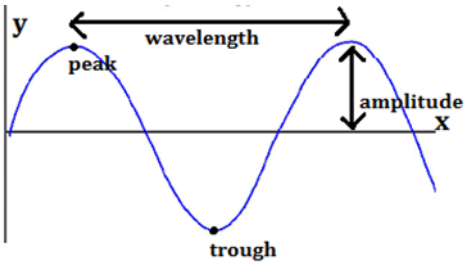


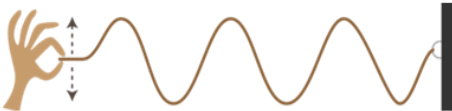


## 1. Waves

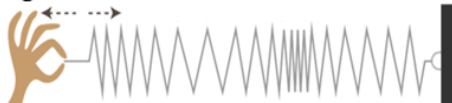


Key-word	Definition
Transverse wave	A wave where the vibration is perpendicular to the direction of travel
Longitudinal wave	A wave where the vibrations are parallel to the direction of travel
Frequency	The number of wave fronts passing a fixed point every second (measured in Hz)

Transverse wave



Longitudinal wave

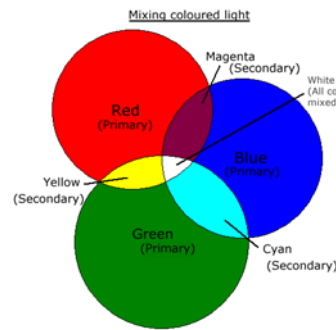


## 2. Light (transverse wave)

Keywords	
Reflection	Light bounces off surface
Primary colours	Red/Blue/Green makes all colours
Eyes	Senses the light we see
Filters	Absorbs light of the same colour
Transmitted/Emitted	Light that is given out
Absorbed	Light that is taken
Scattered	Light that is spread when it reflects
Boundary	A place where lights bounces off or bends

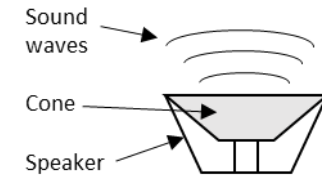
## 4. Colours

Primary colours	Secondary Colours
Red	Magenta
Green	Cyan
Blue	Yellow



## 5. Sound

Sound waves are produced by all vibrating objects. Loudspeakers work by converting electrical energy into kinetic energy. This moves the cone which creates the sound waves.



## 6. More sound

Humans can hear sound in the 20Hz – 20KHz range.  
Dogs can hear up to 50Hz

Sound travels faster through liquids and solids than it does through a gas because the particles in a gas are further apart

Substance	Speed of sound
Air	343 m/s
Water	1493 m/s
Steel	5130 m/s

## 3. Law of reflection

Incidence angle	The angle made between the incident ray to the normal line
Normal line	This line is 90 degrees to the mirror
Reflected angle	The angle made between the reflected ray to the normal line
Mirror	Light reflective surface
Law of reflection	Angle of incident = angle of reflection