



Light

Science
Year 3
Spring Term

Overview

During this topic, we will learn about different sources of light, and that we need light to see. We will be investigating reflective materials and reflective surfaces. We will be testing which objects are opaque to design the most effective curtains, and will find out how shadows change when the distance between the object and light source changes.



Knowledge & Understanding

In this unit, the pupils will:

- recognise that they need light in order to see things and that dark is the absence of light
- notice that light is reflected from surfaces
- recognise that light from the sun can be dangerous and that there are ways to protect their eyes
- recognise that shadows are formed when the light from a light source is blocked by an opaque object
- find patterns in the way that the size of shadows change.

Enquiry Skills & Concepts

In this unit, the pupils will be:

- asking relevant questions and using different types of scientific enquiries to answer them
- setting up simple practical enquiries, comparative and fair tests
- making observations and taking accurate measurements
- 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
- using results to draw simple conclusions, suggest improvements and raise further questions
- identifying differences, similarities or changes related to simple scientific ideas
- using straightforward scientific evidence to answer questions or to support their findings.

Topic Vocabulary

light source – something that gives off light

opaque – allows no light to pass through so the object behind can't be seen

reflect – to send back light without absorbing it.

reflective – something capable of reflecting light

shadow – a dark shape caused by light being blocked by an opaque object

translucent – allows some light to pass through so the object behind can be partially seen

transparent – allows light to pass through so the object behind can be seen

Working Scientifically

classify – to sort things into different groups

conclusion – an opinion reached after careful thinking and observation

evidence – findings and results that answer a question

gather – to collect from different sources and bring together information

identify – to recognise what something is

investigation – to find out the answer to a scientific question using tests and observations

observation – to look closely

prediction – to use prior knowledge to state the outcome

Home – School link project

During this topic pupils can choose to:

- Use objects around the house to cast different shadows
- Draw around different shadows to see how they change at different times in the day.