Science study

INTRODUCE
Sound

Year ____

Term ____

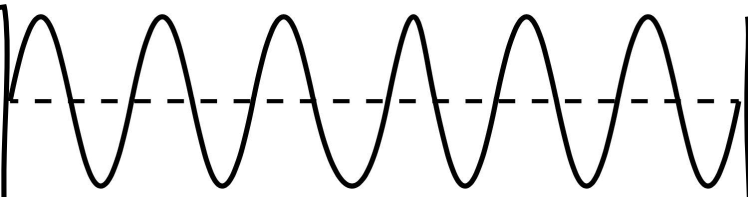
sound

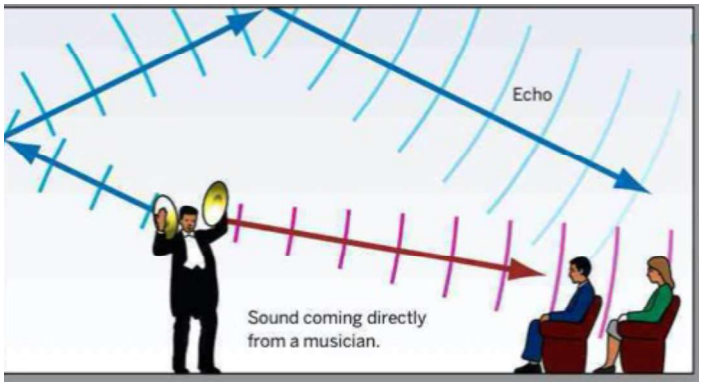
travels in **waves as vibrations**

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

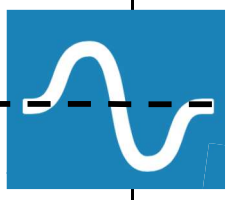
pitch
(frequency)

number of sound waves each second

sounds high or low

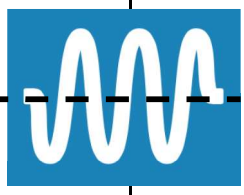
how frequent waves are

low pitch



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

high pitch



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

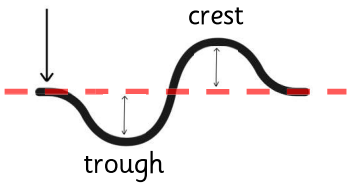
3 things that affect **pitch** (frequency) of the sound wave

- size
- length
- tightness

of the thing that is vibrating

loudness

size of the sound waves



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