



Topic: Light

Year: 6

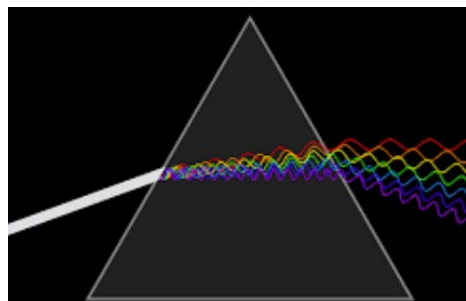
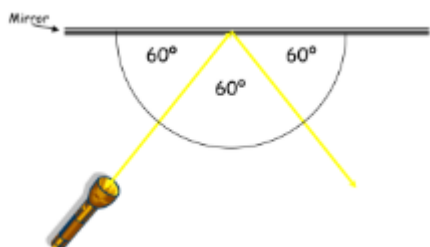
Term: 4

Background Information

To know that

- light in order to see things and that dark is the absence of light
- light is reflected from surfaces
- light from the sun can be dangerous and that there are ways to protect their eyes
- shadows are formed when the light from a light source is blocked by an opaque object

Diagrams



Interesting facts

- Light travels in a vacuum at 300,000 km per second (186,000 miles per second).
- Space does not have any light.
- Our main source of light on Earth comes from the Sun.
- The speed of light equals 300,000 km/second. Nothing else travels faster than light, not even sound!
- As light travels faster than sound you see lightning before you hear the thunder.
- It takes just over 8 minutes for light to travel from the Sun to Earth a distance of 93 million miles.
- The white light from the Sun is made up of the seven colours (spectrum) of the rainbow.
- White light can be split to give a range of colours: red, orange, yellow, green, blue, indigo and violet.
- Dispersion by a prism shows that white light is a mixture of all the colours (spectrum).
- If our Earth did not have an atmosphere, the sky would be black like outer space. We would be able to see stars in our daytime like an astronaut sees stars in space.
- When objects block the pathway of bright light, shadows are formed.
- A mirror has a very smooth surface. When a mirror reflects a ray of light the angle of incidence is always equal to the angle of reflection. Rough surfaces do not normally produce clear images.

absorption	when light stops at the object and does not reflect or refract e.g. wood.
disperse	to scatter over a wide area.
filters	a device that allows some substances, such as light, pass through it but not others
lenses	a piece of glass or similar material with one or both sides curved, used to bring together or spread light rays.
light	a type of energy that makes it possible for us to see.
light source	an object that produces light.
periscope	a tube with mirrors which is used in a submarine to see above the water.
prism	a transparent block which is used to disperse or refract light.
rainbow	an arch of different colours that sometimes appears in the sky after it has been raining.
reflect	when light bounces back off a surface rather than passing through it.
refract	to change the course of light passing from one medium to another.
shadow	the effect caused by an opaque object blocking light.
spectrum	range of colours found in a rainbow and produced when light passes through a

Know how to / Activity

Create a periscope!

