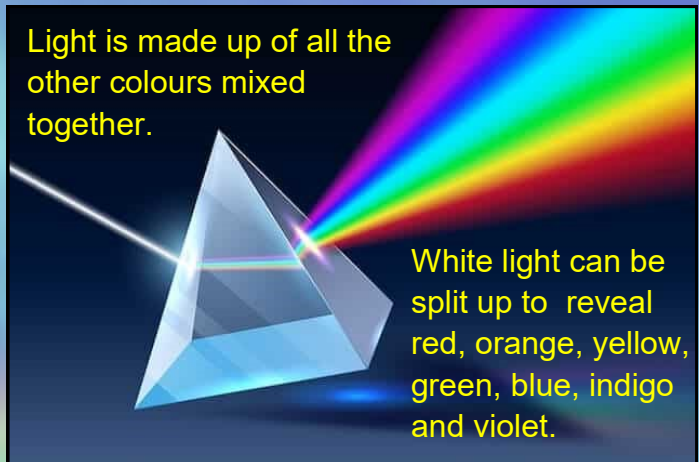
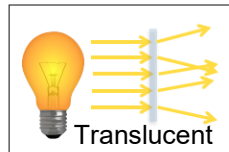
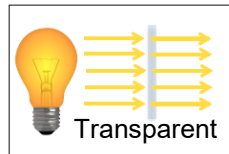
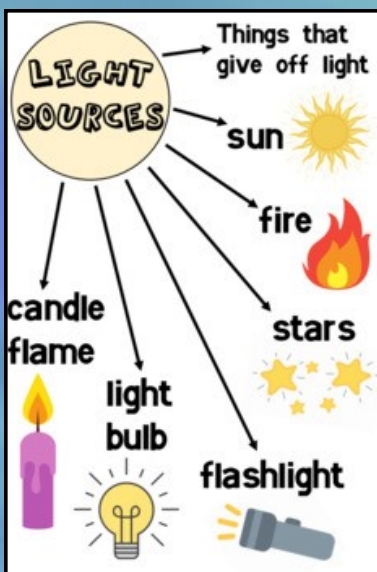


# Fitzjohn's Fact File

## Year 3—Light and Shadow



### Key Facts

Light travels in a straight line through air, but can be refracted (*bent*) in water.

You need light to be able to see. Light can be from natural or man-made sources.

Waves of light are called light rays.

The light that humans can see only takes up a very small portion of the spectrum and it is called **visible light**. Insects and some other animals can see more than we can, which means they can see different colours that we can't even imagine!

Light travels at around 300,000 km per **second**.

### Key Vocabulary

<b>Light source</b>	An object that produces its own light (sun, fire).
<b>Artificial light</b>	Light made from a man-made object (torch, lamp).
<b>Shadow</b>	A dark area or shape caused by a blockage in light.
<b>Reflection</b>	When light bounces off a surface.
<b>Transparent</b>	When light can travel through an object.
<b>Translucent</b>	When only some light travels through an object.
<b>Opaque</b>	When no light can travel through an object.

### Significant Person



Name:	Lewis H. Latimer
Year of birth:	1848
Year of death:	1928
Famous for:	Designed a hard-wearing carbon filament for light-bulbs. This invention made electrical lighting much more affordable for families as it was longer lasting. Along with Thomas Edison, he invented the lightbulb. However, Edison claimed all the credit.

### Key Skills

Working scientifically:

**Predict** what will happen when an object is moved nearer to or further from a light source.

**Find patterns** in the way that the size of shadows change, when the light source moves or the distance between the light source and the object changes.

**Investigate and measure** shadows, and find out how they are formed and what might cause the shadows to change.

**Record observations** of investigations on shadow formation in a systematic way.