Year 9 Light & Sound	KEY Words	Vocabulary List

- ❑ absorb
- ❑ angle
- ❑ angle of incidence
- ❑ angle of reflection
- ❑ aqueous humor
- ❑ blind spot
- ❑ camera
- ❑ cochlea
- ❑ concave
- ❑ conjunctiva
- ❑ converge
- ❑ convex
- ❑ cornea
- ❑ critical angle
- ❑ cyan
- ❑ decibel
- ❑ dispersion
- ❑ diverge
- ❑ echo
- ❑ electromagnetic wave
- ❑ fibre optic
- ❑ filter
- ❑ focal point
- ❑ focus
- ❑ fovea
- ❑ hypermetropia
- ❑ incident ray
- ❑ insulating
- ❑ inverted
- ❑ iris
- ❑ kaleidoscope
- ❑ laser
- ❑ lens
- ❑ light source
- ❑ long sighted
- ❑ longitudinal wave
- ❑ luminous
- ❑ magenta
- ❑ magnify
- ❑ medium
- ❑ microscope
- ❑ mirror
- ❑ myopia
- ❑ normal
- ❑ opaque
- ❑ periscope
- ❑ pinhole camera
- ❑ plane
- ❑ primary (light) colour
- ❑ prism
- ❑ pupil
- ❑ ray diagram
- ❑ real image
- ❑ reflect
- ❑ reflected ray
- ❑ refract
- ❑ refraction
- ❑ retina
- ❑ secondary (light) colour
- ❑ shadow
- ❑ short sighted
- ❑ sound wave
- ❑ spectrum
- ❑ telescope (optical)
- ❑ total internal reflection
- ❑ translucent
- ❑ transmission
- ❑ transparent
- ❑ transverse wave
- ❑ upright
- ❑ vibration
- ❑ virtual image
- ❑ vitreous humor
- ❑ white light

Additional words:

GLOSSARY

- **absorb** - light waves are captured by an object, not reflected
- **angle** - number of degrees
- **angle of incidence** - angle between the incident ray and the normal
- **angle of reflection** - angle between the reflected ray and the normal
- **aqueous humour** - watery substance that is between the lens and the cornea
- **blind spot** - point of the retina where the optic nerve leads into the brain that has no light-sensitive cells
- **camera** - a device that takes photos of images
- **cochlea** - coiled tube in the inner ear that converts sound energy into electrical impulses
- **concave** - curved inwards
- **conjunctiva** - clear membrane that covers the sclera (white part of the eye) and lines the inside of the eyelids
- **converge** - come together
- **convex** - curving out or bulging outward
- **cornea** - outer transparent surface of the eye
- **critical angle** - angle of incidence that gives an angle of refraction of 90°
- **cyan** - Light blue/turquoise colour
- **decibel** - the unit used to measure the intensity of a sound
- **dispersion** - splitting up of white light into the colours of the spectrum
- **diverge** – spread out
- **echo** - a reflection of sound, arriving at the listener some time after the direct sound
- **electromagnetic wave** – a wave that is both electric and magnetic in nature and that can travel through a vacuum, e.g., light waves, radio waves, microwaves
- **fibre optic** - a glass or plastic “optical” fibre that carries light along its length
- **filter** - an object that blocks some colours and lets others through
- **focal point** - the point on the centreline of a lens or mirror at which reflected or refracted rays converge
- **focus** - bringing together light to make a clear image; the region that can be seen clearly and where all objects appear to have sharp outlines
- **fovea** - area of retina responsible for our central, sharpest vision
- **hypermetropia** – far-sightedness or long-sightedness
- **incident ray** - light ray that hits a surface
- **insulation** – (sound) Materials used in buildings etc. To reduce the amount of sound transfer to and from the building
- **inverted** – upside down

- **iris** - coloured muscular ring that controls the size of the pupil in a human eye
- **kaleidoscope** - the name given to a toy that uses several mirrors all facing inwards. The kaleidoscope produces many images of any object placed inside and this may give many new patterns
- **laser** - concentrated beam of mono-coloured light
- **lens** – (of eye) part of the eye that focuses light onto the retina**;** transparent glass or plastic that refracts light
- **light source** - object able to generate its own light (luminous)
- **long sighted** - a disorder of the eye which means that the muscles cannot pull the lens far enough for a person to be able to see short distances clearly.
- **longitudinal wave** - waves that have vibrations along or parallel to their direction of travel eg sound waves
- **luminous -** object that gives off light
- **magenta -** pinky purple colour formed by mixing red and blue light; a secondary colour
- **magnify-** cause objects to appear larger than they are
- **medium -** substance through which waves can travel
- **microscope -** optical instrument for viewing small objects
- **mirror -** polished or smooth surface that forms images by reflection
- **myopia -** near sighted
- **normal -** imaginary line at right angles to where a light ray strikes a surface
- **opaque -** a material that does not allow visible light to pass through it
- **periscope -** an instrument for observation using mirrors (or prisms) that's lets you see over walls or around corners
- **pinhole camera -** very simple camera with no lens and a single very small hole
- **plane -** mirror with a flat surface
- **primary (light) colour –** one of three colours (red, blue and green) that combine to give all the other colours seen by the human eye
- **prism -** triangular block of glass
- **pupil -** the hole in the iris that allows light to enter the eyeball
- **ray diagram -** diagram that shows which way light rays travel
- **real image -** occurs when light rays actually pass through the point where the image is
- **reflect –** bounce off a surface
- **reflected ray -** light ray that bounces off the surface of a mirror or off water
- **refract -** bend light as it passes through a transparent substance
- **refraction -** change in the direction of a light ray as it enters a new medium
- **retina -** light sensitive surface at the back of the eye that converts light energy into electrical impulses

- **secondary (light) colour -** light colours that can be made by mixing together primary colours; yellow, cyan and magenta
- **shadow -** area of darkness where light is blocked by an object
- **short sighted -** defect of eye where person sees nearby objects clearly but distant objects appear blurred; images focus in front of the retina
- **sound wave -** compressions and expansions of air created by a vibrating object
- **spectrum -** all the colours of the rainbow that make up sunlight
- **telescope (optical) -** instrument designed for the observation of remote objects; uses mirrors and lenses
- **total internal reflection -** occurs when light is completely trapped within a medium such as glass
- **translucent -** a material that scatters visible light as it passes through it
- **transmission -** passing through. Heat, sound and light can be transmitted through some objects.
- **transparent -** a material that allows visible light to pass through it without scattering
- **transverse wave -** disturbance caused by the wave is perpendicular to the wave's direction e.g. up and down as wave travels from left to right
- **upright –** right way up (opposite of inverted)
- **vibration –** movement of particles back and forth across a central position
- **virtual image -** occurs when light rays don't pass through the point where the image is located
- **vitreous humour -** the clear gel that fills the space between the lens and the retina of the eyeball
- **white light -** formed from a mixture of different-coloured lights