



Key Vocabulary	
light	a brightness that lets you see things.
dark	the absence of light.
emits	to emit a sound or light means to produce it.
mirror	a flat piece of glass which reflects light, so that when you look at it you can see yourself reflected in it
reflect	sent back from the surface and not pass through it.
opaque	if an object or substance is opaque, you cannot see through it.
translucent	if a material is translucent, some light can pass through it.
transparent	If an object or substance is transparent, you can see through it.
shadows	a dark shape on a surface that is made when something stands between a light and the surface
source	where something comes from
surface	the flat top part of something or the outside of it.
absorb	take in or soak up

### What is light?

Light is a type of energy that lets us see things.



If there is no light then it is dark and we can not see anything.



### Focused 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.



### Shadows

When light is blocked by an opaque object, a dark shadow is formed. An opaque material blocks light so we can't see through it or shine a light through it.

When light is shone onto a transparent object, the light travels through it, we can see through it and it makes a very faint shadow.

When light is shone onto a translucent object, some of the light travels through it, we can see bright light sources through it and it makes a fairly dark shadow.

### Light Sources

- A light source is something that emits light by burning, electricity or chemical reactions.
- Burning light sources include the Sun, flames from a fire and stars.
- Electric lights include lamps, car headlights and street light.
- Lights that are caused by chemical reactions are much less common.
- This happens when different chemicals react and light is a product of that reaction.

Examples can include glow sticks and fire flies.

### Shiny surfaces reflect light



### Matt surfaces don't reflect light very well.



### Sunlight

- The light from the sun can be dangerous.
- It can damage our eyes. We must never look directly at the sun.
- We can protect our eyes by wearing sunglasses or sunhats in bright sunlight.