



**sound**

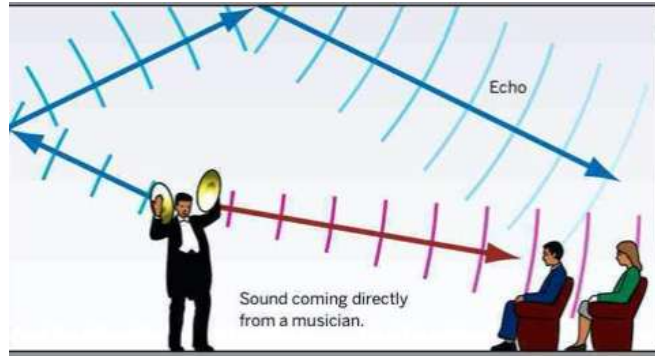
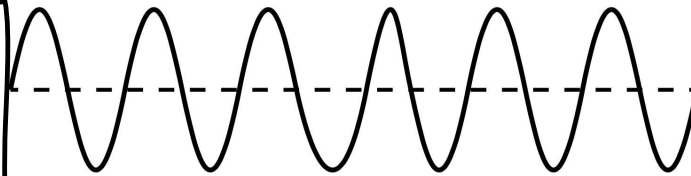
travels in **waves as vibrations**

sound waves can ONLY travel through a **medium**

A medium such as

- air (gas)
- water (liquid)
- wood (solid)

sound travels through anything with **particles** ✓



**sound**

is transfer of **energy**

**vibrations create sound**

regular and repeated movement of an object that moves backwards and forwards

sound can't travel in a vacuum ✗ (no particles)

**sound travels in air**

340 metres each second

**properties of sound**

**pitch**

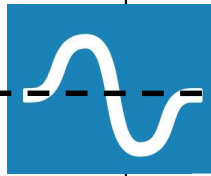
(frequency)

number of sound waves each second

sounds high or low

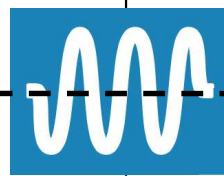
how frequent waves are

**low pitch**



**low** frequency = low number of waves each second (tuba)

**high pitch**



**high** frequency = high number of waves each second (trumpet)

3 things that affect

**pitch**

(frequency) of the sound wave

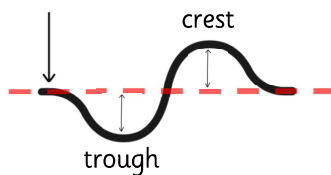
- size
- length
- tightness

of the thing that is vibrating

**loudness**

size of the sound waves

rest point (where there would be no sound)



bigger the waves

more energy

louder it sounds

**2 things that affect loudness**

amount of energy

amount of stuff vibrating (larger sound boxes can make larger sounds)



**hearing**

sounds travel through a medium (air, water, wood) and enter your ear canal

sounds vibrate the ear drum, middle ear and inner ear

vibrations send messages to your brain



**sound fades**

vibrations get fainter as the distance from the source increases

the same amount of energy is spread over a larger area

