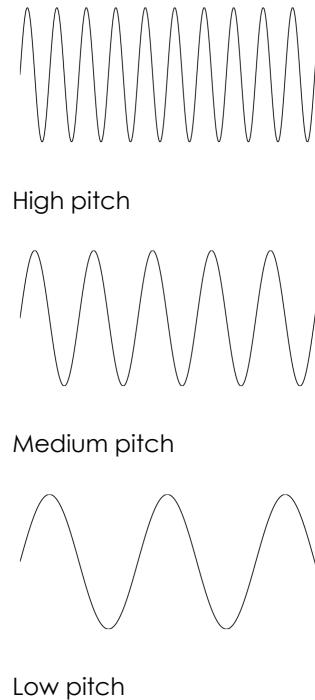
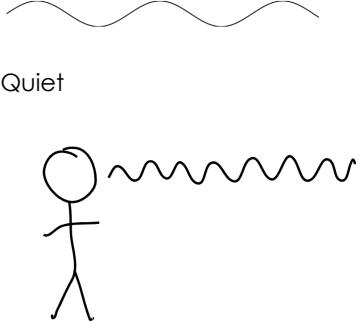


# Progression Map for Sound

This progression map is intended to supplement your scheme or the national curriculum. You can use it to emphasise the key learning you want at each key stage.

		Experiencing and Talking about Sound	Measuring Sound	Representing Sound	Thinking Questions
EYFS /KS1	Use a keyboard (or any instrument) to practice loud and quiet, high and low.	Focus on comparisons: <ul style="list-style-type: none"> <li>• Loud / quiet</li> <li>• High / low</li> <li>• Louder than / quieter than.</li> <li>• Higher than / lower than</li> </ul>		Use gestures to represent sound visually - loud and quiet could be the distance apart of your hands, high and low pitch by lifting a hand higher or lower.  Learners can find this tricky - there's no problem with practicing this all the way through primary.	How can you make a sound louder / quieter?
LKS2	Experience vibrations from phones etc.  You can often feel vibrations from passing vehicles.  Point out vibrations when you are travelling.  You can feel the vibrations when you touch a bell or buzzer.  You can see the vibrations in a	Use touch to compare the size of vibrations.  You can compare the size of vibrations of the ruler / stringed instrument.		Using a wiggling hand gesture to represent vibrations would lead well into a wave representation for vibrations / sound.  A high frequency back and forth gesture would represent high pitch, and slow back and forth for low pitch. Loud can be an exaggerated gesture, whereas a small amplitude would represent a quiet sound.	How can you make a sound higher pitch / lower pitch?  What is the connection between vibrations and sound (this isn't obvious). All sounds are vibrations, though we can't always hear vibrations, especially if the frequency is too low.

	string telephone or stringed instrument.			
UKS2	<p>Use a ruler over the edge of a desk to observe vibrations. When you reduce the amount of overhang, the pitch increases. (Note: a meter rule lets you see the vibrations much more clearly, but you won't be able to hear the 'buzz'</p>	<p>You can get apps which measure sound intensity (e.g. science journal) - you could investigate the loudness of different instruments etc. and plot the results on bar charts.</p> <p>A more sophisticated experiment would be to 'ping' the ruler on the edge of the table by different amounts (in 5mm steps) and use the sound sensor to measure the sound of vibration. Definitely worth trying this before the lesson!</p>	<p>It would be useful to represent vibrations visually as a wave (though not strictly KS2):</p>  <p>High pitch</p> <p>Medium pitch</p> <p>Low pitch</p>	<p>What can sound travel through?</p> <ul style="list-style-type: none"> <li>• Water? (yes - think whale song)</li> <li>• Air? (yes - think singing birds in flight and the sound of aeroplanes).</li> <li>• Solids? (yes - if you put your ear onto a table and get someone to scratch it really quietly, you can hear the vibrations).</li> <li>• Space? Can you hear the Sun? (no).</li> </ul>

			 <p>Quiet</p> <p>(How you might choose to use these sound wave representations).</p>	
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