

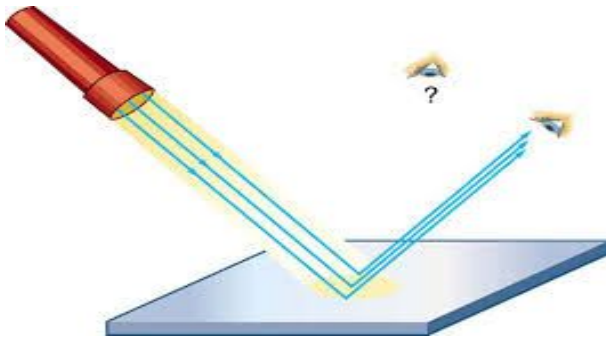
Light

Significant Scientist

Ibn al-Haytham



Ibn al-Haytham was born in 965BC in what is now present day Iraq. He was the first person to prove that we see because light reflects off objects and into our eyes. He was also one of the first thinkers to use a scientific method.



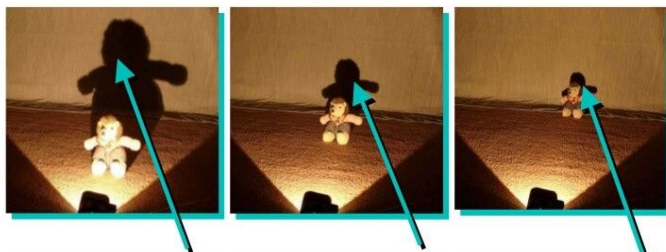
Enquiry Skills

Setting up tests

Observing and measuring

Interpreting and communicating results

Size of shadows



LARGE SHADOW
when the toy is
close to the light

SMALLER SHADOW
when the toy is further from
the light

TINY SHADOW
when the toy is a long way from
the light

Key Knowledge

How we see things:

Light beams are projected from the light source (e.g. the sun). These beams travel in a straight line until they meet an object. The light beams are then reflected off the surface they meet, until the light enters the eye.

The light activates cells inside our eyes which are processed by our brain into an image. This all happens very fast.

All of the objects we can see are only visible when light has reflected from them.

Sun safety:

Sunlight can damage your eyes. Protect them by wearing sunglasses or a hat. Never look directly at the sun.

How are shadows formed?

A shadow is an area of darkness produced by an object coming between light and a surface.

Transparent and translucent objects create faint shadows.

Opaque objects create dark shadows.

The distance between the object and the light source will affect the size of the shadow.

Working Scientifically Skills

Oral and written explanations, conclusion, predictions, classify, collect data and evidence, improve, use secondary sources.

Ask relevant questions.

Data – gather, record, classify, present.

Record – drawings, labelled diagrams, tables.

Key Vocabulary

light	Light is a type of energy that makes it possible for us to see the world around us.
light source	An object that emits light.
light beam	A projection of light energy radiating from a light source.
dark/darkness	The absence of light in a place.
reflect	To bend or throw back.
opaque	A material you are not able to see through, does not let light pass through it.
transparent	A material allowing light to pass through so that objects behind can be seen clearly.
shadow	An area of darkness produced by an object coming between rays of light and a surface.
translucent	A material allowing light, but not detailed shapes, to pass through (semi-transparent).
blocked	When one thing gets in the way of another thing.
mirror	A surface, typically glass coated with metal, which reflects a clear image.
reflective	Something that creates a reflection.
sunglasses	Glasses with dark lenses which you wear to protect from your eyes from bright sunlight.

