Topic Name	Light
Big Question	How far can you throw your shadow?
Scientists to use as examples	Justus Von Liebig, James Clark Maxwell, Hedy Lamarr
Key Knowledge	• 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
Key investigational skills	What might we want to know about daylight around the world? Man-made vs natural light sources, Reflectors of light Light sources Written information about light patterns around the world. Graph showing about of light about each day. Pupils might work scientifically by: looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.
Vocabulary	light, light source, Sun, sunlight, dangerous
Prior learning – what children should know	Explore how things work. (Nursery – Light) • Talk about the differences in materials and changes they notice. (Nursery – Light) • Describe what they see, hear and feel whilst outside. (Reception – Light) • 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) • Describe the simple physical properties of a variety of everyday materials. (Y1 - Materials) •
Future learning – next time they will be learning	Recognise that light appears to travel in straight lines. (Y6 - Light) • 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. (Y6 - Light)

	• 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. (Y6 - Light) • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them
Visits	Opticians
Book links	What makes a shadow – Clyde Robert-Bulla