

# KNOWLEDGE ORGANISER – Light

## How do we see?

Translucent, Transparent & Opaque



Light travelling and reflecting on a smooth surface



Light travelling and reflecting off a rough surface

### KEY FACTS!

Light travels in a straight line

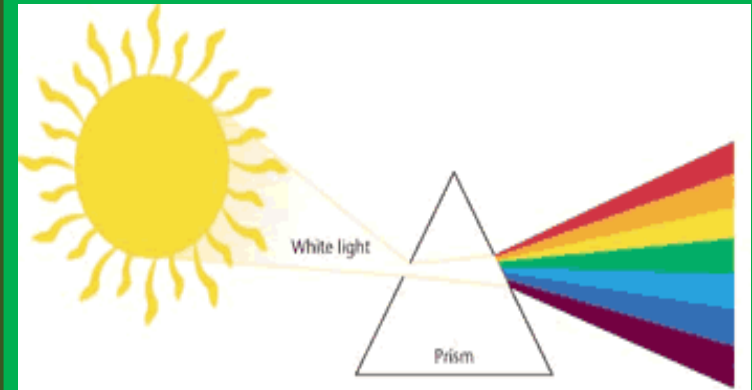
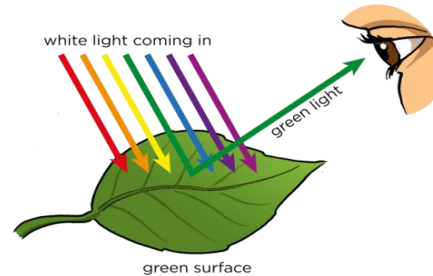
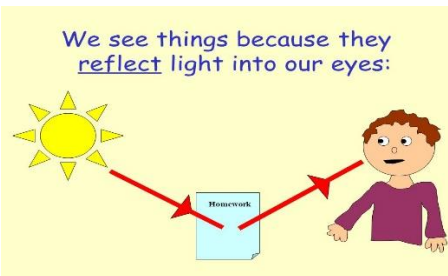
Light travels faster than sound

Darkness is caused by the absence of light

The moon does not emit its own light – it reflects the sun

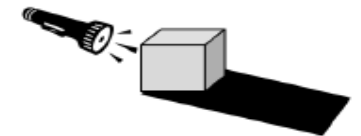
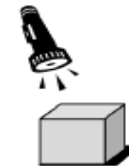
The size and shape of a shadow changes based on the distance and angle from the light source

Ultraviolet light (UV) is a type of radiation you can't see but can be dangerous. UV rays come from the sun



When white light passes through a prism, it is refracted. The light changes direction and is then dispersed (spread out) as it exits the prism. Depending on the shape of the prism and the angle of the light, we can often see the spectrum of colours.

Term	Definition
Light Source	An object that produces its own light e.g. sun
Reflection	When light hits a surface and 'bounces off'
Refraction	When light passes through a different object and its direction changes
Spectrum	A range of colours caused when white light is refracted. A rainbow shows a spectrum of colours
Prism	A solid 3D shape where the two end faces are similar and parallel
Shadow	A dark area or shape caused by the blockage of light



As the light source moves higher in relation to the object, the shadow gets shorter. As the light source moves lower the shadow gets