Year 4 Sound

Statutory Requirements:

- 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
- Recognise that sounds get fainter as the distance from the sound source increases

Working Scientifically:

- Asking relevant questions and using different types of scientific enquiries to answer them
- Setting up simple practical enquiries, comparative and fair tests
- 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
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

Key Knowledge:

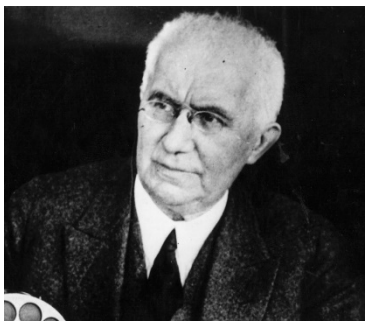
- Sound is made when a sound source vibrates.
- We hear sound when vibrations travel in sound waves to our ears.
- Stronger vibrations create louder sounds. Weaker vibrations create quieter sounds.
- Faster vibrations create higher pitch sounds. Slower vibrations create lower pitch sounds.
- Larger/thicker objects tend to produce low pitch sounds. Smaller, thinner objects tend to produce higher pitch sounds.
- Sound gets fainter as the distance from its source increases.

Key Vocabulary:

- Sound Source
- Sound Wave
- Vibration
- Volume
- Loud
- Quiet
- High Pitch
- Low Pitch
- Echo
- Reverb
- Energy

Key Scientists:

Classic
Heinrich Hertz
(1857-94)
German physicist who proved the existence of electromagnetic waves.



Classic
Emile Berliner
(1851 -1929)
German-American, who invented the microphone and gramophone.

Contemporary
Li-Huei Tsai
(1851 -1929)
Neuroscientist using sound and light waves to treat Alzheimer's disease.