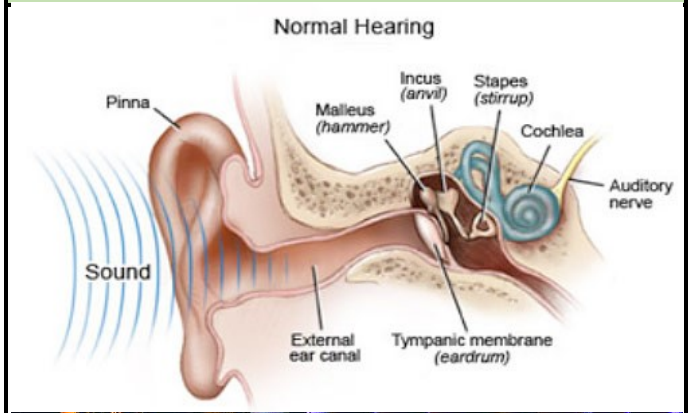
Long Sutton County Primary School – Knowledge Organiser

Topic: Sound	Year: 4	Term: 4

Background Information

- Sound travels in waves
- Sound can be amplified
- Buildings and materials can effect how sound travels..
- The pitch of sound refers to whether it is high or low.
- Peoples voices are at different pitches.
- Sound can be measured (decibels).

Diagrams / Timelines / Photos



Interesting Facts

- Sound comes from vibrations. These vibrations create sound waves which move through mediums such as air and water before reaching our ears.
- Our ears vibrate in a similar way to the original source of the vibration, allowing us to hear many different sounds.
- Dogs can hear sound at a higher frequency than humans, allowing them to hear noises that we can't.
- Sound is used by many animals to detect danger, warning them of possible attacks before they happen.
- Sound can't travel through a vacuum (an area empty of matter).
- The speed of sound is around 767 miles per hour (1,230 kilometres per hour).
- The loud noise you create by cracking a whip occurs because the tip is moving so fast it breaks the speed of sound!
- When traveling through water, sound moves around four times faster than when it travels through air.
- The scientific study of sound waves is known as acoustics.
- Although music can be hard to define, it is often described as a pleasing or meaningful arrangement of sounds.
- The sound of thunder is produced by rapidly heated air surrounding lightning which expands faster than the speed of sound.

Key Vocabulary

Decibels	A unit for measuring the loudness of sounds.
Pitch	The pitch of a sound is how high or low a sound is
Vibrate/ vibration	*Vibration means* quickly moving back and forth (or up and down) about a point of equilibrium.
Sound wave	Sound waves are vibrating forms of energy that are made of molecules and look like waves. Sound waves can travel through solids, liquids and gases.
Percussion	The striking of one body against another .
Insulation	Materials which restrict or prevent the movement of sounds.
Sound	Sound is made up of vibrations, or sound waves, that we can hear.
Ear drum	The membrane that separates the outer and middle parts of the ear and vibrates when sound waves strike it.
Ear canal	This is a tube that helps sound to travel further inside our ear .
Echo	Echoes are created when sound waves hit a hard surface, such as a wall, and then are bounced back again, causing you to hear the sound again.

Know how to / Activity

- Try and speak in a high and a low pitch.
- Find the names of the major parts of the ear.
- Answer questions such as, 'How does sound travel?'
- Create a picture based on sound waves. And musical instruments
- Make a percussion instrument capable of producing different sounds.
- Make a string telephone out of string and two plastic cups. See how far it is effective.