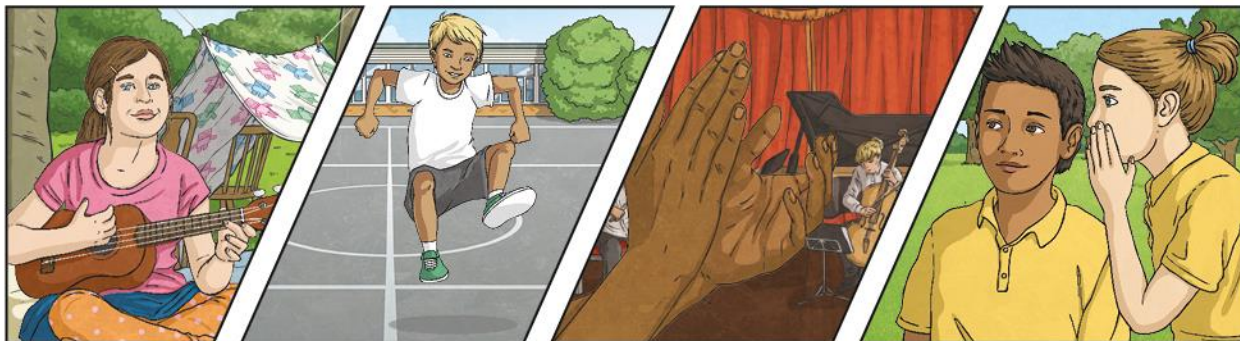


Key Vocabulary

vibration	A quick movement back and forth.
sound proof	Preventing the passage of sound.
volume	The loudness of a sound.
decibel	The size of a vibration . A larger amplitude - a louder sound.
pitch	How low or high a sound is.

Key Knowledge

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

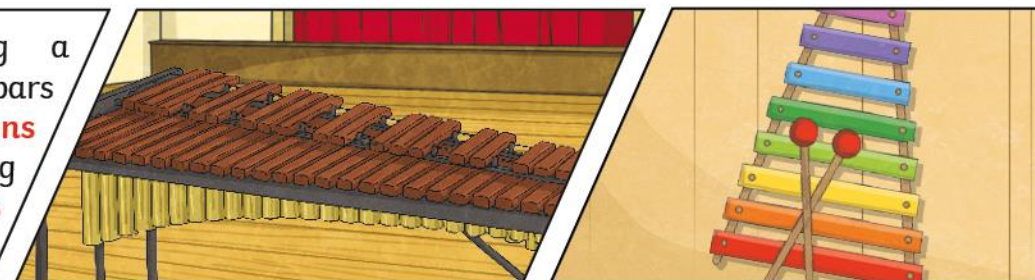


The size of the **vibration** is called the **amplitude**. Louder sounds have a larger **amplitude**, and quieter sounds have a smaller **amplitude**.

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.



Key Vocabulary	
buzzer	An electrical device that makes a buzzing noise.
sound source	An object that produces sound.
travel	When sound waves move through air as vibration.
fainter	Something that decreases the strength or intensity of a sound.
muffle	Something that makes sound quieter.
tune	A melody, especially ones that characterises a particular piece of music.
instrument	A device that produces a musical sound.
insulation	A material that prevents the loss of sound.
condensation	Water that collects as droplets on a cold surface when humid air is in contact with it.
evaporation	The process of turning from liquid to vapour.
precipitation	The process of water falling to the earth as hail, mist, rain sleet, or snow.
producer	Living things that can make their own food using air, light, soil and water.
water cycle	The path that all water follows as it moves around the Earth in different states.
water vapour	Water in its gas state.

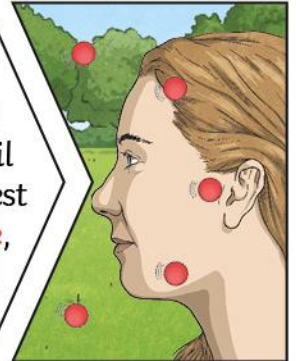
Key Knowledge

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**.

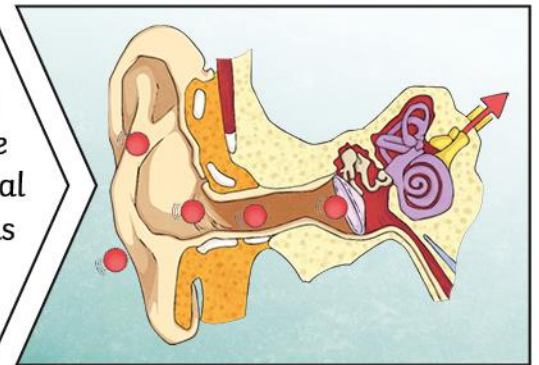
When you hit the drum, the drum skin **vibrates**. This makes the air **particles** closest to the drum start to **vibrate** as well.



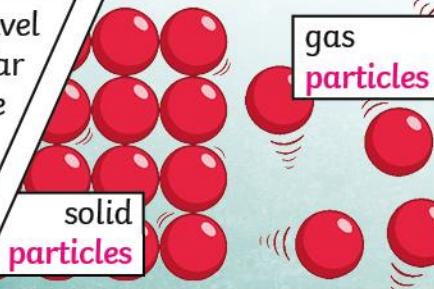
The **vibrations** then pass to the next air **particle**, then the next, then the next. This carries on until the air **particles** closest to your ear **vibrate**, passing the **vibrations** into your **ear**.



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.



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.



If you throw a stone in a pond, it will produce ripples. As the ripples spread out across the pond, they become smaller. When sound **vibrations** spread out over a **distance**, the sound becomes quieter, just like ripples in a pond.

