













Vocabulary

1 particles (revision Unit 1)		very small parts of matter (solid, liquid or gas)	7 pinna		the part of your ear which is on the side of your head
2 sound		anything that can be heard	8 malleus		a hammer shaped bone in the ear
3 vibration		rapid movement back and forth of particles	9 incus		an anvil shaped bone in the ear
4 volume		how loud something is	10 stapes		a stirrup shaped bone in the ear
5 pitch		how high or low a sound is	11 cochlea		a snail shaped part of the ear which helps to turn sounds into electrical signals
6 frequency		the speed vibrations travel at	12 auditory nerve		electrical signals travel along this to the brain which then tells us what we are hearing

Key knowledge

Sound is anything that can be heard. Sounds are caused by vibrations that travel through matter (a solid, liquid or gas). For example, if you bang a drum, the vibrating drumskin causes nearby air particles to vibrate. Then, other nearby air particles vibrate. The vibrating air particles make up a sound wave.

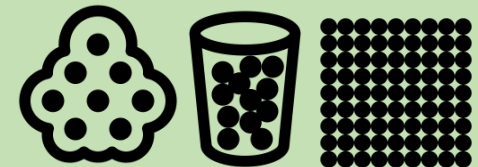


In a gas, particles are far apart. It takes a long time for one gas particle to hit another gas particle and move the sound energy along.

In liquids, particles are closer together so sound can travel faster through water than through air.

In solids, particles are packed tightly together and the sound energy can travel even faster.

Sound cannot travel through a vacuum because a vacuum (for example, space) does not contain matter.



gas

liquid

solid

Sounds get fainter as the distance from the sound source increases.