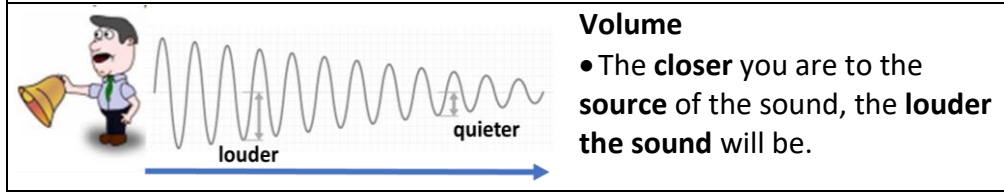
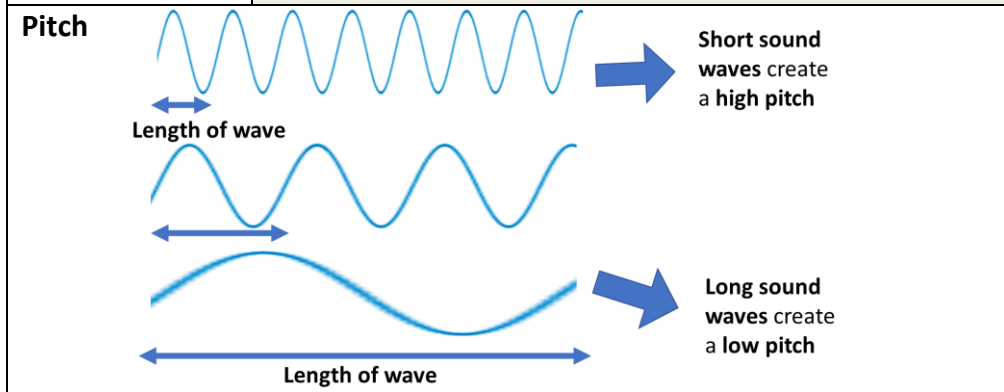


Key Vocabulary	
Amplitude	A measure of the loudness of a sound wave
Decibel	A unit to measure how loud a sound is
Energy	Is the ability to do work. Energy is how things change and move.
Frequency	A measure of how many times per second the sound wave cycles
Medium	Something that allows the transfer of energy from one source to another
Pitch	How high or low a sound is
Sound waves	Invisible waves which travel through air, water and solid objects as vibrations
Vibrations	A back and forth movement
Source	Where something comes from
Transmit	To pass from one place or person to another
Travel	How something moves around
Volume	How loud or quiet a sound is
Distance	The length between two objects
Oscillates	Moves back and forth



- The **further away** you are from the **source** of the sound, the **quieter** the sound will be

Alexander Graham Bell

- **Born in 1847** in Edinburgh, Scotland; **died in 1922**
- He invented the **telephone**. He first became interested in the science of sound because both his **mother and wife were deaf**
- He also invented the **metal detector** and the **Audiometer**

James West

- **Born in 1931** in Virginia, USA
- An African American inventor who developed **electret transducer technology**, now used in most modern **microphones**

How Sound is Made

- 1) Like light, **sound travels through the air in waves**
- 2) Sound is made by **particles vibrating**
- 3) When you clap your hands, the air around your hands **shakes**. This is the **air particles vibrating**. When air particles 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.

Sound travels much slower than light, whether in air or in water.

High pitch sound	Bird tweeting, whistle
Low pitch sound	Drums, trombone
Loud sound	Drill, thunder
Quiet sound	Whispering

Sound Vibrations Can Travel Through Different Materials

Solids	Liquids	Gases
Metal	Water	Air
Stone		Oxygen
Wood		
Plastic		