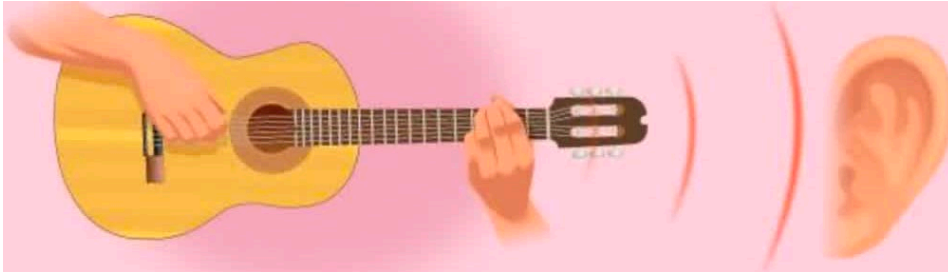
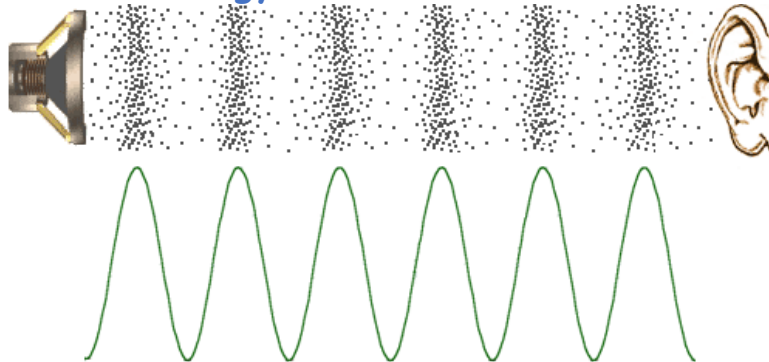


Waves - Sound KEY LEARNING

Sound is made when we have vibrations (particles vibrate/move).
E.g. a loudspeaker, a guitar, a drum.



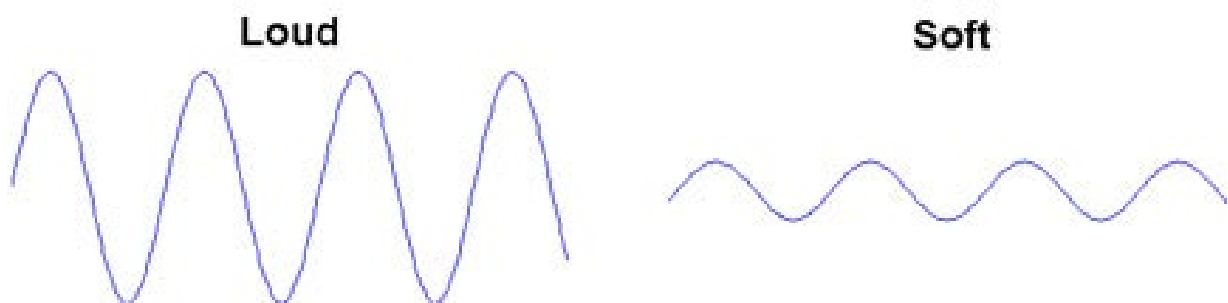
Here we see sound energy carried to our ears as vibrations.



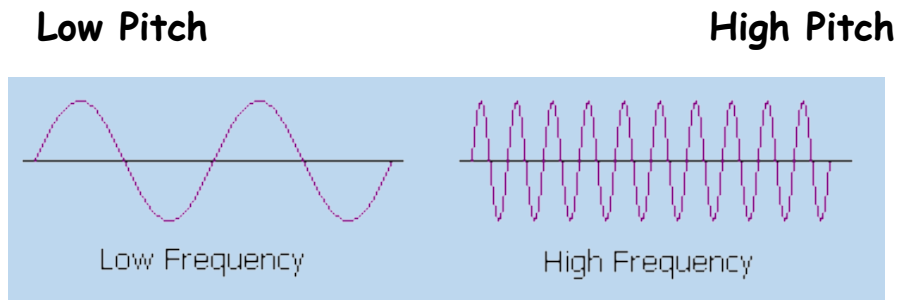
Sound consists of vibrations which travel as a wave through solids, liquids and gases. The denser the medium (like a solid), the faster sound travels.

Sound does not travel through the emptiness of a vacuum (where there are no particles).

A loud sound has a tall wave. A quiet sound has a shorter wave.



A high pitch sound has many waves.

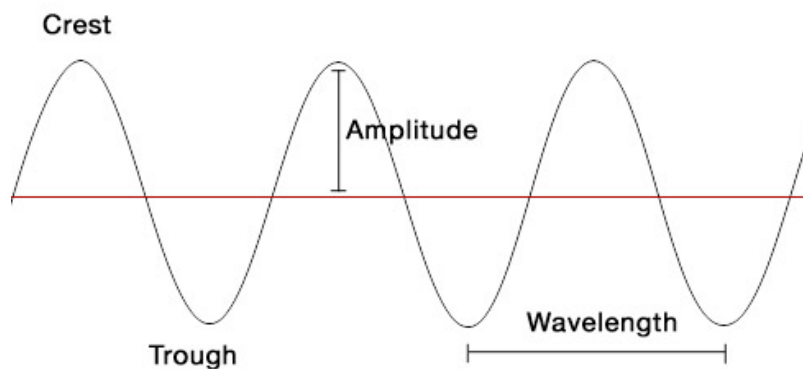


The greater the frequency (and therefore the shorter the wavelength), the higher the pitch.

A single wave looks like this:



Waves have a wavelength, an amplitude and a frequency.



Waves - Key Learning

A loud sound has a tall wave.

A high pitch sound has many waves.

A single wave looks like this:



Sound does not travel through a vacuum. A vacuum has no particles in it.

Vibrating particles carry sound energy to our ears.

Wave amplitude is the height of the wave (m).

Wavelength is the distance between two peaks in a wave (m).

Frequency is the number of waves produced in 1 second (Hz).