

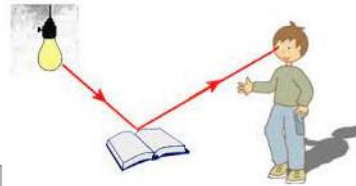


## Year 6 – Speed of Light

Prior Learning: Children know that light reflects off some surfaces and how shadows are formed. They know what opaque and translucent means.

**Concept:**

**Working scientifically:**



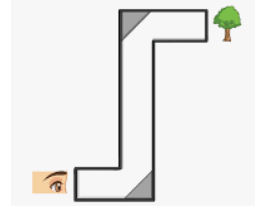
Take measurements



Present results

**4. TWAL understand how we see objects using light**

We will learn that we see an object because they give out or reflect light to our eyes. We will apply this knowledge to investigate and explain how a periscope work.



We see an object because they give out or reflect light to

**1. TWAL to recognise that light travels in straight lines**

We will investigate how light travels and look at some examples and compare this to how sound travels. We investigate how far different light sources of light travel using our measuring skills and connect this to what we know about the sun and stars.



Light travels in straight lines.



The Peace Tower in Iceland

**5. TWAL to explain how we see things**

Today we will explain how we see things. We will present our knowledge in a way that we choose, being careful to use scientific language and clear diagrams.



**2. TWAL investigate how shadows get their shapes**

Today we will use the idea that shadows travel in straight lines to explain how shadows are formed and why they have the same shape as the object that casts them. We will then investigate how shadows' shapes can change (distance, angle of light etc)



Shadows are formed when an object blocks the light's path.

**3. TWAL to investigate reflection**

We will start by experiment with how we can change the direction of a beam of light. We will learn that some materials can reflect light and observe how this works using mirrors, glass, plastic and metal. We will measure the angle of reflection and how this can be changed. We will also introduce refraction.



Some objects reflect light.

**Words we will know!**

refracts



travels



shadow



reflects

