

Lesson	Know	Apply	Extend
4.1.1 Sound waves and speed	I can name some sources of sound. <input type="checkbox"/>	I can describe how sound is produced and travels. <input type="checkbox"/>	I can explain what is meant by supersonic travel. <input type="checkbox"/>
	I can name materials that sound can travel through. <input type="checkbox"/>	I can explain observations where sound is transmitted by different media. <input type="checkbox"/>	I can describe sound as the transfer of energy through vibrations and explain why sound cannot travel through a vacuum. <input type="checkbox"/>
	I can state that sound travels at 330m/s in air, a million times more slowly than light. <input type="checkbox"/>	I can contrast the speed of sound and the speed of light. <input type="checkbox"/>	I can compare the time taken for sound and light to travel the same distance. <input type="checkbox"/>
	I can use data to compare the speed of sound in different materials. <input type="checkbox"/>	I can compare the time for sound to travel in different materials using data given. <input type="checkbox"/>	I can explain whether sound waves from the Sun can reach the Earth. <input type="checkbox"/>
4.1.2 Loudness and amplitude	I can define amplitude, frequency, and wavelength. <input type="checkbox"/>	I can explain observations of how sound travels using the idea of a longitudinal wave. <input type="checkbox"/>	I can explain how you can make measurements of the amplitude of a sound wave. <input type="checkbox"/>
	I can state the link between loudness and amplitude. <input type="checkbox"/>	I can describe the link between loudness and amplitude, using diagrams. <input type="checkbox"/>	I can compare and contrast waves of different loudness using a diagram. <input type="checkbox"/>
	I can state two things that can happen when sound goes through matter or hits a boundary. <input type="checkbox"/>	I can explain what happens when sound goes through matter or hits a boundary. <input type="checkbox"/>	I can describe in detail the behaviour of sound as it travels in matter or hits a boundary. <input type="checkbox"/>
	I can label amplitude on a diagram of an oscilloscope trace of a wave. <input type="checkbox"/>	I can describe how to find the amplitude of a wave from an oscilloscope trace. <input type="checkbox"/>	I can use an oscilloscope on a variety of settings of p.d./division to find the amplitude of a sound wave. <input type="checkbox"/>
4.1.3 Frequency and pitch	I can define auditory range. <input type="checkbox"/>	I can describe the auditory range of humans. <input type="checkbox"/>	I can present a reasoned prediction using data of how sounds will be differently heard by different animals. <input type="checkbox"/>

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	I can state the difference between frequency and pitch. <input type="checkbox"/>	I can describe the link between frequency and pitch. <input type="checkbox"/>	I can compare and contrast waves of different frequency using a diagram. <input type="checkbox"/>
	I can label time period on a diagram of a sound wave on an oscilloscope. <input type="checkbox"/>	I can describe how to find the frequency of a wave from an oscilloscope trace. <input type="checkbox"/>	I can use an oscilloscope on a variety of settings of s/div to find the period and frequency of a sound wave. <input type="checkbox"/>
4.1.4 The ear and hearing	I can name some parts of the ear. <input type="checkbox"/>	I can describe how the ear works. <input type="checkbox"/>	I can evaluate the data behind a claim for a sound creation or blocking device, using the properties of sound waves. <input type="checkbox"/>
	I can state some ways that hearing can be damaged. <input type="checkbox"/>	I can describe how your hearing can be damaged. <input type="checkbox"/>	I can suggest the effects of particular ear problems on a person's hearing. <input type="checkbox"/>
	I can describe some risks of loud music. <input type="checkbox"/>	I can explain some risks of loud music. <input type="checkbox"/>	I can explain, in detail, risks of hearing damage linked to sound level and time of exposure. <input type="checkbox"/>