Glossary Chapter 3

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Key word	Definition
absorb	Taken into a material.
angle of incidence	The angle between the incident ray and the normal line.
angle of reflection	The angle between the reflected ray and the normal line.
brain	The organ in the human body that processes signals from receptors.
charge-coupled device (CCD)	A grid of pixels at the back of a digital camera that absorbs light and produces an image.
continuous	A variable that has values that can be any number.
converging	Bringing rays of light together.
convex	A lens that produces converging rays of light.
cornea	The transparent layer at the front of the eye.
diffuse reflection	Reflection from a rough surface.
dispersion	The splitting up of a ray of light of mixed wavelengths by refraction into its components.
emit	To give out.
endoscope	A medical instrument for seeing inside the human body.
еуе	Organ of sight, which focuses and detects light.
filter	A piece of material that allows some radiation (colours) through but absorbs the rest.
focal point	The point at which the rays refracted by a convex lens cross over.
focus	Another name for the focal point.
frequency	The number of complete waves or vibrations produced in one second (measured in hertz).
image	The point from which rays of light entering the eye appear to have originated.
incident ray	The ray coming from a source of light.
inverted	Upside down.
iris	The coloured part of your eye.

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law of reflection	The angle of incidence is equal to the angle of reflection.
lens	A device made of shaped glass that focuses light rays from objects to form an image.
light-time	Distance measured in terms of how far light travels in a given time.
luminous	Gives out light.
medium	The material that affects light or sound by slowing it down or transferring the wave.
non-luminous	Objects that produce no light.
normal	An imaginary line at right angles to a surface where a light ray strikes it.
opaque	Objects that absorb, scatter, or reflect light and do not allow any light to pass through.
optic nerve	A paired sensory nerve that runs from each eye to the brain.
photoreceptors	Specialised cells that are sensitive to light.
pinhole camera	A simple camera made of a box with a small hole at the front and a screen at the back.
pixel	A picture element found at the back of a digital camera.
plane	A mirror with a flat, reflective surface.
primary colour	The colours red, blue, and green.
prism	A triangular-shaped piece of glass used to produce a spectrum of light.
pupil	The hole in the front of your eye where light goes in.
real (image)	An image that you can put on a screen; the image formed in your eyes.
reflect	Bounce off.
reflected ray	The ray that is reflected from a surface.
refraction	The change in direction of a ray or wave as a result of its change in speed.
retina	The layer of light sensitive cells at the back of the eye.
secondary colour	Colours that can be obtained by mixing two primary colours.

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source	Things that emit (give out) light or sound.
spectrum	A band of colours produced when light is spread out by a prism.
specular reflection	Reflection from a smooth surface.
tertiary colour	A colour made by mixing three primary colours.
translucent	Objects that transmit light but diffusing (scattering) the light as it passes through.
transmit	When light or other radiation passes through an object.
transparent	Objects that transmit light and you can see through them.
vacuum	A space in which there is no matter.
virtual	An image that cannot be focused onto a screen.
wave	A vibration that transfers energy.