

Hollingworth Primary School Knowledge Organiser

Topic: Sound	Year: 4	Strand: Physics
Famous scientist		Vocabulary Dozen

Alexander Graham Bell



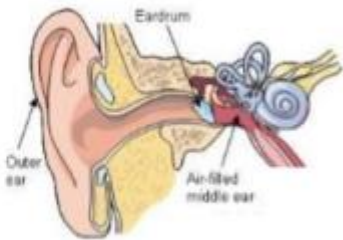
Scottish born scientist (1847) who invented the telephone in 1876 at the age of 29. He formed the Bell Telephone Company in 1887.

What should I already know?

identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (1-Animals including Humans)

Sound Travels to the Ear

Sounds are made when objects **vibrate**. The vibration makes the air around vibrate, and the air vibrations enter your ear. Our brain hears the vibrations and turns this into a sound.



How Sound is Made

- Sound travels through the air in waves.
- When you clap your hands, the air around your hands shakes. This is the air molecules vibrating.



- When air molecules inside the ear vibrate, they shake tiny hairs on the insides of the ears. The hairs are connected to nerves under the skin.



- These nerves send messages to your brain to tell you that you heard a noise.

Amplitude	A measure of the strength sound of a soundwave
Decibel	A measure of how loud a sound is
Pitch	How low or how high a soundwave is
Sound waves	How sound/vibrations travel through the air
Vibration	Moving (wobbling) very quickly back and forth
Volume	How loud or quiet a sound is
Soundproofing	A way to reduce the movement of sound.
Ear drum	A thin sheet in the ear
Cochlea	In the inner ear, translates vibrations to electrical signals.
Anvil, stirrup and hammer	The three small bones in the ear.
Vacuum	A place with very few (or no) particles to vibrate

Pitch of A Sound

The pitch of a sound is how high or low it is. The shorter the object the higher the pitch. The longer the object the lower the pitch. With stringed instruments, the tighter the string the higher the pitch of the sound.

What to learn and when

Week 1	First 4 terms in Vocabulary Dozen
Week 2	Terms 5-8 in Vocabulary Dozen
Week 3	The remaining terms in Vocabulary Dozen
Week 4	Alexander Graham Bell
Week 5	How sound is made
Week 6	How does sound travel to the ear
Week 7	The pitch of a sound