict, observe, explain, enquiry, conclusion

Key Questions:

- Q: How are sounds made?
- Q: How do sounds reach our ears?
- Q: How can we change the volume of a sound?
- Q: How does the volume of a sound change as we move away from the source?
- Q: How can we change the pitch of a sound?
- Q: What affects the pitch of a plucked note?

Intent: What do we want the children to know, be able to do by the time they complete this unit?

- Children 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:

- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including [thermometers and] data loggers.
- 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.

Impact / Outcome:

What will the final product / result be?

Children will learn about the methods scientists use to build scientific knowledge about sound.

They will learn that scientists use the observations and measurements they make to identify links and patterns in the way sounds are made and how they sound.

They will develop an understanding of the following type of enquiry: comparative testing.

P4C Inquiry (where appropriate)