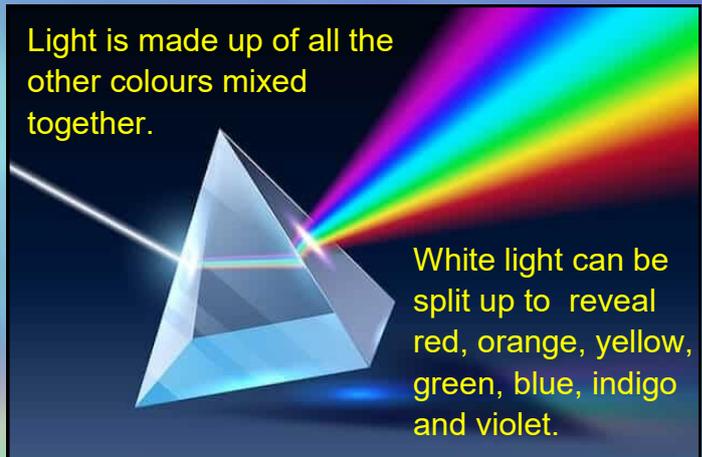
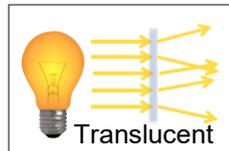
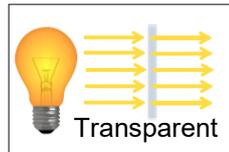
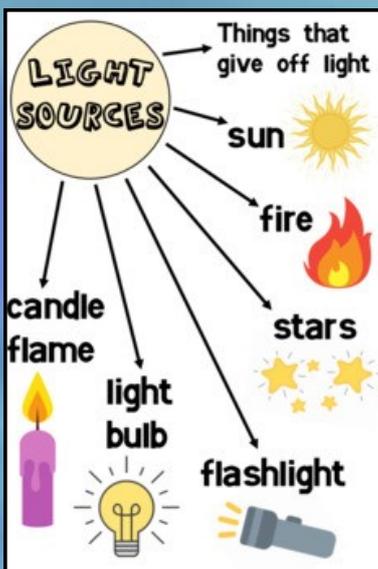


Fitzjohn's Fact File

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.

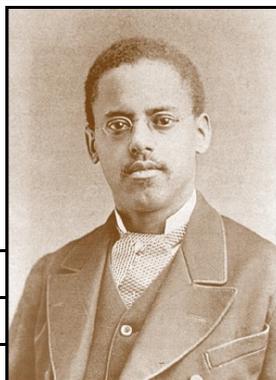
The light that humans can see only takes up a very small portion of the spectrum and it is called **visible light**. Insects and some other animals can see more than we can, which means they can see different colours that we can't even imagine!

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

Key Vocabulary

Light source	An object that produces its own light (sun, fire).
Artificial light	Light made from a man-made object (torch, lamp).
Shadow	A dark area or shape caused by a blockage in light.
Reflection	When light bounces off a surface.
Transparent	When light can travel through an object.
Translucent	When only some light travels through an object.
Opaque	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.