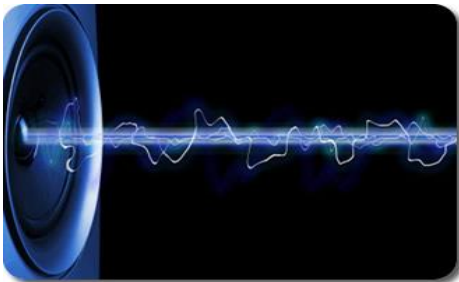


## What should I already know?

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## 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.
- The size of the vibration is called the amplitude.
- Louder sounds have a larger amplitude, and quieter sounds have a smaller amplitude.
- Faster vibrations = higher pitch.
- slower vibrations = lower pitch/
- 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.
- 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.



## Baines Endowed VC Primary School Thornton-Cleveleys

'Reaching Up'

## Sound (Science)

Year 4

### Skills

- Identify how sounds are made, associating some of them with something vibrating
- Recognise that vibrations from sounds travel through a medium to the ear
- Find patterns between the pitch of a sound and features of the object that produced it
- Find patterns between the volume of a sound and the strength of the vibrations that produced it.
- Recognise that sounds get fainter as the distance from the sound source increases.
- Finding patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses
- They might make ear muffs from a variety of different materials to investigate which provides the best insulation against sound
- They could make and play their own instruments by using what they have found out about pitch and volume

### Vocabulary

Sound Wave- the way which sound travels to the ear

Vibrations- the impact of the sound make vibrations

Pitch- the quality of a sound depending on the rate of vibrations

Volume- the loudness or quietness of a sound

Echo- a sound that bounces

Vibrations- the movement of sound up and down through a medium

Noise pollution- harmful or annoying levels of noise

Insulate- materials use to quieten sound