



WENSLEY FOLD CE PRIMARY ACADEMY SCIENCE SCHEME OF WORK



PROGRESSION THROUGH TOPICS

PHYSICS - LIGHT

Year 3	Year 6
- I can describe what dark is (the absence of light). - I can explain that light is needed in order to see. - I can explain that light is reflected from a surface. - I can explain and demonstrate how a shadow is formed. - I can explore shadow size and explain. - I can explain the danger of direct sunlight and describe how to keep protected.	- I can explain how light travels. - I can explain and demonstrate how we see objects. - I can explain why shadows have the same shape as the object that casts them. - I can explain how simple optical instruments work, e.g. periscope, telescope, binoculars, mirror, magnifying glass etc. 

KS3

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.