


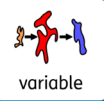
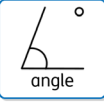




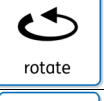
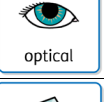

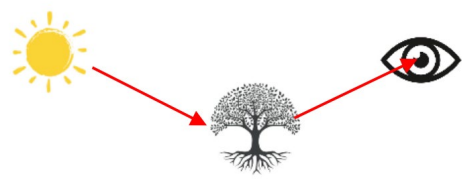


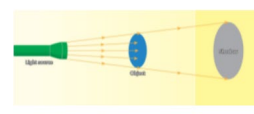
Key Vocabulary	
 light	A form of energy
 light source	An object that provides its own light
 reflected	When light shines on a surface and bounces back
 variable	Any one of the elements of an experiment which could be changed
 angle	The space between 2 intersecting lines
 mirror	A surface that reflects a clear image
 opaque	It describes materials which do not allow light to travel through
 transparent	It describes materials which allow light to travel through
 sunshade	A device giving protection from the sun
 rotate	To turn an object around a centre point
 optical	Relating to the science of optics
 spectrum	A band of several colours

How we see



Light travels in **straight lines**. The light **rays** from a light source **reflect** off the object we are looking at. The light travels in a **straight line** and enters the eye through our **pupil**.

Shadows




Opaque objects block the light rays so they can only travel around the edges of the object in straight lines. That is why a shadow is the same shape as the object.

The **closer** an object is to the light source, the **bigger** the shadow.

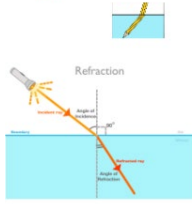
The **further away** the object is from the shadow, the **smaller** the shadow.

Colours



Reflection


Light reflects off shiny, bright or light surfaces. That is why you can see your reflection when you look in a mirror.



Refraction

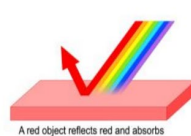
Water and bent shiny surfaces cause light rays to be reflected at different angles, meaning the reflection of the image is distorted.

Bending light

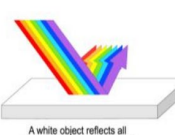


White light is made up of the colours of the rainbow. When light is refracted through a transparent object, a rainbow is formed.

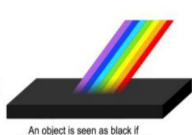
Absorption and reflection of light



A red object reflects red and absorbs others colors of white light



A white object reflects all colors of white light equally



An object is seen as black if it absorbs all colors of white light