

Y3/4 Year B Autumn Term

Topic: Let there be Light

Subject: Science – Light and Shadow

National Curriculum Objectives

Y3/4

- 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 straightforward scientific evidence to answer questions or to support their findings

Y3

- 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 a solid object
- find patterns in the way that the size of shadows change

Key Knowledge and Vocabulary

Know that we need **light** in order to see things.

Know that **dark** is the absence of light. Identify a variety of **light sources**.

Know and define the difference between **night** and **day**.

Know why the Sun **rises** and **sets** each day.

Know that we need light to see and that **darkness** is the absence of light.

Know that **shadows** are formed when light is blocked.

Know the difference between objects that are **transparent, translucent** and **opaque**.

Know how to create **shadows** using torches and express their findings.

Know that **shadows** are formed when the light from a **light source** is blocked by a **solid** object.

Know how to use simple equipment to explore how **shadows** behave.

Know and explain why shadows created by the sun change position during the course of a day.

Identify patterns in the way the size of **shadows** change.

Know that light travels in a straight line. Know that we see when light is **reflected** from a surface.

Links to our school values:

Thankfulness

Texts to support learning:

