St Luke's Knowledge Organiser

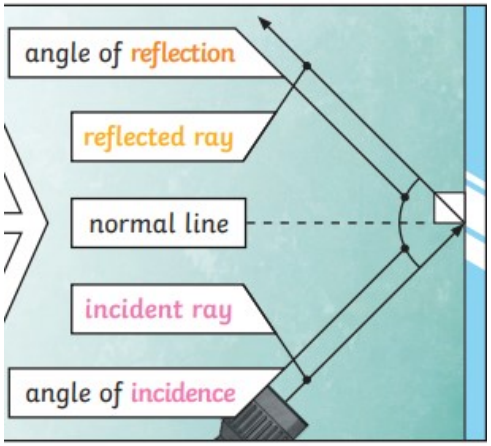
Year 6 - Light

What I should already know

- Sticky knowledge from Year 4 light unit
- Know that common appliances run off electricity
- Construct, identify and label simple circuits
- Identify common conductors and insulators

Working Scientifically

- Investigate the relationship between light sources, objects and shadows by using a range of opaque objects.
- Investigate what happens when a light source is at a different distance from an opaque object.
- Observe how light is reflected.
- Extend your experience of light by looking at a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water, and coloured filters.



Sticky Knowledge

- Light travels from a **source** and it always travels in a straight line. If an object blocks the light's path, it will form a **shadow**. When light is blocked by a reflective surface, the light changes direction.
- Humans are able to see things because **light** travels into the eyes which then send signals to the brain. Without light, humans wouldn't be able to see anything at all.
- All surfaces **reflect** light to some degree. Some surfaces **reflect** a lot of light while some reflect very little.
- If a surface did not **reflect** any light you would not be able to see it because it is the light's reflection that travels to the eye in order to see objects.
- All surfaces **absorb light**. The less an object reflects light, the more it absorbs it.

Vocabulary

light	Form of **energy** that travels in a wave from a **source**.
light source	An object that makes **light**
shadow	An area of **darkness** where **light** has been blocked.
cornea	A **transparent** film over the **iris**.
lens	The **lens** focuses **light** to the **retina**.
sclera	The white part of the eye.
optic nerves	**Nerves** that carry signals to the brain.
retina	Changes **light** into **nerve signals** to send to the brain.
pupil	The black part of the eye which lets **light** enter.
iris	The colourful part of the eye which controls how much **light** goes through the **pupil**.
reflection	When **light** from an object changes direction as a result of hitting a **reflective** material e.g. a mirror.
light wave	A characteristic of light that describes how it travels.
transparent	An object that allows **light** to travel straight **through** it.
translucent	An object that allows **some light** to travel through it.
opaque	An object that **does not allow** light to travel through it.
refraction	When **light** bends as it passes from one medium to another.