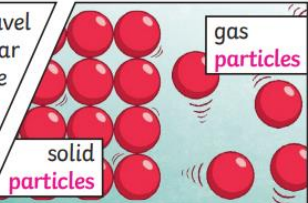


Key Vocabulary

<b>Vibration</b>	A quick movement back and forth.
<b>Sound Wave</b>	Vibrations travelling from a sound source.
<b>Volume</b>	The loudness of a sound
<b>Amplitude</b>	The size of a vibration. A larger amplitude = a louder sound.
<b>Pitch</b>	How low or high a sound is
<b>Eardrum</b>	A part of the ear, which is a thin, tough layer of tissue that is stretched out like a drum skin. It separates the outer ear from the middle and inner ear. Sound waves make the eardrum vibrate
<b>Particles</b>	Solids, liquids, and gases are made of particles. They are so small we are unable to see them.
<b>Ear</b>	An organ used for hearing.
<b>Distance</b>	A measurement of length between two points.

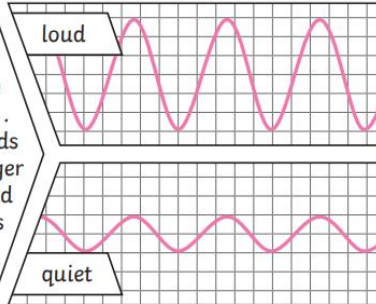
Sound energy can travel from **particle to particle** far easier in a solid because the **vibrating particles** are closer together than in other states of matter.



Key Information

Sound is a type of energy. Sounds are created by vibrations. The louder the sound, the bigger the vibration.

The size of the **vibration** is called the **amplitude**. Louder sounds have a larger **amplitude**, and quieter sounds have a smaller **amplitude**.



**Pitch** is a measure of how high or low a sound is. A whistle being blown creates a high-**pitched** sound. A rumble of thunder is an example of a low-**pitched** sound.



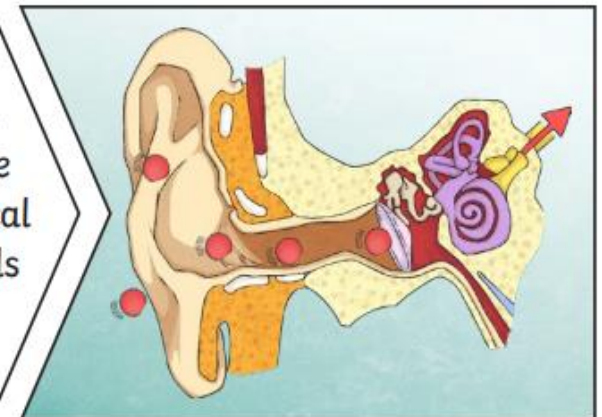
You can change the **pitch** of a sound in different ways depending on the type of instrument you are playing.

For example, if you are playing a xylophone, striking the smaller bars with the beater causes faster **vibrations** and so a higher **pitched** note. Striking the larger bars causes slower **vibrations** and produces a lower note.



Sound can travel through solids, liquids, and gases. Sound travels as a wave, vibrating the particles in the medium it is travelling in. Sound cannot travel through a vacuum.

Inside your **ear**, the **vibrations** hit the **eardrum** and are then passed to the middle and then the inner **ear**. They are then changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.



## Hyde Park Junior School - Science

Enquiry Question: Do we all hear the same sounds?

**Topic: Sound**

**Year: 4**

**Strand: Physics**

Question 1: Name three objects that make sound.	Start of unit:	End of unit:
Object 1		
Object 2		
Object 3		

Question 2: Anything can make a sound.	Start of unit:	End of unit:
True		
False		

Question 3: Bigger Objects make a deeper sound.	Start of unit:	End of unit:
True		
False		

Question 4: How does sound travel to your ears?	Start of unit:	End of unit:

Question 5: Give three ways to make an object make a low sound and three ways to make an object make a high sound.	Start of unit:	End of unit:
Method 1		
Method 2		
Method 3		

