SFET South Farnham Educational Trust	Science Subject Knowledge Organiser		
	Autumn Term	**Year 6**	**Strands covered: Light**

What prior knowledge should students have?

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).

Key Vocabulary	Definition
Shadow	A dark area created where light from a light source is blocked by an object. The object blocking the light will be opaque or translucent.
Reflect	To throw back light from a surface
Light Ray	Each line of light travelling in a straight line from its place of origin.
Straight Lines	Light travels in straight lines
Light Source	Natural or artificial source of light

What skills will students learn? (Disciplinary Knowledge)

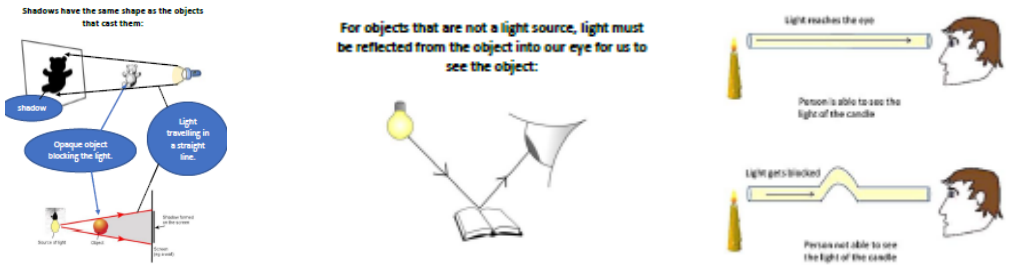
- The children select from a range of practical resources to gather evidence to answer their questions. They carry out fair tests, recognising and controlling variables. They decide what observations or measurements to make over time and for how long. They look for patterns and relationships using a suitable sample.
- The children decide how to record and present evidence. They record observations e.g. using annotated photographs, videos, labelled diagrams, observational drawings, labelled scientific diagrams or writing. They record measurements e.g. using tables, tally charts, bar charts, line graphs and scatter graphs. They record classifications e.g. using tables, Venn diagrams, Carroll diagrams and classification keys.

What key knowledge will be taught? (Substantive Knowledge)

• 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 the objects that cast them.

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