

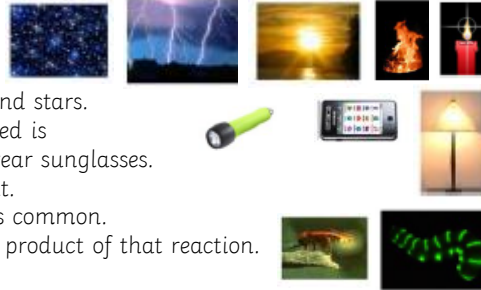


Key Concepts

Key Vocabulary

What is a light source?

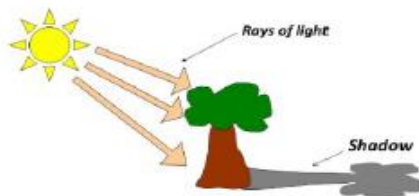
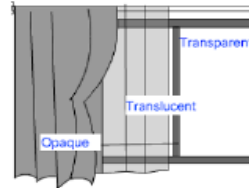
- A light source is something that emits light by burning, electricity or chemical reactions.
- Burning light sources include the Sun, flames from a fire and stars.
- We must never look directly at the Sun as the light produced is very bright and can be harmful to our eyes. This is why we wear sunglasses.
- Electric lights include lamps, car headlights and street light.
- Lights that are caused by chemical reactions are much less common.
- This happens when different chemicals react and light is a product of that reaction.
- Examples can include glow sticks and fire flies.

What are not sources of light?

- The Moon is not a source of light even though we can see it in the dark.
- This is because the Sun's light reflects on the surface of the Moon making it appear as though the Moon emits light.
- Shiny things are not light sources - they appear to be sources of light as they are bright.

How are shadows formed?

- When light is blocked by an opaque object, a dark shadow is formed. An opaque material blocks light so we can't see through it and shine a light through it.
- When light is shone onto a transparent object, the light travels through it, we can see through it and it makes a very faint shadow.
- When light is shone onto a translucent object, some of the light travels through it, we can see bright light sources through it and it makes a fairly dark shadow.



chemical reaction

A process that involves changes in the structure of something

dark

The absence of light

dim

Light that is not bright

electricity

A form of energy that can be carried by wires and is used for heating and lighting, and to provide power for machines.

emits

To emit a sound or light means to produce it

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

If an object is opaque, you cannot see through it.

product

Something that is produced

reflects

Sent back from the surface and 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

torches

A small electric light which is powered by batteries and which you can carry

translucent

If a material is translucent, some light can pass through it.

transparent

If an object is transparent you can see through it.

Working Scientifically Skills



Asking relevant questions.



Explaining results – drawing conclusions and using results.



Recognising when to use other sources of information to find answers.



Setting up enquiries and choosing equipment.

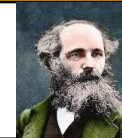


Setting up fair tests (with help)



Choosing how to record information – tables, tally charts, Venn and Carroll diagrams and bar charts.

Famous Scientists



James Clerk Maxwell, (1831- 1879) was a Scottish physicist best known for his formulation of electromagnetic theory.