



Sound- Something you can hear or that can be heard. We hear sound with our ears.

Sound source- A source is producing sound when some part of it is vibrating.

Vibrations-Sounds are made when something vibrates. This means it moves quickly backwards and forwards.

Pitch -How high or low a sound is.

Volume-How loud or quiet a sound is.

Sound insulation-A material which blocks sound effectively.

Sound

How do we hear sound?



Christian Doppler(1803-1853)

Christian Doppler was an Austrian mathematician and physicist. He is celebrated for his principle known as the Doppler effect. This describes how noises sound different as you move toward or away from a noisy object.

Volume

The volume (loudness) of a sound depends on the size of the vibrations.



If we blow an instrument harder, we make a louder sound.

The closer we are to the sound source the louder it will be.



A train arriving at a station sounds loud.

The further away from a sound the fainter it will be.



A train in the distance sounds quieter.

By the end of this unit, you'll know:

- how to identify how sounds are made, associating some of them with something vibrating
- how to recognise that vibrations from sounds travel through a medium to the ear
- how to find patterns between the pitch of a sound and features of the object that produced it
- how to find patterns between the volume of a sound and the strength of the vibrations that produced it
- how to recognise that sounds get fainter as the distance from the sound source increases.

As well as travelling through air (gas), sound can travel through solids and liquids:



Pitch



The longer bars on the xylophone make a lower sound.

The shorter bars on the xylophone make higher sounds.

Insulating sound



We can wear ear defenders to protect our ears from very loud sounds.