



# Year 3 – Light (Physics)

## Working Scientifically Focus: Setting up tests and enquiries



Prior learning: Year 1 and 2.

### Nursery Light

- Explore how things work.
- Talk about the differences in materials and changes they notice.

### Reception Light

- Describe what they see, hear and feel whilst outside.

### Year 1

#### Animals including humans

- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.

### Materials

- Describe the simple physical properties of a variety of everyday materials.

In this topic, we are learning to:

- 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.
- Understand why the size of shadows change.



Key Vocabulary:

<b>light</b>	A form of electromagnetic radiation (energy).
<b>energy</b>	The capacity for doing work.
<b>light source</b>	Something that emits light which is either natural or made by humans.
<b>natural</b>	Something not made or caused by humans.
<b>reflection</b>	Light or other invisible waves bounce off a surface instead of being absorbed by it.
<b>opaque</b>	Light is either absorbed or reflected so you cannot see through it.
<b>transparent</b>	Allows light to pass through it as it does not absorb or reflect light significantly.
<b>translucent</b>	Not completely clear, letting some light through while absorbing and scattering the rest.
<b>sunlight</b>	Sunlight is the light energy given out by the Sun.
<b>dangerous</b>	Something that poses a significant risk or hazard to human health, safety, or the environment.
<b>ultraviolet radiation</b>	A type of electromagnetic radiation (light) invisible to the eye without technology.



### Questions you will know the answers to...

What is light and do we need it to see?  
How are shadows made?  
Does the position of the light source change the shadow?

Are all materials reflective?  
Do different materials create different shadows?  
Is sunlight dangerous?



### Working Scientifically Assessment Focus:

#### **SETTING UP TESTS AND ENQUIRIES.**

- Set up simple practical enquiries, comparative and fair tests.
- Select equipment from a range of practical resources to gather evidence to answer questions generated by themselves or the teacher.
- Follow their plan to carry out an enquiry: observations and tests to classify; comparative and simple fair tests; observations over time; and pattern seeking.