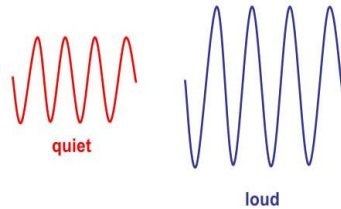


Year 4 Knowledge Organiser Sound

Key Vocabulary	
Vibration	A movement backwards and forwards
Sound wave	Vibrations travelling from a sound source
Volume	How loud or soft the sound is.
Pitch	How low or high a sound is. A high sound has a high pitch. A low sound has a low pitch.
Ear	An organ used for hearing.
Sound insulator	Some materials allow sound to pass through them easily. Some materials, especially soft ones like cotton wool, absorb sound. Insulators can be used to reduce sound.
Vacuum	A space where there is nothing. There are no particles in a vacuum.

Sounds are made when objects vibrate. The vibration makes the air around the object vibrate and the air vibrations enter your ear and you hear them as sound. The louder the sound the bigger the vibration. You can't always see the vibrations, but if something is making a sound, some part of it is vibrating.



The louder the sound the bigger the vibration.

Pitch

Pitch is the 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 pitch sound.

You can change the pitch of a sound in different ways depending on the type of instrument. For example, if you are playing a xylophone, striking the smaller bars with a beater causes faster vibrations and so a higher pitch note. A tight skin on a drum gives a higher pitched sound than a loose drum skin.

Sound can travel through solids (eg metal, stone and wood), liquids (eg water) and gases (such as air). Sound travels in 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 closest to the drum start to vibrate as well.



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 the ripples in the pond. Sound gets fainter as the distance from the sound source increases.



Volume

You can change the volume of a sound in different ways. For example, a nail hit hard gives a louder sound. A nail hit gently makes a quiet sound.

