

Our School Values- Science	
Love	We show love by fostering a joy of discovery.
Courage	We show courage by being brave, challenging thinking, asking questions and investigating new ideas. We show courage knowing that we won't always find the answer.
Unity	We show unity by working collaboratively to discover more.
Inspiration	We show inspiration by not giving up and thinking creatively to seek answers.



Year 6
Science
Light

NC Objectives

- recognise that light appears to travel in straight lines
- use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye
- explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes
- use the idea that light travels in straight lines to explain why shadows have the same shape as

Knowledge I already know

Year 3- We see objects because our eyes can sense light. Dark is the absence of light. We cannot see anything in complete darkness. Some objects, for example the sun, light bulbs and candles are sources of light. Objects are easier to see if there is more light. Some surfaces reflect light. Objects are easier to see when there is less light if they are reflective. The light from the sun can damage our eyes and therefore we should not look directly at the Sun and can protect our eyes by wearing sunglasses or sunhats in bright light.

Shadows are formed on a surface when an opaque or translucent object is between a light source and the surface and blocks some of the light. The size of the shadow depends on the position of the source, object and surface.

Knowledge I will learn

I know that a light source emits light.

I know that light only travels in straight lines.

I know that when white light is shone through a prism, the colours of the visible spectrum separate and produce a rainbow (colours of the visible spectrum).

I know that Isaac Newton discovered that light was made of colours.

I know that we see an object by light reflecting off a surface and entering our eyes.
























































I know that shiny or smooth surfaces reflect light in the same direction.

I know that rough surfaces reflect light in a scattered direction.

I know that shadows are formed when the light from a light source is blocked by an opaque object.

Key Vocabulary

Word	Definition
Impurity	a substance that is present in small amounts in another substance
Emit	To send something out
Absorb	take in a liquid, gas or other substance from the surface or space around
Constituent	one of the parts of something that combine to form the whole
Filter	Remove unwanted materials
Artificial	made or produced to copy something natural; not real
Refraction	light changing direction when it goes through water at an angle
Incidence	the way in which light meets a surface
Spectrum	a band of coloured lights into which light may be separated
Prism	a clear object which separates light that passes through it
Lux	a measure of the amount of light produced
Pigment	substance that exists and gives skin, leaves etc. a particular colour

LI: How does light travel?	LI: How does light help us to see objects?	LI: Which surfaces make the best reflectors?	LI: Which surfaces make the best reflectors?	LI: Which surfaces make the best reflectors?	LI: Why do shadows have the same shape as the object that cast them?																								
Observations and diagrams	Measure angles of rays and record results.	Plan investigation	Conduct investigation	Write conclusions and evaluate investigation.	Sundials predictions.																								
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