

Science: Sound
Year 4 Autumn 2





Key Vocabulary

vibrate	move continuously and rapidly to and fro
travel	move, usually in a constant or predictable way
pitch	how high or low a sound is, governed by the rate of vibrations producing it. More vibrations = higher pitch.
volume	how loud or quiet something is
insulation	preventing sound from travelling
sound wave	an invisible wave created when molecules vibrate to send a sound through the air
anvil	the middle of three small bones in the middle ear
hammer	the largest of three small bones in the middle ear
stirrup	the smallest of three small bones in the middle ear, which is involved in sending sound vibrations to the inner ear

Why don't you…

- Create your own musical instrument?
- Create a poster to explain how we hear sounds?
- Go on a sound hunt and list all the different sounds you hear?

Website Links

Enquiry Questions

- Do sounds get louder the closer you are to them?
- What materials are best at conducting sound?
- Which animal has the best hearing?
- Which material would you wrap yourself in if you didn't want to hear any sound?
- Why do strings on a guitar sound different?
- How does the pitch change depending on the instrument being played?
- Bob works in a noisy factory. What advice would you give him?
- How are echoes created?

Scientific Concepts

Structure and Function
Anything composed of parts arranged together in some way has a structure. A function is a specific job or procedure.
Processes
A series of actions or steps taken in order to achieve a particular end.
The process of increasing in size.

Scientific Knowledge

- 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.

Scientific Skills

Use different ideas; suggest how to find something out.
Make and record a prediction before testing.
Plan a fair test and explain why it was fair.
Set up a simple fair test to make comparisons,
Explain why they need to collect information to answer a question.
Obtain and present evidence.
Measure using different equipment and units of measure.
Record their observations in different ways.
Describe what they have found using scientific words.
Make accurate measurements using standard units.
Use a range of equipment (including a data-logger) in a simple test.