

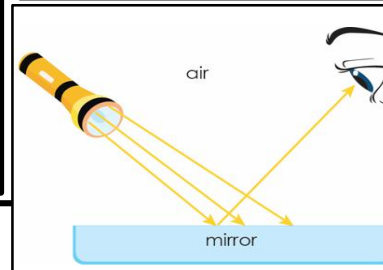
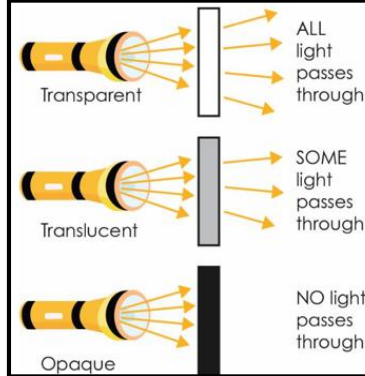
Light Knowledge Organiser

What is light?

Light sources **give off light** and **always travels in straight lines**. We see objects because **light travels into our eyes**.



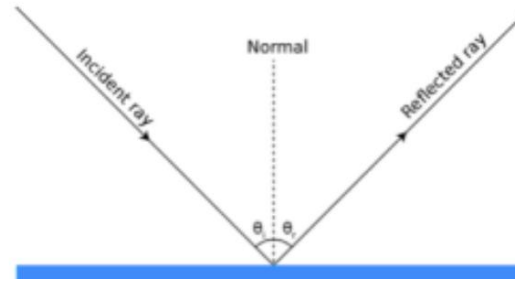
Shadows happen when light is blocked by an object. The **size** of a shadow changes if the **light source changes position**. How clear a shadow is changes if the object is **less opaque**.



What is reflection?

When **light bounces off an object**, it is called **reflection**. When light reflects, it **changes direction** and it **reflects off all objects**.

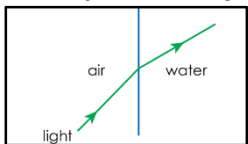
Some objects are more reflective than



What is refraction?

Light changes speed and direction when it travels through **transparent materials**.

The scientific word to describe light changing speed and direction through transparent objects is '**refraction**'.



When light refracts, it bends and can cause **illusions**.



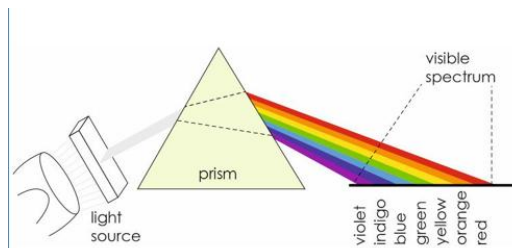
What colour is light?

Isaac Newton discovered that light is made up of different colours.



Differently coloured objects reflect and absorb different colours of light.

The colours being reflected are the ones that we see.



What is light pollution?

Light pollution is when too much artificial light is used; it affects the environment.

Examples include:



-glare from car headlights

-light spilling into areas where it is unwanted

-reflected light that causes the sky to look brighter, known as 'skyglow'

Light pollution can be reduced easily.

Examples of ways to control light pollution include only using light when and where it is needed, and only using the amount of light that is needed.

Lights can also be shielded,



Opaque



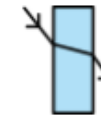
luminous



Translucent



Transparent



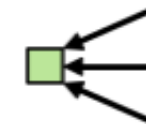
refraction



illusion



prism



absorb



colour



artificial



light



light



pollution