



By the end of ...	SOUND and WAVES Progression in Key Concepts ...	PoS suggested year
Key Stage 1	<ul style="list-style-type: none"> • <i>Identify sounds that they think are nasty or nice</i> • <i>Recognise that sounds can be made in a variety of ways</i> • <i>Recognise that most objects can be made to make sounds</i> • <i>Recognise that sounds can be loud or soft</i> • <i>Recognise that sounds are heard when they enter our ears</i> • <i>Recognise that sounds can be used to indicate when something is happening or is going to happen</i> • <i>Recognise that different objects make different sounds</i> • <i>Recognise that sounds can be made by striking, shaking, scraping, plucking and blowing.</i> 	Year 1 or 2
Key Stage 2	<ul style="list-style-type: none"> • 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 • <i>Recognise that sounds travel away from their source</i> • Recognise that sounds get fainter as the distance from the sound source increases. <hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> • <i>Recognise that sounds can be high or low (pitched)</i> • <i>Describe how sounds are made when objects vibrate</i> • <i>Recognise that not all objects can be seen to vibrate</i> • <i>Recognise that vibrations can travel at different speeds through different mediums.</i> 	Year 4 Year 5 or 6
Key Stage 3	<p>Sound waves</p> <ul style="list-style-type: none"> • <i>Identify that</i> frequencies of sound waves are measured in hertz (Hz); • <i>Recognise</i> echoes, reflection and absorption of sound • <i>Recognise that</i> sound needs a medium to travel • <i>Recognise</i> the speed of sound in air, in water, in solids • <i>Recognise that</i> sound <i>is</i> produced by vibrations of objects, in loud speakers, detected by their effects on microphone diaphragm and the ear drum; sound waves are longitudinal • <i>Identify the</i> auditory range of humans and animals. <hr style="border-top: 1px solid black;"/> <p>Energy and waves</p> <ul style="list-style-type: none"> • <i>Identify that</i> pressure waves transfer energy; • <i>Describe their uses:</i> use for cleaning and physiotherapy by ultra-sound; waves transferring information for conversion to electrical signals by microphone. 	Year 7, 8 or 9



	<p>Observed waves</p> <ul style="list-style-type: none">• <i>Identify</i> waves on water as undulations which travel through water with transverse motion;• <i>Recognise that</i> these waves can be reflected, and add or cancel – superposition.	
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