

## Year 3: Light Autumn 2 Year A

**What should I already know?** I know that some things produce light, for example, candles, fire and lamps.

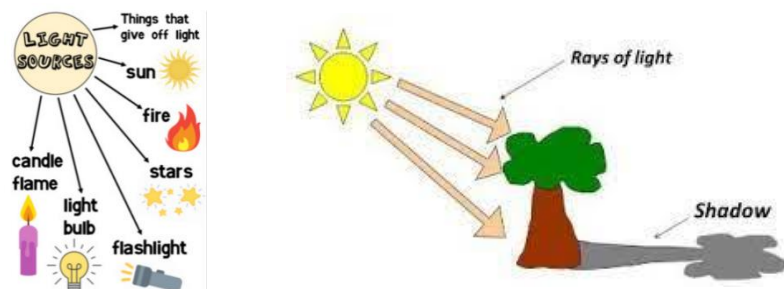
### Key Vocabulary

Light	A type of energy that can be detected by the human eye.
Light source	An object that produces and gives out its own light.
Light rays	The straight lines of light that light travels in from the sun.
Bright	Filled with, reflecting, or emitting much light
Dark	The absence of light
Absence	Something that is expected is not there
Mirror	A flat piece of glass which reflects light, so that when you look at it you can see yourself reflected in it.
Reflect	When light from an object is reflected by a surface, it changes direction and doesn't pass through it.
Reflective	Something that reflects light
Translucent	Some light passes through it, but the light is scattered, so you can't see clearly through it.
Transparent	Light completely passes through and you can clearly through it.
Opaque	Cannot be seen through and does not allow light to pass through it.
Shadow	Formed when light is blocked by an opaque object
Emits	To emit light means to produce it

### I am learning to...

- Explain that we need light to see things, and that dark is the absence of light
- Investigate reflection, identify reflective materials and select the most reflective material for a purpose
- why mirrors are good reflectors, use mirrors to reflect light onto different objects and explain how mirrors work when carrying out different tasks
- Recognise the benefits and dangers of the sun and describe ways to protect our eyes from the sun
- Explain how light travels, sort different materials according to whether they are opaque, transparent or translucent
- Investigate shadows: how they are formed and how they change shape and size

### Scientific diagrams



### Key misconceptions

The moon is a source of light. Children learn that the moon is not a source of light and that the moon reflects the sun's light and appears lit up.

### Key skills - working scientifically

Asking questions, designing a fair test, investigating and answering questions, observing, reporting and drawing conclusions.

### Key scientists

Percy Shaw (1890 - 1976) was an inventor who invented the Cat's Eye, a device that lights the way along roads in the dark by reflecting car headlights.

### What will I be learning next?

Children will explore more about the way that light behaves, including light sources, reflection and shadows talking about what happens and making predictions. They will extend their experience of light by looking at a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water and coloured filters.