



Year 6 Knowledge Organiser: Light

Essential vocabulary	
light source	A light source makes light by using another kind of energy.
light rays	A thin line of light.
darkness	The absence of light.
reflect	To throw/bounce light back.
reflection	The image or likeness which is made by a reflective surface (like in a mirror).
transparent	Light can pass through ('see-through')
translucent	Not transparent but allows some light to pass through.
opaque	Allows no light to pass through.
shadow	A shadow is the darkness formed when light rays are blocked.
	Bridging backwards: Year 3 - Light

Question	Essential Knowledge
What is light?	Light is a form of energy that travels in a wave as a straight line from a source .
Why do we need light to see things?	Light travels from a source and reflects off an object. This light then reflects in a straight line to your eye so that you can see the object.
What is the law of reflection?	The law of reflection states that the angle of incidence is equal to the angle of reflection .
What is refraction?	Refraction is when light bends as it passes from one medium to another. For example, light bends when it moves from air into water.
How is a shadow formed?	A shadow is always the same shape as the object that casts it. This is because when an opaque object is in the path of light travelling from a light source , it blocks the light rays that hit it, while the rest of the light continues travelling.
How can you change the shape or size of a shadow?	Shadows can also be elongated or shortened depending on the angle of the light source . A shadow is also larger when the object is closer to the light source. This is because it blocks more of the light.
How did Isaac Newton show the visible light spectrum?	Isaac Newton shone a light through a transparent prism , separating out light into the colours of the rainbow - the colours of the spectrum. All the colours together merge and make visible light .
	Bridging forwards: Year 7 - Physics

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Skills

- Demonstrate that light travels in straight lines in different ways e.g. beam of light reflecting off mirror, light down a pipe, through the hole of two cards, periscopes
- Investigate the shape of shadows and link this to light travelling in straight lines
- Investigate prisms
- Investigate what happens when light hits a mirror

Knowledge

- Recognise that light appears to travel in straight lines
- Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
- Explain that when white (visible) light is shone through a transparent prism it separates into the colours of the rainbow.