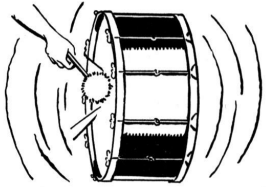


**Meadows First School Knowledge Organiser**      **SCIENCE**      **Year 4 Summer 2**      **Focus: Sound**

**Key Knowledge**

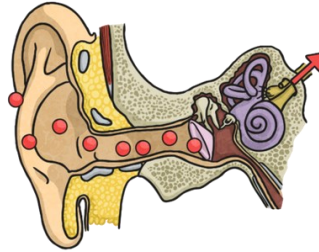
I know that all sounds are made by vibrations *How are all sounds made?*



- When objects vibrate a sound is made.
- The vibrations make the air around the object vibrate and these vibrations enter your ear.
- IF an object is making a sound part of it is vibrating, even if you can't see the vibrations.

I know that sound vibrations travel through different mediums to my ear. *Explain how you know sound can travel through water?*

- Sound vibrations travel from **particle** to particle in lots of different **mediums**.
- Sounds can travel through the air but also through objects and materials. This is why you can hear sounds through walls!
- These vibrations enter our ears and makes our ear drum vibrate too,
- Sound vibrations lose **energy** when travelling through a **medium**. This is why sounds become quieter when further away.



**Key Vocabulary**

<b>amplitude</b>	The size of the vibration being made.
<b>eardrum</b>	A thin layer of tissue inside the ear. Soundwaves make it vibrate.
<b>energy</b>	How much power something has.
<b>medium</b>	Something through which sounds can travel through.
<b>pitch</b>	How high or low a sound is.
<b>Sound wave</b>	Vibrations travelling from a sound source.
<b>vibration</b>	A movement backwards and forwards.
<b>volume</b>	The loudness of a sound.

**Working Scientifically**

- We will be designing our own noise cancelling headwear. To do this we will be setting up our own investigations on which materials absorb sound. We will use our results to draw simple conclusions that will help us pick the best material for the job.
- We will make observations that sound waves have on different mediums and noting down our observations. We will use our observations to ask scientific questions about sound.

**Prior learning**

Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)

**MISCONCEPTIONS—some chn may think:**

- sound is only heard by the listener
- sound only travels in one direction from the source
- sound can't travel through solids and liquids
- high sounds are loud and low sounds are quiet.

I can find patterns in what changes the **pitch** and **volume** of a sound.

	Loud sounds have large and strong <b>vibrations</b> (or <b>amplitude</b> ). Hitting a drum hard.
	Quiet sounds have small and weak <b>vibrations</b> (or <b>amplitude</b> ). Hitting a drum softly.
	The faster the <b>vibration</b> the higher the <b>pitch</b> . A whistle blowing would have high pitch.
	The slower the <b>vibration</b> the lower the <b>pitch</b> . Thunder has a low <b>pitch</b> .