



Progression Document – Light

(Objectives in red are from linked curriculum areas)



F1	• Explore light sources • Shine light on or through different materials
F2	• Explore shadows • Explore rainbows
Year 1	• Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)
Year 2	• Describe the simple physical properties of a variety of everyday materials. (Y2 - Materials)
Year 3	
Year 4	• 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
Year 5	• Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (Y5 - Properties and changes of materials) • 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.
Year 6	

Key stage 3	• The similarities and differences between light waves and waves in matter. • Light waves travelling through a vacuum; speed of light. • The transmission of light through materials: absorption, diffuse scattering and specular reflection at a surface. • Use of ray model to explain imaging in mirrors, the pinhole camera, the refraction of light and action of convex lens in focusing (qualitative); the human eye. • Light transferring energy from source to absorber leading to chemical and electrical effects; photo-sensitive material in the retina and in cameras. • Colours and the different frequencies of light, white light and prisms (qualitative only); differential colour effects in absorption and diffuse reflection
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