Science Overview – Light

Year 6

Autumn 2

Key Question: How do the decisions people make shape a society?

National Curriculum

- 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.

SUBSTANTIVE KNOWLEDGE

- Know that light travels in straight lines.
- Know how light reaches the eyes.
- Know what happens to light when it moves from air to water- refraction.
- Know the laws of reflection and incidence.
- Know the work of Isaac Newton- prism and spectrum.
- Know that shadows are the same shape as the object that casts it.
- Know that shadows can be elongated or shortened depending on the angle of the light source.

Key words:	**refraction** **spectrum** **reflection**
Key Vocabulary	**light, light source, reflection**, pupil, incident ray, reflected ray, the law of reflection, refraction, visible spectrum, prism, **shadow, transparent, translucent, opaque** **(Words in bold taught in Y3)**
Working Scientifically	• Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary
Enquiry type to cover and enquiry question	**Comparative test (enquiry type)** Which material is the most reflective?
Learning Milestones /Assessment	I can… • name some light sources • explain how light reaches the eye. • describe the law of reflection • describe how shadows change with changes to the position and angle of a light source.