

Year 4 Science: How are sounds made? How can we insulate against sound?

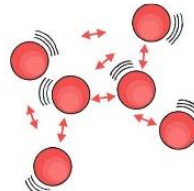
How are sounds made?



The sound source begins to vibrate.



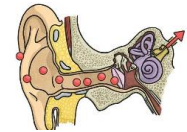
Vibrations pass from the sound source to particles in the air.



The vibrations pass from particle to particle.

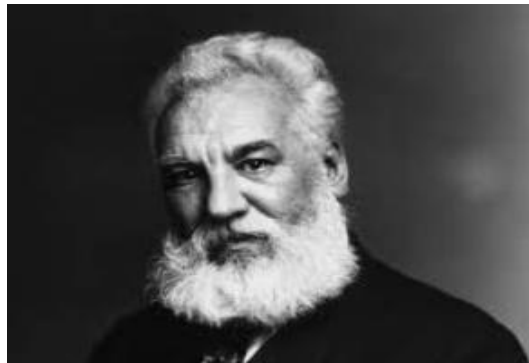


The vibrations reach your ear and pass into your ear.



Vibrations are changed into electrical signals and sent to your brain. Your brain tells you that you are hearing a sound.

Scientist

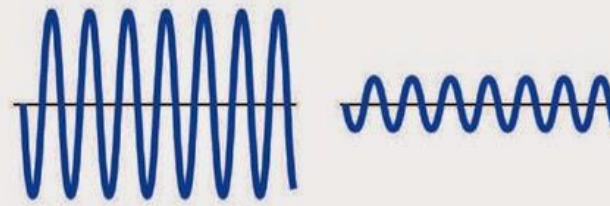


Alexander Graham Bell (1847-1922)

Alexander Graham Bell was a Scottish-born inventor, scientist and engineer who is credited with inventing and patenting the first practical telephone.

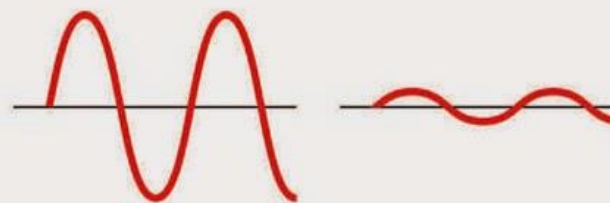
He also co-founded the American Telephone and Telegraph Company in 1885.

Volume and pitch



High pitch
High intensity (volume)

High pitch
Low intensity (volume)



Low pitch
High intensity (volume)

Low pitch
Low intensity (volume)

Vocabulary



Sound - something that can be heard



Vibrate - shaking or moving rapidly



Amplitude - the size of the vibration



Volume - how loud or quiet a sound is



Pitch - how high or low a sound is



Sound wave - how sound travels



Particles - a tiny piece of something



Insulate - prevent something getting through