

Year 3

Unit: Light

Prior learning

EYFS – Talk about the differences in materials and changes they notice.
EYFS – Describe what they see, hear, and feel whilst outside.
Year 1 – Identify, name, draw, and label the basic parts of the human body and say which part of the body is associated with each sense.
Year 1 – Describe the simple properties of a variety of everyday materials.

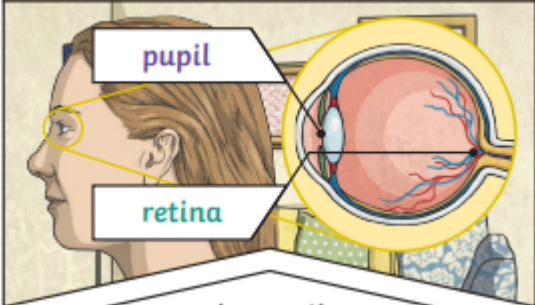
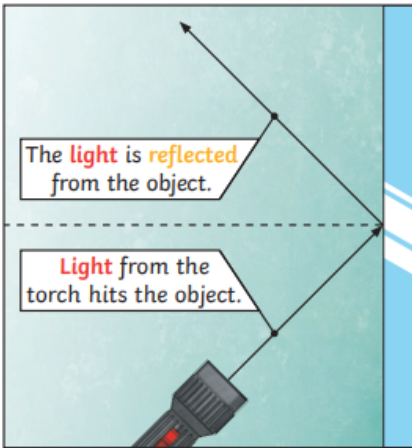
Later learning (not in Year 3)

Year 6 – Recognise that light appears to travel in straight lines.
Year 6 – Objects are seen because they give out or reflect light into our eyes.
Year 6 – Explain that we see things because light travels from a source to our eyes or from a source to an object and then to our eyes.

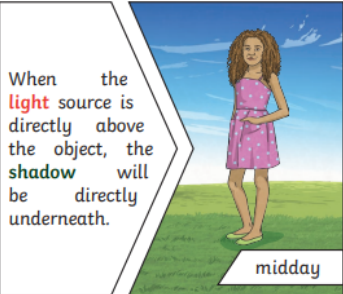
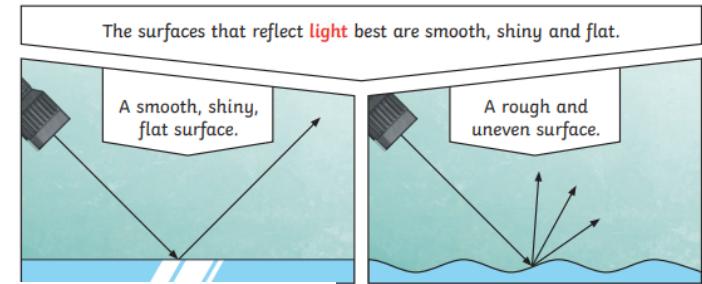
- ### Key Questions:
- How do mirrors work?
 - What does dark mean?
 - When light bounces off a surface, it is...
 - Name three sources of light.
 - Shadows are formed when...
 - How does the size of a shadow change?

Intent:
To recognise that we need light in order to see things, and that dark is the absence of light.
Recognise that light from the sun can be dangerous.
Recognise that shadows are formed when the light from a source is blocked by an opaque object.

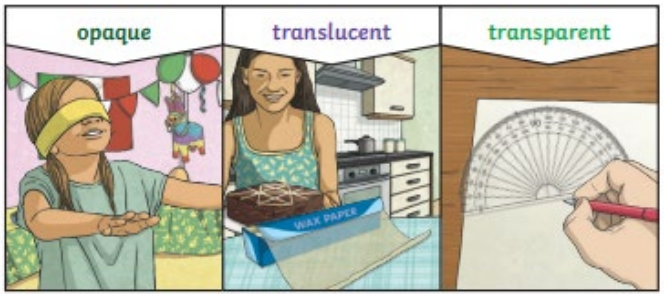
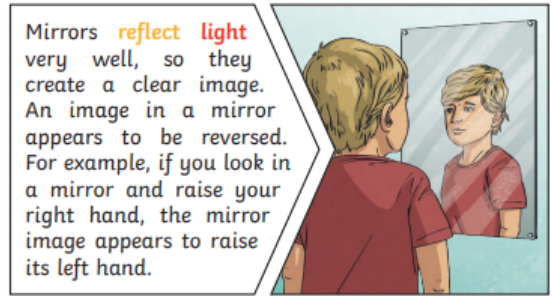
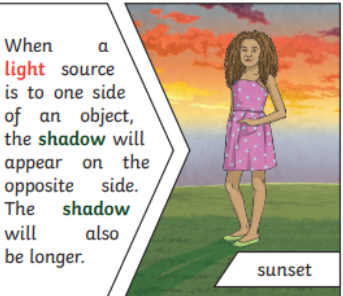
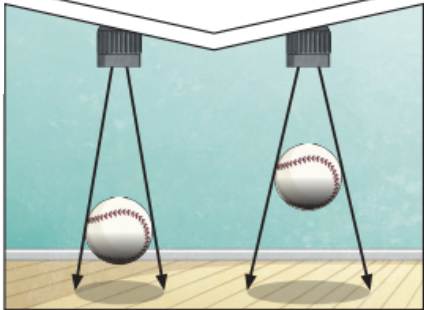
We need **light** to be able to see things. **Light** travels in a straight line. When **light** hits an object, it is **reflected** (bounces off). If the **reflected light** hits our eyes, we can see the object. Some surfaces and materials **reflect light** well. Other materials do not **reflect light** well. **Reflective** surfaces and materials can be very useful...



The **pupils** control the amount of **light** entering the eyes. If too much **light** enters, then it can damage the **retina**. To help protect the eyes, you can wear a hat with a wide brim and sunglasses with a UV rating.



A **shadow** is caused when **light** is blocked by an **opaque** object. A **shadow** is larger when an object is closer to the **light** source. This is because it blocks more of the **light**.



Vocabulary

Angle	The direction from which you look at something.
Bright	A colour or light that is strong and noticeable and not dark.
Chemical reactions	A process that involves changes in the structure of something.
Dark	The absence of light.
Dim	A light that is not bright.
Electricity	A form of energy that can be carried by wires and is used for heating, lighting, and to provide power for machines.
Emits	To produce something.
Light	A brightness that lets you see things.
Mirror	A flat piece of glass which reflects light so that when you look at it you can see yourself reflected in it.
Opaque	You cannot see through the substance or object.
Product	Something that is produced.
Reflects	Sent back from the surface and does not pass through it.
Shadows	A dark shape on a surface that is made when something stands between a light and the surface.
Source	Where something comes from.
Sunglasses	Glasses with dark lenses which you wear to protect your eyes from bright sunlight.
Surface	The flat top part of something or the outside of it.
Torches	A small electric light which is powered by batteries and which you can carry.
Translucent	Some light can pass through it.
Transparent	You can see through it.