

# Light – How does light affect our perception

- White light comprises all the colours of light
- 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
- We see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- Light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
- Know that when light passes from one medium to another (e.g. from air to water), it changes direction; this is called refraction

Key Vocabulary	
Spectrum	The group of different colours including red, orange, yellow, green, blue, indigo, and violet seen when light passes through a prism and falls on a surface or when sunlight is affected by drops of water (as in a rainbow)
Translucent	Not transparent but clear enough to allow rays of light to pass through.
Angle of reflection	<b>Reflection</b> occurs when a light ray hits a surface and bounces off. The <b>angle</b> at which the ray hits the surface is equal to the <b>angle</b> at which it bounces off. If the surface is made very flat and smooth by polishing, all the light rays bounce off in the same direction.
Refraction	The bending of a ray when it passes at an angle from one medium into another in which its speed is different (as when light passes from air into water) <b>refraction</b> .
White light	<b>White light</b> is defined as the complete mixture of all of the wavelengths of the visible spectrum. This means that if I have beams of <b>light</b> of all of the colours of the rainbow and focus all of the colours onto a single spot, the combination of all of the colours will result in a beam of <b>white light</b>

