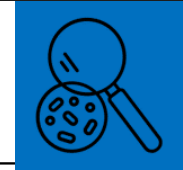




Objectives and Sticky Knowledge

Previous Knowledge:



Land Objectives and Sticky Knowledge:

<p>- Know how sound is made, associating some of them with vibrating.</p>	<p>- Know how sound travels from a source to our ears.</p>	<p>- Know the correlation between pitch and the object producing a sound. - Know the correlation between the volume of a sound and the strength of the vibrations that produced it.</p>	<p>- Know what happens to a sound as it travels away from its source.</p>
<p>1. Sound is a type of energy. 2. Sounds are created by vibrations. 3. The louder the sound, the bigger the vibration.</p> <p>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.</p>	<p>1. When you hit the drum, the drum skin vibrates. This makes the air particles closest to the drum start to vibrate as well. 2. 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. 3. 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.</p>	<p>1. 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.</p> <p>The size of the vibration is called the amplitude. Louder sounds have a larger amplitude, and quieter sounds have a smaller amplitude.</p>	<p>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.</p>

Sea:  
Links with Golden Thread

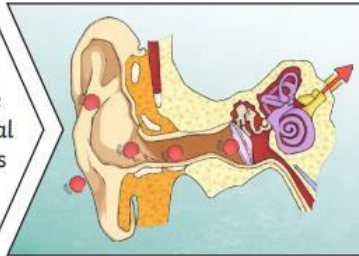
Links to CST and CKA Values:

# Year 4 Science Knowledge Organiser

## 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.

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.



### Key Knowledge

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



**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.



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.

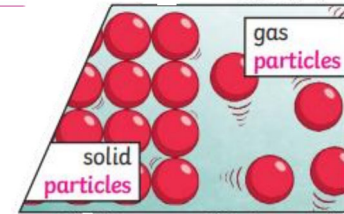


You can change the **pitch** of a sound in different ways depending on the type of instrument you are playing.

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 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.



### Sky Objectives:

1. Begin to understand which types of enquiry can be used to answer questions.
2. Conduct comparative tests and explain the changes in results.
3. Use concluding remarks to begin to make predictions for future investigations.