



# Year 6 – Spring 1 – Science – Pupil Knowledge Organiser



What do I already know?	What am I learning now?	
<ul style="list-style-type: none"> <li>• Dark is the absence of light.</li> <li>• We see sources of light when their light travels to our eyes.</li> <li>• Light travels in straight lines until it encounters a surface.</li> <li>• We see non-luminous objects when light reflects off them and into our eyes.</li> <li>• A shadow will always form on the side behind the object.</li> </ul>	<ol style="list-style-type: none"> <li>1. How does light travel and how does this help us see?</li> <li>2. What are angles of incidence and reflection?</li> <li>3. How do we perceive colour when we see objects?</li> <li>4. Why do shadows have the same shape as the objects that cast them?</li> <li>5. How do we identify and create a hypothesis and prediction? (WS)</li> <li>6. How do we design an experiment? (WS)</li> </ol>	
Key Knowledge: Light (Part 1) Working Scientifically Focus	Key Skills: Working Scientifically	Key Vocabulary
<div> <p>When white light strikes an object, some wavelengths are absorbed, and others are reflected.</p> </div> <div> <p>Refraction happens when light bends as it passes through different substances.</p> </div> <div> <p>White light is made up of waves of different lengths.</p> <p>The wavelengths that are reflected determine the colour of the object we see.</p> </div> <div> <p>According to the law of reflection, the angle of reflection is always equal to the angle of incidence.</p> </div> <div> <p>When light encounters opaque objects, it cannot pass through, forming a shadow.</p> </div> <div> <p>The shape of the shadow matches the object that casts it, because the light rays around it are not being blocked.</p> </div>	<div> <p>Ask Questions</p> </div> <div> <p>Enquiry</p> </div> <div> <p>Observe</p> </div> <div> <p>Record/ Present</p> </div> <div> <p>Conclusions</p> </div> <div> <p>Evaluation</p> </div> <div> <p>Communicate</p> </div>	<p>light</p> <p>The energy that is transferred to our eyes making it possible for us to see.</p> <p>reflection</p> <p>Light bouncing off a surface.</p> <p>refraction</p> <p>Light bending when passing through different media/materials.</p> <p>angle of incidence</p> <p>The angle at which light hits a surface.</p> <p>shadow</p> <p>Dark area formed when light is blocked by an opaque object.</p> <p>light source</p> <p>Origin of light, such as a lamp or the sun.</p> <p>wavelength</p> <p>Distance between two consecutive wave peaks.</p> <p>visible spectrum</p> <p>Range of colours that the human eye can perceive.</p> <p>hypothesis</p> <p>A possible answer to a scientific question.</p> <p>prediction</p> <p>A statement of what you think will happen.</p> <p>variable</p> <p>Something that may affect the results of an experiment.</p> <p>fair test</p> <p>Only changing one variable at a time.</p>