



Knowledge Organiser

Learning Journey: Turn it up- Light



What is Light?

Light is a type of energy that makes it possible for us to see the world around us.

We need light to see. Light comes from different sources called light sources; our main natural light source is the sun. Other sources include fire, stars and man-made light sources such as light-bulbs and torches.

Thanks to light, we see life in glorious colour: our eyes see different wavelengths of light as different colours.

Too much sun can damage the eyes. As with skin damage, it is the ultraviolet (UV) radiation from the sun which causes problems. Damage to the eyes from UV radiation builds up over our lifetime and can have a permanent effect on our eyes and eyesight. It is important not to look directly at the sun!



Reflection is how we use light to see around us.

Reflection is when light hits the surface of an object and then that light travels to our eyes so we can see. Objects such as tables and chairs reflect an image of the object itself so we can see it. Very smooth, shiny surfaces such as mirrors, water and some metals reflect images too; because light rays stream in straight lines, flat mirrors reflect things back to us and show them as they are (but reversed).

The moon reflects sunlight so we can see it shining brightly in the sky.

Shadows are created when an opaque (non-see through) object blocks the light source. Shadows change depending on the distance the object is from the light source and the position of the light source.

KEY TERMINOLOGY

Absence-The non-existence or lack of

Dark-Absence of light

Iris – coloured part of the eye

Lens – the lens in the eye does the focusing, like the lens of a camera

Opaque-Not able to be seen through

Pupil – the hole through which light passes into the eye

Reflected light – light that bounces off a shiny surface

Refracted light – light that appears to bend when it travels from one transparent material to another

Retina – a layer at the back of the eyeball that contains cells sensitive to light, which trigger nerve impulses that pass via the optic nerve to the brain, where a visual image is formed.

Translucent-A translucent material lets light pass through, but objects on the other side can't be seen clearly.

Transparent-allowing light to pass through so that objects behind can

