Meadow Vale Primary School		
Topic: Light	**Subject:** Science	**Year:** 6

What should I already know?

- Recognise that we need light in order to see things and that dark is the absence of light
- Notice that light is reflected from surfaces
- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes
- Recognise that shadows are formed when the light from a light source is blocked by a solid object
- Find patterns in the way that the size of shadows change

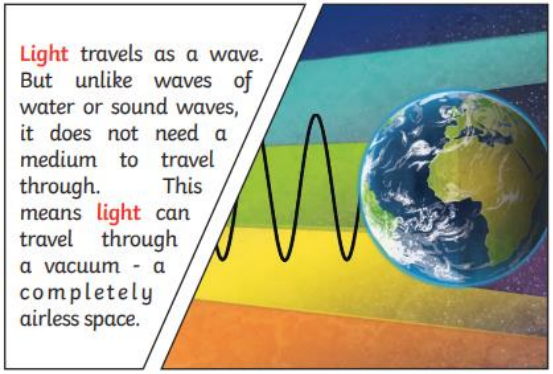
Scientific Skills

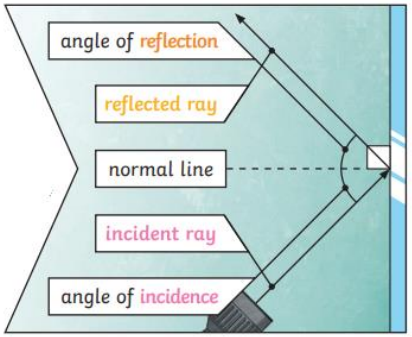
- To recognise that light appears to travel in straight lines
- To use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- To explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them

Vocabulary

Incident Ray	A ray of light that hits a surface.
Light	A form of energy that travels in a wave from a source.
Light Source	An object that makes its own light.
Opaque	Describes objects that do not let any light pass through them.
Prism	A prism is a solid 3D shape with flat sides. The two ends are an equal shape and size. A transparent prism separates out visible light into all the colours of the spectrum.
Reflected Ray	A ray of light that has bounced back after hitting the surface.
Reflection	Reflection is when light bounces off a surface, changing the direction of a ray of light.
Refraction	This is when light bends as it passes from one medium to another e.g. light bends when it moves from air into water.
Shadow	An area of darkness where light has been blocked.
The Law of Reflection	The law states that the angle of the incident ray is equal to the angle of the reflected ray. Whenever light is reflected from a surface, it obeys this law.
Translucent	Describes objects that let some light through, but scatters the light so that we can't see through them properly.
Transparent	Describes objects that let light travel through them easily, meaning you can see through the object.
Visible Spectrum	Light that is visible to the human eye. It is made up of a colour spectrum.

Light Diagrams





The angle of reflection is the angle between the normal line and the reflected ray of light.

The angle of incidence is the angle between the normal line and the incident ray of light.