

# Science Overview – Sound

## Year Four

### Summer Term

#### Key Question: What impact did the Roman invasion have on Britain?

##### National Curriculum

- 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.

##### SUBSTANTIVE KNOWLEDGE

- 1) Know that sound is a type of energy and that sounds are created by vibrations.
- 2) Know that a louder sound creates a bigger vibration and that the size of the vibration is the amplitude.
- 3) Know that pitch is a measure of how high or how low a sound is.
- 4) Know that the speed of the vibration changes the pitch of the sound and that this can be changed depending on the instrument.
- 5) Know that sound travels as a wave and can travel through solids, liquids and gases.
- 6) Know how the ear receives and processes sound.

##### **Key Vocabulary**

vibration, sound wave, volume, amplitude, pitch, ear, particles, distance, soundproof, absorb sound, vacuum, eardrum

##### **Previous year groups key vocabulary:**

Sound is not taught in any other year group.

##### **Disciplinary Concepts**

- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions

##### **Enquiry type to cover and enquiry suggestion**

###### **Pattern Seeking (enquiry type)**

Is there a link between how loud it is in school and the time of day?

###### **Research using secondary sources (enquiry type)**

Do all animals have the same hearing range?

##### **Learning Milestones /Assessment**

I can...

- Explain how a sound is made.
- Describe how sound travels.
- Explain how sound gets to your ear.
- Identify high and low pitch sounds.
- Describe different ways to change sounds.