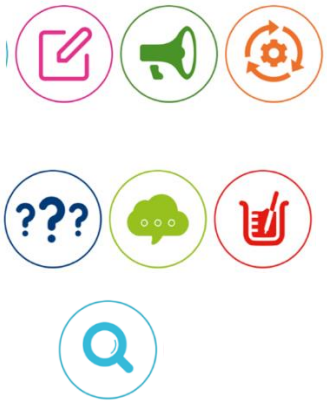
Crockerne Church of England Primary

Year 6 – Light

Key Concepts	Learning possibilities	Scientific Enquiry	What you should know
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 of from light sources to objects and then our eyes.** **Using the idea that light travels in straight lines, explain why shadows have the same shape as the object that cast them.** **Explain that light can be broken into colours and different colours can be combined to appear as a new colour.**	• Explore different ways to demonstrate that light travels in straight lines e.g. shining a torch down a bent and straight hose pipe, shining a torch through different shaped holes in card. • Explore the uses of the behaviour of light, reflection and shadows, such as in periscope design, rear view mirrors and shadow puppets • Can describe and demonstrate how shadows are formed by blocking light • Can describe, demonstrate and make predictions about patterns in how shadows vary		Recognise that they need light in order to see things and that dark is the absence of light. (Y3 - Light) • Notice that light is reflected from surfaces. (Y3 - Light) • Recognise that light from the sun can be dangerous & there are ways to protect eyes. (Y3 - Light) • Recognise shadows are formed when the light from a light source is blocked by an opaque object. (Y3 - Light) • Find patterns in the way that the size of shadows change. (Y3 - Light) • Compare & group everyday materials on properties, including hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials)

Key Vocabulary

Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous straight lines, light rays

Cultural Capital

In 1854, Hippolyte Marié-Davy invented the first naval periscope, consisting of a vertical tube with two small mirrors fixed at each end at 45°. Simon Lake used periscopes in his submarines in 1902. Sir Howard Grubb perfected the device in World War I

Johannes Hevelius described an early periscope (which he called a "polemoscope") with lenses in 1647 in his work [Selenography, or an account of the Moon]. Hevelius saw military applications for his invention.