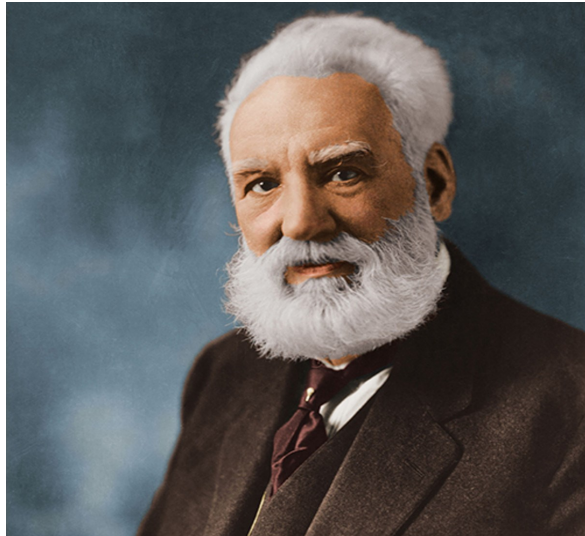


Year Four Science knowledge organiser– How are sounds made?

Alexander Graham Bell



Alexander Graham Bell was born in Edinburgh in 1846.

Bell's father, Alexander Melville Bell, was a phonetician, which is a scientist who studies speech sounds and how they are made and transmitted. His mother, Eliza Grace Bell, was deaf. In spite of this, she was an accomplished pianist. She home-schooled Bell and tried to give him a sense of curiosity about the world around him.

He was interested in how sound was transmitted and did lots of work with deaf people. In 1872, he travelled to Boston, America and opened his own School for the Deaf.

In 1874, he began working with Thomas Watson, an electrician. Together, they developed a way to transmit speech. This became the telephone. On 10th May, 1876, Bell made the first ever telephone call to Watson, who was in the next room.

Imagine life without telephones!

How do we hear sound?

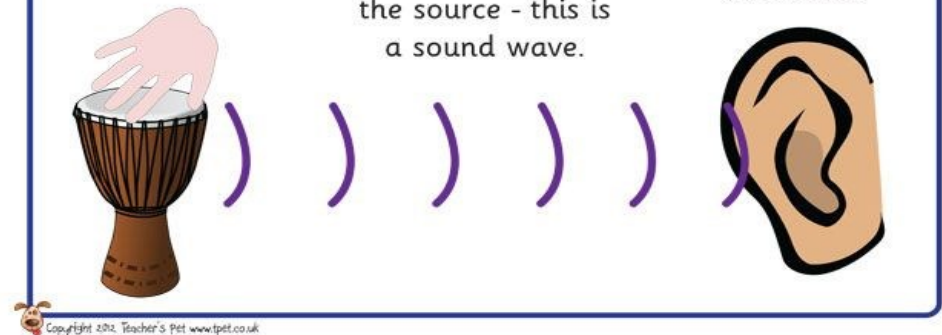
Sound is caused by **vibration**. If an object vibrates, the air particles called molecules close to it vibrate. This forms a **sound wave**. If the sound waves reach our ears and brain, then we hear the sound.

SOURCES OF SOUND

The drum skin vibrates and makes the air around the drum vibrate.

The vibrating air spreads away from the source - this is a sound wave.

Finally, your ear picks up the sound wave and your brain translates the sound.



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