



## Sun Safety

# Knowledge Organiser Y3 Light

## Light Facts!

Light travels in straight lines.

Light travels at around 300,000 kilometres per second



Light will travel through transparent objects...  
...but not opaque ones.

The invisible light waves from the sun are called 'ultraviolet'

## Shadows



A shadow is formed when an opaque object blocks the light.



A shadow will get smaller the further the object is from the light source

Shadows change angle and length during the day due to the position of the sun in the sky.



## KEY VOCABULARY (See also diagrams / pictures)

Key Word	Definition
transparent	A material that allows light to pass through it.
opaque	A material which is not able to be seen through.
translucent	A material that allows light but not detailed shapes to pass through.
shadow	A dark shape made on a surface when an object blocks light.
sun protection	Something which prevents or reduces the effect of the sun i.e. sun hat, sunglasses, sun cream.
reflection	An image seen in a mirror; it happens due to a change in direction of the light wave.
fluorescent	A brightly coloured reflective surface - often used by cyclists.
UV rays	Short light waves made by the sun, which are harmful to our skin. (ultra-violet)

### Lessons:

1. Explain the concept of darkness, identifying sources of light and the role of light in vision.
2. Investigate how light reflects from different surfaces.
3. Explain why light from the sun can damage eyes and ways to protect.
4. Explain the terms transparent, translucent and opaque, and group objects based on these properties.
5. Investigate the role of different materials in the formation of shadows.
6. Investigate patterns in the formation of shadows, and the factors that affect their shape and size.