

## Year 3 and 4

**Topic title:** Sound

**Topic Themes:** Science

### Our objectives for the topic:

- Identify how sounds are made, associating some of them with something vibrating.
- Recognise that vibrations from a sound 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.
- Recognises that sounds get fainter as the distance from the sound source increases.

### Essential Knowledge:

- To know sound is a type of energy.
- To know sounds are created by vibrations.
- To know the louder the sound, the bigger the vibration.
- To know sound can travel through solids, liquids and gases.
- To know sound travels as a wave, vibrating the particles in the medium it is travelling in.
- To know sound cannot travel through a vacuum.
- To know we measure sounds in decibels (dB).
- To know that sounds get fainter as the distance from the sound source increases.

### Interesting information:

- Sound travels much slower than light, whether in the air or in water. Light travels at 186,000 miles per second, whilst sound travels at 770 miles per hour.
- Usually, animals with larger ears can hear much better than animals with smaller ears. Flies cannot hear at all!

### Key Vocabulary:

#### **Vibration**

A quick movement back and forth.

#### **Sound source**

Where sound comes from. A sound source will produce vibrations.

#### **Sound wave**

Vibrations travelling from a sound source.

#### **Volume**

The loudness of a sound.

#### **Amplitude**

The size of a vibration. A larger amplitude = a louder sound.

#### **Pitch**

How low or high a sound is.

#### **Frequency**

How many vibrations are made in one second.

#### **Particles**

Solids, liquids and gases are made of particles. They are so small we are unable to see them.

#### **Energy**

Sound energy is a type of energy that we can hear.

#### **Medium**

A material that allows the transfer of energy from one place to another.

#### **Insulation**

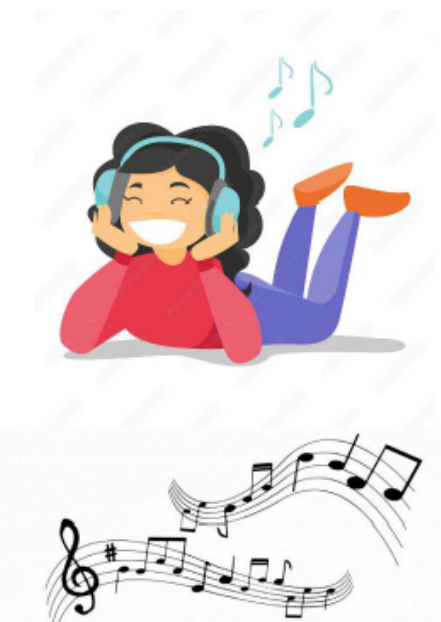
A material used to block sounds.

#### **Vacuum**

A space where there is nothing. There are no particles in a vacuum.

#### **Eardrum**

A part of the ear which is a thin, tough layer of tissue that is stretched out like a drum skin. It separates the outer ear from the middle and inner ear. Sound waves make the eardrum vibrate.



### Books, stories and webpages linked to the topic:

The Sound Collector Poem

Sound – BBC Bitesize

<https://www.bbc.co.uk/programmes/p011mrwm>

<https://www.bbc.co.uk/bitesize/topics/zgffr82>