

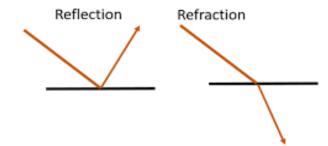
Knowledge Bank: **Year 6 Science** – Life-saving Light!

Key Vocabulary:

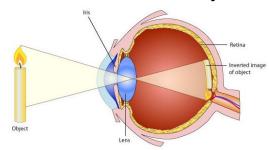
light source	An object that emits light.
	Natural sources include the
	sun and stars. Manmade
	sources include light bulbs and
UV rays	candles.
	Ultraviolet radiation is a type of
reflect	energy produced by the sun.
	When a beam of light hits a
	surface and bounces off at the
refraction	same angle it hits it.
	When a beam of light changes
	direction or bends when it
	moves from one material to
	another.
shadow	The absence of light which
	casts a dark shape matching
transparent	the object.
	A material that allows all light
ti di lopai ont	to pass through it.
translucent	A material that allows some
	light to pass through, like
	tracing paper or stained-glass
	windows.
opaque	A material that does not allow
	any light to pass through it.
periscope	An apparatus allowing an
	observer to see objects due to
	reflection of light.
blackout	A period when all lights were
	turned off to prevent them
	being seen in the Blitz.

Diagrams:

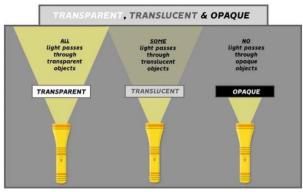
How light beams can be manipulated:



Cross section of a human eye:



Transparent, Translucent & Opaque:



Key Facts:

Light energy is made of photons and is the only form of energy that can be seen by the human eye.

Light travels from light sources to our eyes or from light sources to objects and then to our eyes.

The direction of a beam of light can be manipulated by reflection or refraction.

The refraction of light can change how we perceive objects when viewing them through water.

Objects are seen because they give out or reflect light into the eye.

Our optic nerves at the back of our eyeballs send signals to our brain of what we can see.

Shadows are evidence of how light travels in a straight line.

A shadow is cast when an object blocks light from passing through it.

An object that is closer to a light source creates a larger shadow.