

Science Knowledge Organiser

Southwold Primary School



Topic: Sound

Year: 4

Strand: Physics

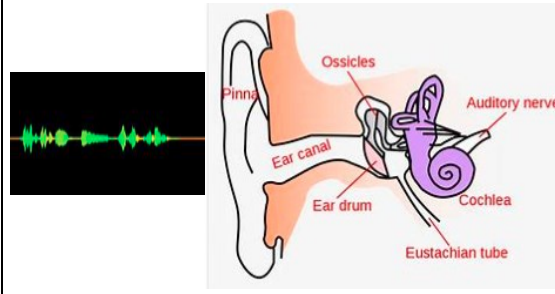
What should I already know?

- Hearing is one of our five senses. Animals listen with their ears
- Sounds can be made by lots of different items.

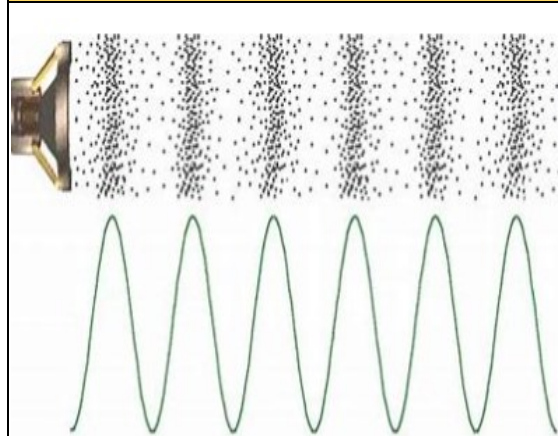
What will I know by the end of this unit?

- When an object vibrates, the air around it vibrates too creating a sound wave.
- The sound waves travel to the ear and make the ear drums vibrate. Messages are sent to the brain which recognises the vibrations as sounds.
- Sound waves travel through a medium (such as air, water, glass, stone, and brick). For example, if somebody is playing music in the room next door, the sound can travel through the bricks in the wall.
- Pitch is a different word for high and low tones and is an important part of music and singing.
- Volume is a different word for how loud a sound is. Loud sounds require more energy.

Hearing with the ear



Moving air particles/sound waves



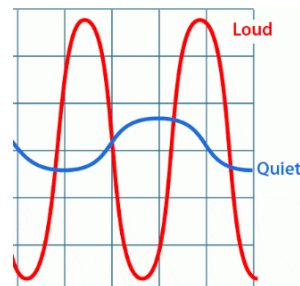
Vocabulary

air particles	Tiny particles in the air around us.
decibel	A measurement of how loud a sound is (volume).
ear drum	Thin skin that is stretched tight inside your ear and is made to vibrate when sound waves make contact.
insulate	The process of keeping heat, electricity or sound from spreading.
pitch	How high or low a sound is.
sound	Vibrations of air particles that make the ear drum vibrate.
Sound source	Where the sound starts.
sound wave	Invisible waves created by object when they vibrate.
transmit	To pass the wave from one object or material to another.
vacuum	Absence of air particles . Sound can not travel in a vacuum.
vibrate	Rapid back and forwards movements.
volume	How loud a sound is.

Working Scientifically

- Pattern seeking through observations.
- Drawing representations.
- Performing simple tests, taking measurements with tools, recording results, representing these in tables and graphs.
- Drawing conclusions.

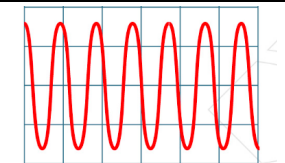
Volume and Pitch



If you put more energy into making air particles vibrate, you create a louder sound. It has a higher volume.

When you make particles vibrate faster, you create a sound that has a higher tone. It has a higher pitch.

**High tone/
pitch**



**Low tone/
pitch**

