

### **PRIOR KNOWLEDGE:** In year 3, children learned to

- 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 a solid object
- Find patterns in the way that the sizes of shadows change.

### **NATIONAL CURRICULUM:** Pupils should be taught to:

- 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

### **KEY VOCABULARY:**

**Simple comparisons:** dark, dull, bright, very bright

**Comparative vocabulary:** brighter, duller, and darker

**Superlative vocabulary:** brightest, dulllest, and darkest

Opaque, translucent, transparent

**Shadow** – block, absence of light

Reflect – bounce, mirror, reflection

See – light source

Sun – sunset, sunrise, position

## **SCIENCE: Light (Y6) Autumn 2**



### **Enquiry Questions:**

1. Where does light come from?
2. How is light reflected? (Straight line)
3. How is light refracted?
4. What colour is light?
5. Can the colour of an object change? (Filters)
6. Shadow theatre! (shadows remain the shape of the object)

### **CONTEXT:**

Children should have a basic knowledge of how shadows are formed and that light is required to see objects. Children will now learn that light travels in straight lines and bounces off objects into our eyes from a light source and that is how we see. Understand that light bouncing off of an object is why shadows have the same shape as the object which casts them.

### **STICKY 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 as the objects that cast them

### **SKILLS:**

- Fair testing
- Investigation
- Explanation
- Analysing results
- Observation