



Science Topic: Light

Year: 3 Term: Autumn 1

## Key Knowledge/Content:

- There must be light for us to see. Without light it is dark.
- We need light to see things even shiny things.
- Transparent materials let light through them and opaque materials don't let light through.
- Beams of light bounce off some materials (reflection).
- Shiny materials reflect light beams better than non-shiny materials.
- Light comes from a source

## Scientist Focus:

### **Lewis Latimer (Inventor)**

Invented the filament in light bulbs, meaning they can be used in houses and public places.

## Links to:

### Prior learning:

To know that the Sun produces light.

### Future learning:

To experiment and manipulate shadows by changing the size or distance of an object.

## Key vocabulary with definition:

### Prior vocabulary:

- Bounce
- Straight
- Sun

### New vocabulary:

- Light source- Something where light comes from.
- Dark- Absent of light.
- Opaque- Something that light cannot pass through.
- Translucent- A surface where light can partially pass through.
- Transparent- A surface where light can pass through easily.
- Shadow- Something created by the blocking of light.
- Natural- Something created without human influence.
- Artificial- Something created with human help or electronically.
- Reflect- When light changes direction.
- Ray- A direction of light.
- Visible- Can be seen.
- Glare- To be dangerously reflected, such as from the Sun.

## By the end of this unit

**All children can:** understand that light causes us to see and **know** that darkness is caused by the absence of light.

**Most children can:** sort light sources based on whether they are "natural" or "artificial" and **identify** transparent and opaque materials.

**Some children can:** explain the dangers of too much light, such as the Sun's glare, and **investigate** what causes a shadow, changing the shape.

## Background understanding for teachers and parents:

This unit will look at light and how light helps us to see. Children will explore which materials are opaque, translucent and transparent, using this to identify materials that could be used to make sunglasses.

## Curriculum Driver (one):

Healthy Lifestyle

### Evidence outcome:

Understand the importance of protecting our eye sight, including which materials are good for creating sunglasses.