



PROGRESSION OF KNOWLEDGE



Physics Unit: Sound

What does progression of knowledge look like?

Year	Progression of Knowledge
4	• 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
5	• Recall the different structures of the ear and the function of each part • Explain how sound waves can be modelled • Describe what happens to a sound wave over time • Calculate the speed of sound in different substances • Explain what an auditory range is • Give examples of animals that have large auditory ranges • Describe how sound can be useful in everyday life
Key Stage 3 (7-9)	• What is sound and what causes it • Describe how sound intensity is linked to volume. • Describe how sound pitch is linked to frequency • Explain what an oscilloscope is and what can oscilloscope traces show us. • Describe the way in which sound travels and give examples of substances sound will or will not travel through • Explain whether sound can travel through a vacuum. • Recall the parts of the ear and what is the function of each part? • Describe how a microphone works and how we can hear sound can be transferred from a microphone to loud speaker to our ears. • Define auditory range? • Explain what infrasound and ultrasound mean? • Recall 3 things that can happen to the energy of sound waves as they arrive at a material? • Describe the differences between ultrasound waves and x-rays. Give examples of uses in everyday life. • Explain what echolocation and sonar are and how they are can be used. • Describe how waves can be modelled • Describe what a longitudinal wave is and give examples. • Describe what a transverse wave is and give examples. • Describe what is meant by the superposition of waves.