

## Physics Unit: Sound

What does progression of knowledge look like?

Year	Progression of knowledge..
4	<ul style="list-style-type: none"><li>● Identify how sounds are made, associating some of them with something vibrating</li><li>● Recognise that vibrations from sounds travel through a medium to the ear</li><li>● Find patterns between the pitch of a sound and features of the object that produced it</li><li>● Find patterns between the volume of a sound and the strength of the vibrations that produced it</li><li>● Recognise that sounds get fainter as the distance from the sound source increases</li></ul>
5	<ul style="list-style-type: none"><li>● Recall the different structures of the ear and the function of each part</li><li>● Explain how sound waves can be modelled</li><li>● Describe what happens to a sound wave over time</li><li>● Calculate the speed of sound in different substances</li><li>● Explain what an auditory range is</li><li>● Give examples of animals that have large auditory ranges</li><li>● Describe how sound can be useful in everyday life</li></ul>
Key Stage 3 (7-9)	<ul style="list-style-type: none"><li>● What is sound and what causes it</li><li>● Describe how sound intensity is linked to volume.</li><li>● Describe how sound pitch is linked to frequency</li> <li>● Explain what an oscilloscope is and what can oscilloscope traces show us.</li><li>● Describe the way in which sound travels and give examples of substances sound will or will not travel through</li><li>● Explain whether sound can travel through a vacuum.</li><li>● Recall the parts of the ear and what is the function of each part?</li><li>● Describe how a microphone works and how we can hear sound can be transferred from a microphone to loud speaker to our ears.</li><li>● Define auditory range?</li> <li>● Explain what infrasound and ultrasound mean?</li><li>● Recall 3 things that can happen to the energy of sound waves as they arrive at a material?</li><li>● Describe the differences between ultrasound waves and x-rays. Give examples of uses in everyday life.</li><li>● Explain what echolocation and sonar are and how they are can be used.</li><li>● Describe how waves can be modelled</li><li>● Describe what a longitudinal wave is and give examples.</li><li>● Describe what a transverse wave is and give examples.</li><li>● Describe what is meant by the superposition of waves.</li></ul>