

Year 3 Progression map – Light		
National curriculum objectives:	Scope:	Coherence:
<ul style="list-style-type: none"> 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 find patterns in the way that the size of shadows change <p>Misconceptions:</p> <ul style="list-style-type: none"> Our eyes are light sources Shiny objects (good reflectors) are sources of light That we can see in the dark Children may get confused by the difference between shadows and reflections That light can bend around objects 	<p>HEP science lesson titles</p> <ol style="list-style-type: none"> Light source or light reflector? Transparent, translucent or opaque? What makes a good reflector of light? What is a shadow? How can we protect our eyes from the Sun? How do telescopes work? <p>Working scientifically skills used:</p> <ul style="list-style-type: none"> Observe how light travels when it meets different objects Classify objects as good or poor reflectors of light Comparative testing Investigate shadow length Calculate averages Construct a bar chart Observe the sun safely Construct a telescope <p>Key scientists and inventors: Ancient Egyptian astronomers</p>	<p>English: Reporting on findings, including oral and written explanations, text comprehension</p> <p>Key vocabulary: absence, bioluminescence, Celsius, mirror, reflect, image, opaque, translucent, transparent, aluminium, dull, scattered, blocked, shadow, position, astronomer, iris, pupil, project, astronaut, binoculars, curved, lens, optician, telescope</p> <p>Maths: Taking accurate measurements using standard units, gathering data, charts, ranking</p> <p>History: Valley of the Kings</p> <p>DT: Design and make</p>
Builds on:	Future learning:	Further reading:
<p>Year 2: Plants need light to survive Some misconceptions may arise here as no formal learning about light</p>	<p>Year 4 – Sound: Differences between light and sound energy Year 4 – Electricity: How lamps light up in a circuit Year 5 – Earth and Space</p>	<p><u>Light (Science in a Flash)</u> <u>Light: Shadows, Mirrors, and Rainbows (Amazing Science (Picture Window))</u></p>

Year 6 – Light:

- 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