

Science Knowledge Organiser



Topic: Sound

Year 4: Summer Term

Strand: Physics

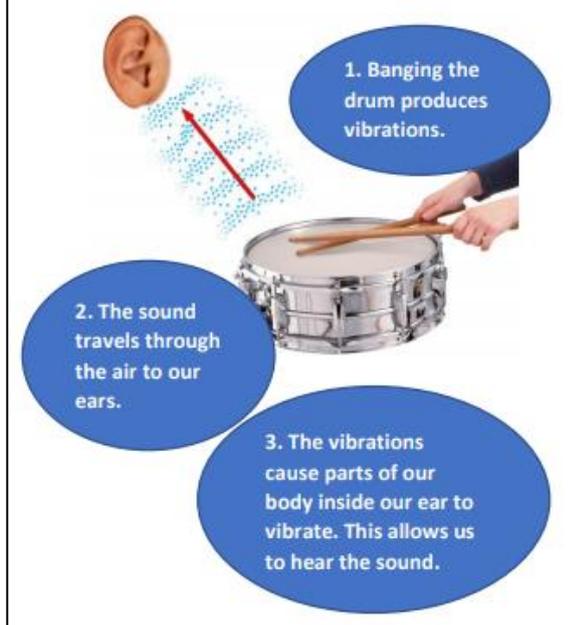
What should I already know?

- We hear sounds through our ears
- There are high and low sounds
- Some sounds are loud and some are quiet
- Our bodies make sounds
- Hearing is a sense

Key vocabulary

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.

How do we hear sound?



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.

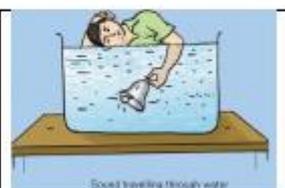
Pitch



The longer bars on the xylophone make a **lower** sound.

The shorter bars on the xylophone make **higher** sounds.

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



Insulating sound



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