



What I Need to Know: Y4 Science - Sound

We nurture the curiosity to learn, the courage to lead and the compassion to care.

Name:	Class:
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We will investigate how sounds are made, how they travel and how pitch, volume, materials and distance can change what we hear. We will use practical enquiries and evidence to explain how sound works and how it is used in everyday life.

Create, Communicate & Evaluate

8. Apply and communicate scientific understanding of sound through an explanation, investigation or demonstration, using accurate vocabulary and evidence.

Question, Reason, Discuss & Explain

7. Explain how scientific understanding of sound is used in everyday life and technology.
6. Use observations and results to explain why sounds become fainter as distance from the source increases.
5. Plan and carry out a fair test to compare materials, then use evidence to judge which reduce sound most effectively.
4. Identify and explain patterns between the strength of vibrations and the volume of sound.

Know & Do

3. Identify patterns between pitch and features of the object producing the sound.
2. Recognise that sound vibrations travel through a medium to reach our ears.
1. Know that sounds are produced by vibrating objects and recognise a sound source.

Vocabulary I need to know...

Sound: sound; vibration; vibrate; sound source; medium; solid; liquid; gas; particles; pitch; high; low; frequency; volume; loud; quiet; amplitude; distance; faint

Investigation and application: absorb; reflect; insulate; material; measure; eardrum; hearing aid; ultrasound; communication; engineer

Opportunities to support English and maths	Curriculum Links and Enrichment Activities
Scientific discussion and explanation; accurate use of scientific vocabulary; measuring distance; recording results; interpreting tables and simple graphs; using evidence to form conclusions.	Music through pitch, volume and musical instruments; DT through soundproofing and material selection; digital recording and sound measurement; real-world applications including hearing technology, ultrasound and sound engineering.

Evaluation

I can now explain...
The investigation that helped me understand sound most was... because...
One idea I changed my mind about was...
I still want to know...