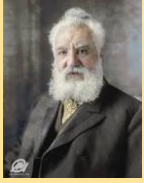




Key People/Scientists



Alexander Graham Bell (1847-1922)

He is most famous for his invention of the telephone. He first became interested in the science of sound because both his mother and wife were deaf.

Misconceptions/Key Facts

Misconception: Sound is a type of energy.

Fact: Sound is a type of energy transfer caused by the vibration of air.

Misconception: Loud sounds are made of more vibrations

Fact: Loud sounds are made by larger vibrations or vibrations with larger amplitude.

Misconception: Humans can hear all sounds that are made

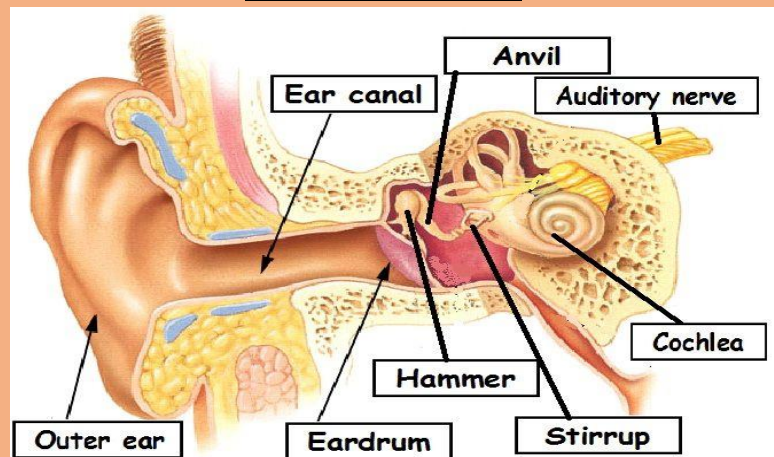
Fact: humans can only hear the 20Hz to 20000Hz other sounds below (infrasound) and above (ultrasound) are inaudible.

Key Questions

How are sounds made?	Sound is created when something vibrates and sends waves of energy (vibration) into our ears.
How does sound travel?	Sound travels as a wave vibrating the particles it is travelling in. The vibrations travel through the air or another medium (solid, liquid or gas) to the ear.
How is sound affected by pitch?	Pitch is the highness or lowness of a sound. A high pitch (like a whistle being blown) is caused by short vibrations and a low pitch (like thunder) is caused by long vibrations.
How does distance affect sound?	The stronger the vibrations, the louder the sound. Sounds are fainter the further you get from the sound source.
How do we hear sound?	Inside your ear, the vibrations hit the eardrum and are passed to the middle and inner ear. These are changed into electrical signals sent to your brain, which tells you that you are hearing a sound.

Diagrams/Visual Aids

The Parts of the Ear



Key Vocabulary

amplitude	The amplitude is a measure of the strength or intensity of the sound wave.
faint	Sound is fainter further away from the sound source.
frequency	The number of peaks of waves in a certain time period.
high pitch	Are sounds made by fast vibrations and have high frequencies.
loud	Sound is louder closer to the sound source.
low pitch	Are sounds made by slow vibrations and have low frequencies.
tension	The pitch of a note produced by a guitar depends on the length, thickness and tension of the string.
vibration	Vibration is a movement back and forth. Vibration is the feeling of two cymbals being slammed together.
volume	Loudness of a sound depends how big vibrations are.