

Year 6 - Light

People cannot see around corners. Do you agree?

Prior learning

In Year 3, you found that light is reflected from reflective surfaces and opaque and translucent objects create a shadow.

Future learning

In secondary school, you will develop your knowledge of light travelling in straight lines and explain refraction in more detail.

In this unit you will:

- 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

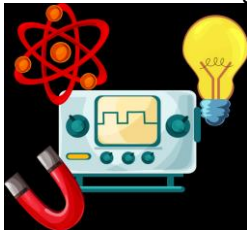
Key Scientist: Nick Holonyak



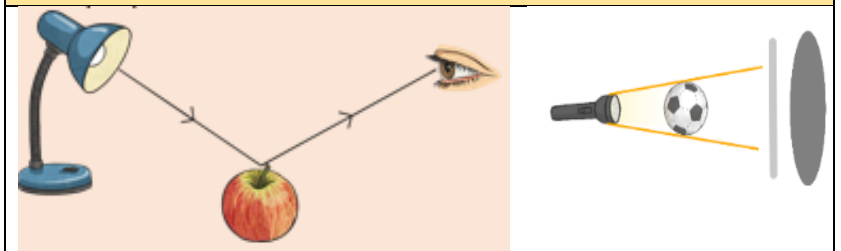
Nick Holonyak was the first person to develop the LED (light emitting diode). LEDs are used in digital clocks, brake lights on cars, electrical posters and many more items! Nick Holonyak is also responsible for creating the dimmer switch!

Science discipline: Physics

Physics is the study of the relationship of objects, forces, and energy. Physics explains gravity, and the way things move, according to Newton's Laws of Motion. It also helps us understand behaviour and movement of energy such as heat, light and electricity.



Scientific diagram



Vocabulary:

- **Reflect:** To bend or throw back waves of light, sound, or heat. A polished surface reflects light.
- **Refraction:** When light changes direction, or bends, when it moves from one material to another.
- **Distorted:** To twist out of a natural, normal, or original shape.
- **Theory of colour:** Clear light could make colours. Newton named seven distinct colours, the same ones that we see in a rainbow: red, orange, yellow, green, blue, indigo, and violet.
- **Light spectrum:** In the visible spectrum of light, the colour of the light depends on the frequency. The visible spectrum is always the same for a rainbow or the separated light from a prism.