

Lower Key Stage Two - Light

NC objectives	Key knowledge and vocabulary
<ul style="list-style-type: none"> • Sc3/4.1a recognise that they need light in order to see things and that dark is the absence of light • Sc3/4.1b notice that light is reflected from surfaces • Sc3/4.1c recognise that light from the Sun can be dangerous and that there are ways to protect their eyes • Sc3/4.1d recognise that shadows are formed when the light from a light source is blocked by a solid object • Sc3/4.1e find patterns in the way that the size of shadows change. 	<p><u>Big idea(s):</u> P1, P3</p> <p><u>Revision</u> absorption, energy, property, reflection</p> <p><u>New learning and vocabulary</u> wave, mirror, incident ray, image, beam, photons, solid, opaque, transparent, object, source, data logger</p> <p>Know that light is a form of energy Know that energy comes in different forms and can be neither created nor destroyed, only changed from one form to another Know that we need light to see things and that darkness is the absence of light Know that light travels in straight lines Know that light is reflected when it travels from a light source and then ‘bounces’ off an object Know that everything that we can see is either a light source or something that is reflecting light from a light source into our eyes Know that the Sun is a light source, but that the Moon is not and is merely reflecting light from the Sun Know that many light sources give off light and heat Know that the Sun gives off light and heat when hydrogen turns into helium Know that filaments in traditional bulbs heat up until they glow, giving off light and heat Know that fluorescent bulbs glow when electricity adds energy to a gas within the bulb Know that sunglasses can protect eyes from sunlight but looking at the Sun directly – even with sunglasses – can damage the eyes Know that opaque objects block light creating shadows and that light passes through transparent objects Know that opacity/transparency and reflectiveness are properties of a material Know that as objects move towards a light source, the size of the shadow increases Know how to show the changing of shadow size by drawing a diagram with straight lines representing light Know that a data logger can keep track of light levels and that this can be plotted on a graph to show how this changes over the course of a day</p> <p>(NB: the Sun and the Moon are capitalized when being discussed in an astronomical context.)</p>