

# LIGHT

## WITH THE NAME OF ALLAH, MOST GRACIOUS, MOST MERCIFUL.

Light is a form of energy. It travels in straight lines. It follows the laws of reflection and refraction. The laws of reflection and refraction are different on, or through different materials or objects.

What is meant by the phrase 'reflected light'?

Most of the things we see are like the moon. They do not give off light of their own. Light from the sun, a lamp, or whatever else besides, shines on objects. This allows us to see the objects.

They reflect the light into our eyes, and the reflected light tells us what shapes, sizes and colours the objects are.

In a dark room, there is no light to bounce off things --- hence we cannot see objects. Reflected light shows us what there is!

What is meant by the law of refraction?

'To cause light to change direction when passing through at an angle,' is referred to as 'the law of refraction'.

Allah (S.W.T.) has enabled humans to achieve great breakthroughs in the field of science and technology.

As Muslims, we are taught to develop an insight into the wonderful world of nature in order that we may become mindful of Allah (S.W.T.)'s 'light'.

The following facts concerning light are worth noting:-

1) The bundles of light energy are called photons, which is derived from 'photo' meaning, light, and 'on', which means 'bit'. So photons are 'bits of light'.

2) Anything from a light bulb to a log fire gives off light. Can you imagine how much light something as big and hot as the sun gives off? The sun has a temperature millions of times hotter than a light bulb. So the sun keeps its electrons jumping and they pour out photons which help to light our planet.

## Worksheet

1) In the context of the above lesson, what is meant by the phrase, 'the law of refraction'?

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