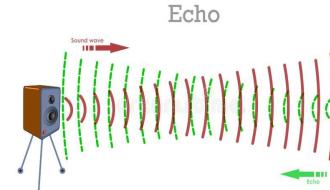
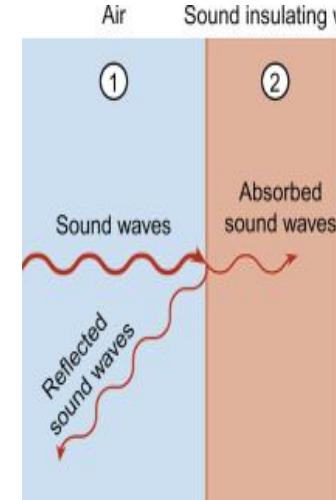
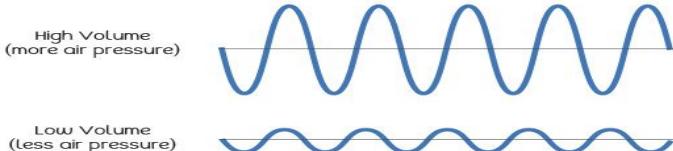
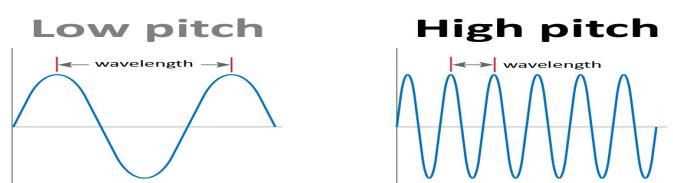
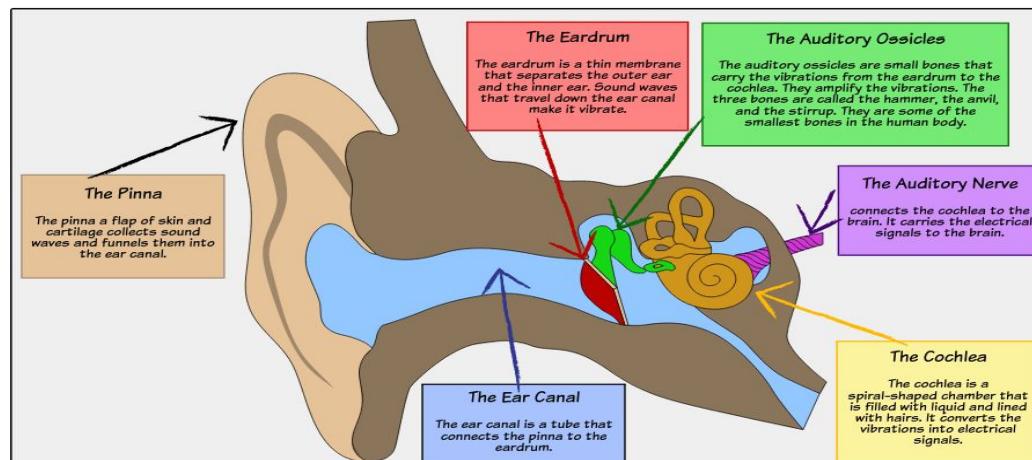


## Sound

Significant Scientists		Key Knowledge	Key Vocabulary
Chien-Shiung Wu 	Wu was famous for designing clever, accurate experiments. She showed the importance of careful observation, fair testing, and recording results. Wu studied how particles move and interact — similar to how we study vibrations that cause sound.	<p>Sound is a thing that can be heard. The object that makes the sound is called a source.</p> <p>When objects vibrate, a sound is made. The vibration makes the air around the object vibrate and the air vibrations enter the ear. These are called sound waves. If an object is making a sound, a part of it is vibrating, even if you cannot see the vibrations.</p> <p>Sound waves travel to the ear and make the eardrum vibrate. Messages are sent to the brain which recognises the vibrations as sound.</p> <p>Sound waves travel through a medium such as air, water, glass, stone, and brick.</p> <p>Sound is measured in different ways.</p>	<p><b>amplitude</b> Measures how strong a sound wave is.</p> <p><b>decibels</b> Measure how loud a sound is.</p> <p><b>frequency</b> Measures the number of times per second that the sound wave cycles.</p> <p><b>vibration</b> Invisible waves that move very quickly.</p> <p><b>soundwave</b> Invisible wave that travels through the air, water and solid objects as vibrations.</p> <p><b>volume</b> How loud or quiet a sound is.</p> <p><b>pitch</b> How high or low a sound is.</p> <p><b>tone</b> The quality or character of a sound.</p> <p><b>insulation</b> When sound waves are prevented from permeating.</p>
Working Scientifically Skills		Enquiry Skills	
<p>Plan an enquiry.</p> <p>Gather, record, classify and present data in a variety of ways to help in answering questions.</p> <p>Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p> <p>Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</p>		<p>Identifying and classifying</p> <p>Fair testing</p> <p>Observing over time</p> <p>Pattern seeking</p>	 <p><b>Echo</b></p> <p>Air      Sound insulating w</p>  <p>①      ②</p> <p>Sound waves</p> <p>Absorbed sound waves</p> <p>Reflected sound waves</p>
 <p>High Volume (more air pressure)</p>  <p>Low Volume (less air pressure)</p>		 <p><b>The Pinna</b> The pinna is a flap of skin and cartilage that collects sound waves and funnels them into the ear canal.</p> <p><b>The Ear Canal</b> The ear canal is a tube that connects the pinna to the eardrum.</p> <p><b>The Eardrum</b> The eardrum is a thin membrane that separates the outer ear and the inner ear. Sound waves that travel down the ear canal make it vibrate.</p> <p><b>The Auditory Ossicles</b> The auditory ossicles are small bones that carry the vibrations from the eardrum to the cochlea. They amplify the vibrations. The three bones are called the hammer, the anvil, and the stirrup. They are some of the smallest bones in the human body.</p> <p><b>The Auditory Nerve</b> connects the cochlea to the brain. It carries the electrical signals to the brain.</p> <p><b>The Cochlea</b> The cochlea is a spiral-shaped chamber that is filled with liquid and lined with hairs. It converts the vibrations into electrical signals.</p>	 <p>Grange Park Primary School</p>