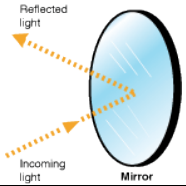
UKS2 Light

Key vocabulary	
Light rays	A line emitted from a source.
Haze	When particles obscure light.
Distort	To change twist of exaggerate something to make it appear different.
Primary colour	A group of colours that mix to make other colours.
Secondary colour	A group of colours that are created when primary colours are mixed.
Variance	How much something differs from another.
Obstruct	To get in the way of something.
Alteration	To change modify or adjust.
Refraction	Light waves changing direction.
Fluorescent	Light given off by certain substances when it absorbs light or other electromagnetic radiation.

Suggested Progression	
1	*Examine brightness over the day in different locations*
2	*Explore the reflectiveness of materials*
3	*Understand that light travels in straight lines Predict light direction using mirrors*
4	*Investigate shadow length and understand how shadow size can be altered*
5	*Explore the shapes of shadows of different objects*
6	*Experiment with light refraction*

Key Knowledge	
Preceding	• Recognise that they need light in order to see things and that dark is the absence of light. (Y3) • Notice that light is reflected from surfaces. (Y3) • Recognise that light form the sun can be dangerous and that there are ways to protect their eyes. (Y3) • Recognise that shadows are formed when the light from a light source is blocked by a solid object. (Y3) • Find patterns in the ways that the size of shadows change. (Y3)
Current	• 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 the objects that cast them.

Scientific Enquiry	
Comparative Tests	Which material is most reflective? 
Pattern Seeking	Is there a pattern to how bright it is in school over the day? Is it the same in every classroom? 
Fair Tests	How does the angle that a light ray hits a plane mirror affect the angle at which it reflects off the surface? 
Identifying and classifying	Can you identify all the colours of light that make white light when mixed together? What colours do you get if you mix different colours of light together?