



### Let's Remember

Recognise that you need light in order to see things and that dark is the absence of light.



Know that light from the sun can be dangerous and that there are ways to protect them.

Recognise that shadows are formed when the light from a light source is blocked by an opaque object.



Find patterns in the way that the size of shadows changes.

**Allen Explore Science**

**Cycle A**

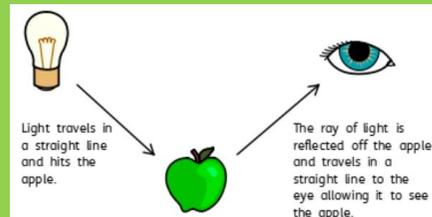
**Summer Term 2**

### I Need to Know...

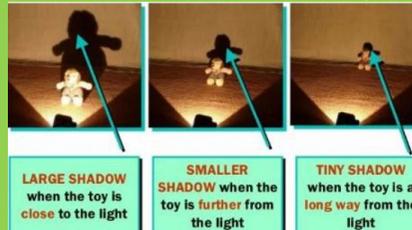
Recognise that light appears to travel in straight lines.

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.

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.



### Glossary

**dark** – the absence of light

**transparent** – Describes objects that let light travel through them easily, meaning you can see through the object.

**translucent** – Describes objects that things let some light through, but scatters the light so we can't see through them properly

**opaque** – Describes objects that do not let any light pass through them.

**shadow** – An area of darkness where light has been blocked.

**incident ray** – A ray of light that hits a surface.

**reflected ray** - A ray of light that has bounced back after hitting a surface.

**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.

### Let's Explore

Explain why objects look bent in water.

Explore different contexts in which light travels including rainbows, colours on soap bubbles and coloured filters.

Create shadow puppets to show how light travels and to demonstrate that a shadow has the same shape as the object that casts them.

### With these skills you could be a...

Laser Physicist – laser physicists look at the theory and application of lasers and optic light. They are concerned with the construction and applications of lasers, their design, and the physics involved in their future development.