

## Knowledge Organiser: AUTUMN 1

Year 6 Science: Light

Vocabulary	Meaning		
Pupil	Located in the centre of the iris, allows light into the eye		
lris	Coloured part of the eye that regulates the amount of light by controlling the size of the pupil		
Cornea	Clear, dome-shaped surface that covers the front of the eye		
Retina	Layer of nerve cells that sense light and sends signals to the brain		
Optometrist	Eye doctor that can examine, diagnose and treat your eyes		
Snellen Chart	An eye chart used to measure visual activity		
Emitting	To give off e.g., to emit a bright light		
Light source	Where light comes from – it can be natural or artificial		
Optic nerve	Transmits information from the retina to the brain		
Lux	The measure of light – how much light falls on a surface		
Silhouette	the dark shape and outline of something visible in restricted light		
Shadow	A dark area where light is blocked by an object		
Opaque	Not able to see through		
Transparent	Allowing light to pass through so that objects behind can be seen		
Rotation	Movement of Earth on its axis counterclockwise		
Refraction	The bending of light as it passes from one transparent substance to another		
Convex lens	Curve outwards; bends light rays closer together		
Concave lens	Curve inwards; spreads light rays further apart		
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Pupil	Optic nerve	Opaque	Transparent		
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Key knowledge – Features of the Eye					

**Lens**: changes the focal distance of the eye so it can focus on objects at various distances.

<u>Vitreous:</u> a clear, colourless fluid that fills the space between the lens and the retina of your eye.

<u>Optic Nerve</u>: transfers visual information from the retina to the vision centres of the brain via electrical impulses.

<u>Macula</u>: responsible for all our central vision and most of our colour vision.



## Key knowledge – How does light travel?

Light enters your eye through the pupils and sends signals to the brain through the nerve. These signals tell us what we are seeing.

Light waves travel from a source in straight lines that spread out in all directions like rays. Light rays reflect off surfaces – different surfaces reflect differently.



