



### Lesson Sequence



1. Explore how light travels



2. Explore reflection



3. Explore reflection and explain how it can be used to help see things



4. Investigate how shadows can change

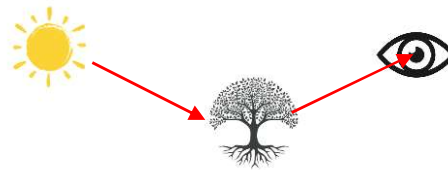


5. Investigate how we can show why shadows have the same shape as the object that cast them



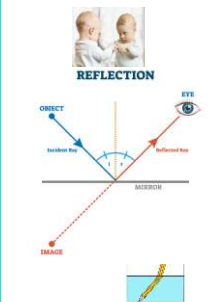
6. Explore light phenomena

### 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**.

### Bending Light



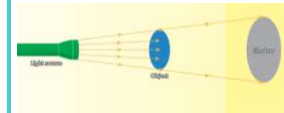
#### Reflection

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.

### 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.

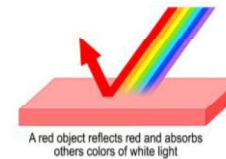
The **further away** the object is from the shadow, the **smaller** the shadow.

### Colours

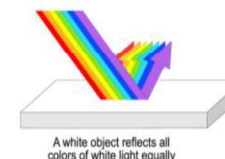


#### Absorption and reflection of light

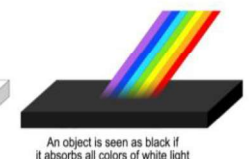
White light is made up of the colours of the rainbow. When light is refracted through a transparent object, a rainbow is formed.



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



A white object reflects all colors of white light equally













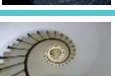

An object is seen as black if it absorbs all colors of white light



## Unit Rocket Words: Year 6 Light



### Rocket Words

	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 all 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