



## Knowledge Organiser – Light (Science Year 3)



Key Vocabulary	Definition
Light	Something that makes things visible.
Light source	An object that emits light.
Transparent	Used to describe materials that let light through so that you can see things behind it.
Reflective	Used to describe materials that reflect light.
Opaque	Used to describe materials that you can't see through.

Light is a form of energy.

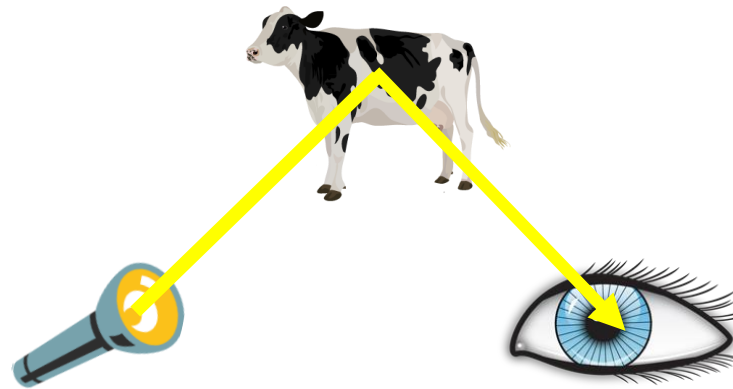
Light usually comes from hot objects, but not always.



The sun is a natural form of light.

The energy from the sun powers all life on Earth.

How do we see?



We can see objects because when light hits an object it is reflected (bounces off) and enters our eyes.

Why are the shadows different?

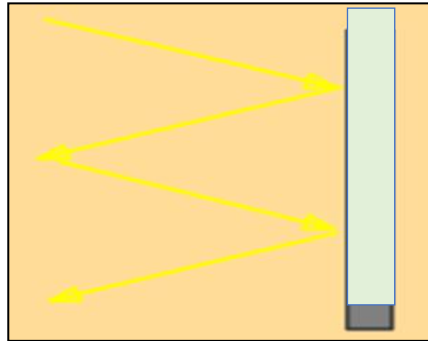
It depends on the amount of light that can travel through each material.

Reflective and opaque objects block light and will form a darker shadow.



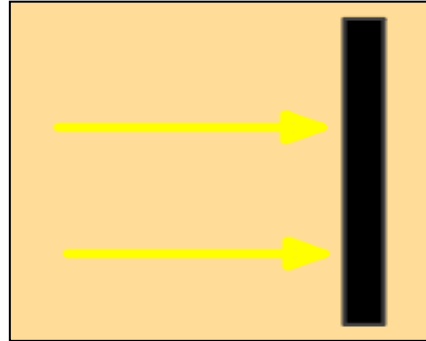
Translucent and transparent objects let light through and will form either no shadow, or lighter shadows.

Shiny and light objects reflect light.

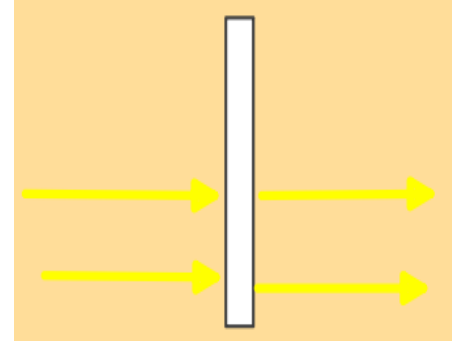


Reflection

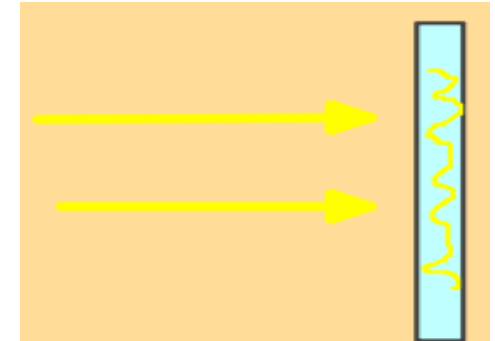
Opaque objects absorb light.



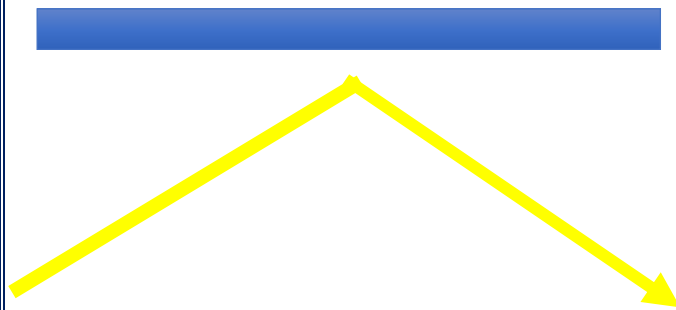
Transparent objects let most of the light through.



Translucent objects let some light through.



Refraction



Light reflects off a mirror like a ball hitting a hard surface.

When light travels through transparent materials, the light rays bend. This is called refraction.



Refraction occurs because light travels at a different speed through the water. This makes the pencil appear bent as it enters the water.

Sunlight contains ultraviolet rays. Small amounts of UV light are good for us, but large amounts are bad for our eyes and can cause skin cancer.

We can use suntan lotion and sunglasses to protect ourselves against the dangerous rays.