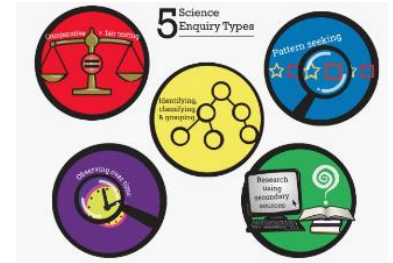


# Year 4 Summer Term

## Sound


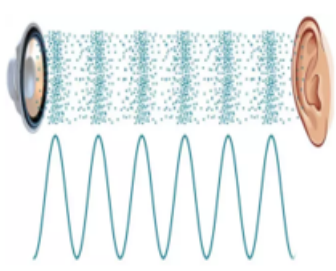
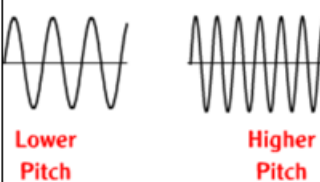
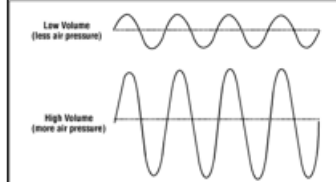


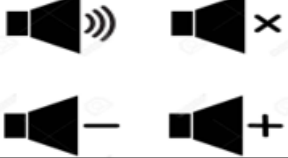


### Prior knowledge

Not covered – new learning

### National Curriculum for year 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

Overview		How Sounds are Made	
	<ul style="list-style-type: none"> <li>-Sounds are made when objects vibrate.</li> <li>-Vibrations travel from objects in waves to our ears, allowing us to hear sound.</li> <li>-Weak vibrations make a gentle soundwave which do not travel as far as strong vibrations. This is why sounds have different volumes.</li> <li>-Sounds can be high pitched or low pitched. Tight, short frequency waves make a high-pitched sound, while more loose waves make low-pitched sounds.</li> </ul>		<ul style="list-style-type: none"> <li>-Sounds are created when something <u>vibrates</u> (shakes back and forth).</li> <li>-This creates <u>soundwaves</u> which travel to the ears of the listener.</li> <li>-When a bell is struck, the metal of the bell vibrates. These vibrations create waves in the air (sound waves).</li> <li>-When they reach our ears, they make our <u>eardrums</u> vibrate, and we hear the sound of the bell ringing.</li> </ul>
Pitch		Volume	
<ul style="list-style-type: none"> <li>-Pitch is the highness or lowness of sounds.</li> <li>-Pitch is caused by the frequency of vibrations (how many times vibrations go back and forth per second).</li> <li>-The higher the rate of vibrations, the higher the pitch.</li> <li>-Lower pitch sounds have a lower rate of vibrations.</li> <li>-Humans can hear a large range of pitches, high-pitch sounds e.g. a mouse squeak to low-pitch sounds e.g. the rumble of an earthquake.</li> <li>-However, some sounds are too high or low-pitched for us to hear.</li> </ul>			<ul style="list-style-type: none"> <li>-Volume is the loudness of a sound.</li> <li>-The volume of a sound depends on the amount of energy that the vibrations contain.</li> <li>-Vibrations with lots of energy create large soundwaves.</li> <li>-When these large soundwaves arrive at your ears, they push harder on your eardrums.</li> <li>-This is why when we strike a drum harder (with more energy) it is louder than when we strike it more softly.</li> <li>-Our ears can detect a wide range of loud and quiet sounds, from rumbling jet engines to leaves rustling.</li> </ul>
 <p>Whistle High pitch sound</p>	 <p>Drum Low pitch sound</p>		

### Key vocabulary

Volume, Vibration,  
Wave, Pitch,  
Tone, Speaker

### Suggested texts

(Foxton) sound

### Scientists

- Alexander Graham Bell -Invented the telephone
- Aristotle - Sound Waves
- Galileo Galilei - Frequency and Pitch of Sound Waves

Can you describe what pitch means?

How are sounds made?

What is the difference between volume and pitch?

Can you describe how vibrations are used to make sounds?

### Low Pitch Sounds

Lion's Roar

Tuba

Bass Guitar

Thunder

### High Pitch Sounds

Child's voice

Whistle

Shriek

Mouse Squeak