

## Year 3 Science: Light

### What should I know already?

- Some sources of light
- Where does light come from?

### **Working scientifically**

During years 3 and 4, pupils should be taught to use the following practical scientific methods, processes and skills through the teaching of the programme of study content:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers
- gathering, recording, classifying and presenting data in a variety of ways to help in answering questions
- recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables
- reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions
- using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas and processes
- using straightforward scientific evidence to answer questions or to support their findings.

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### Key Knowledge

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.

### **What will we be learning?**

- Recognising that we need light things and dark is an absence of light.
- Notice that light is reflected from surfaces
- Recognise light from the sun can be dangerous and how we use protection.
- How shadows are formed when light sources are blocked by a solid object.
- Exploring patterns in the way that the size of shadows change.

### Vocabulary

Light	We can see objects because our eyes can sense light.
Dark	Darkness is the absence of light.
Light source	Some objects emit their own light and are sources of light. the sun   lightbulbs   candles 
Transparent	A material that is completely see through so all the light can pass through.
translucent	A material that lets some light through but not all of it.
opaque	A material that light cannot pass through. You cannot see through it.
shadow	These are formed when an object blocks light.
reflect	When light bounces off a surface.
mirror	A sheet of glass or metal that reflects light.

