

Year 3 Science Knowledge Organiser - Light

Word	Definition
Dark	Darkness is the absence of light.
Light	We can see objects because our eyes can sense light.
Light source	Some objects emit their own light and are sources of light.
Mirror	A sheet of glass or metal that reflects light.
Opaque	A material that light cannot pass through. You cannot see through it.
Reflect	When light bounces off a surface
Shadow	These are formed when an object blocks light.
Translucent	A material that lets some light through but not all of it.
Transparent	A material that is completely see through so all the light can pass through.

Why do we need light?

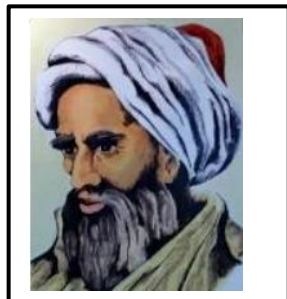


We need light to see things.



The more light there is, the easier it is to see objects

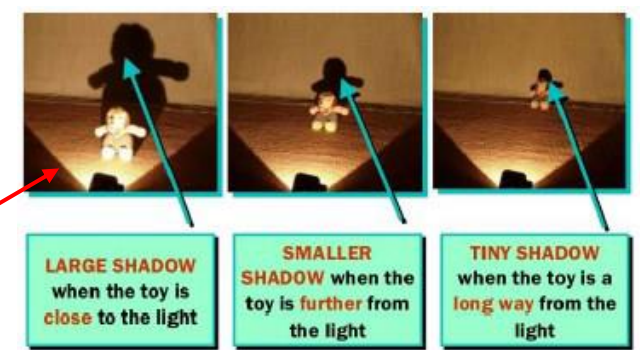
Reflection and how we see things:
 Light beams are projected from the light source. Light travels from the source in a straight line until they meet an object. The beams of light are then reflected off the surface it meets, until the light beam enters the eye. The light activates cells inside our eyes which are processed by our brain into an image. This all happens incredibly fast! All of the objects we can see are only visible when light has reflected from the objects.



A significant Scientist - Linked to the topic of Light:
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.

Sticky Knowledge is in red!

Darkness and how Shadows are formed.
 Darkness is the absence of light. A shadow is an area of darkness produced by an object coming between beams of light and a surface.
 They look different depending on the transparency of the object. Transparent objects = faint shadows (more light gets through the object). Translucent objects = darker than transparent objects and lighter than opaque objects. Opaque Objects = Dark shadows. The distance between the object and the light source, near or far/ high or low, will affect the size of the shadow!



SUNLIGHT:

- Light from the sun can be very dangerous.
- We must never look directly at the sun, as it can damage our eyes.
- Always protect yourselves in the sun by wearing sun glasses, sunhats and sun cream.