



## Where does light come from?

### Background Information

Have you ever wondered what light actually is? Where light comes from? Light is a type of energy that makes it possible for us to see. This light is emitted from a 'light source' – there are many light sources, such as the sun, the stars, lamps and torches. Some of these are natural light sources, whereas others emit artificial light. Amazingly, some animals, such as fireflies and glow-worms, are light sources. Isn't that interesting!

Sometimes, light can be reflected. When light from a surface is reflected by a surface, it changes direction. Surfaces that are good at reflecting light are usually shiny, such as mirrors and some metals.

### In this unit the children will:

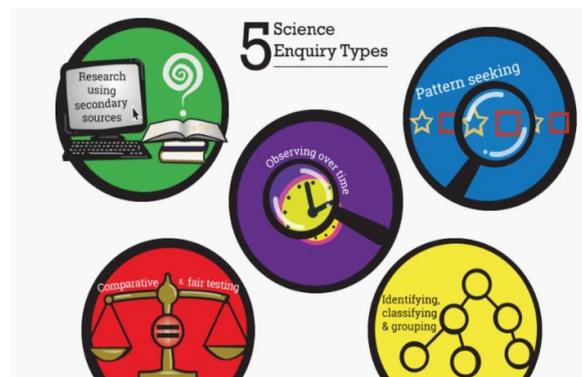
- investigate the need for light to see things.
- learn about different light sources.
- discuss whether different light sources are natural or artificial.
- learn what 'reflection' means and which materials are reflective.
- investigate how shadows are formed.
- Discuss how light from the sun can be dangerous and how we can protect ourselves and stay safe.



### Scientific Skills and Concepts

- To ask questions and set up enquiries.
- To answer these, making observations.
- Take measurements with a range of equipment.
- Record, present and analyse data.
- Use diagrams, tables and graphs.

### Enquiry types





### Key facts

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...

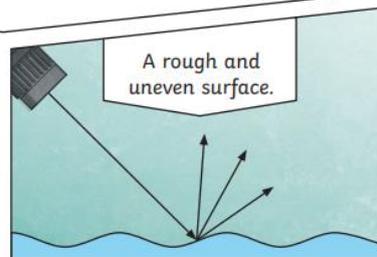
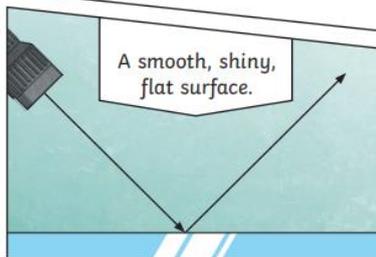


The **light** is **reflected** from the object.

**Light** from the torch hits the object.

### Key Facts

The surfaces that reflect **light** best are smooth, shiny and flat.



### Key Vocabulary

- **Bright:** Something could be described as 'bright' if an object is bright it gives out or reflects much light.
- **Dark (everyday):** Very little amount of light.
- **Dark (scientific):** 'Dark' is the absence of light.
- **Dull:** If an object is dull, it is not shiny or bright.
- **Light:** Light is the form of energy that makes it possible for eyes to see.
- **Light source:** A light source emits beams of light and allows us to see objects.
- **Material:** Anything used for building or making something else.
- **Opaque:** Opaque objects allow no light to pass through.
- **Reflect:** When light from an object is reflected, it changes direction.
- **Shadow:** A shadow is formed when something blocks light travelling from a source.
- **Shiny:** Reflecting or glowing with light.
- **Surface:** This is the outside limit or top layer of something.
- **Translucent:** Translucent objects allow some light to pass through, but not clearly.
- **Transparent:** Transparent objects allow light to pass through them.