Plymouth Science

Knowledge Organiser

Light

VOCABULARY

Light- Light is a type of energy that makes it possible for us to see.
Source of light- The sun and other stars, fires, torches and lamps all make light are examples of light sources.
Dark- with little or no light
Absence of light- refers to darkness. No or little light
Transparent- allows light to pass through
Translucent- allows light but not detailed shapes to pass through- diffuses light.
Opaque- An opaque material does not let light through. It does not reflect light.
Shiny- reflect light, typically clean and polished.
Matt- dull and flat without a shine.
Surface- outside part of uppermost layer of something
Shadow- dark area or shape produced by an object coming between rays of light and a surface.
Reflect- throw back light without absorbing it.
Sunlight- light from the sun.

Light Sources

Natural	Artificial
 Sun	 Torch
 Candle	 Television
 Fire	 Light bulb



White light is made of a spectrum of colours with different wavelengths: red, orange, yellow, green, blue, indigo and violet.

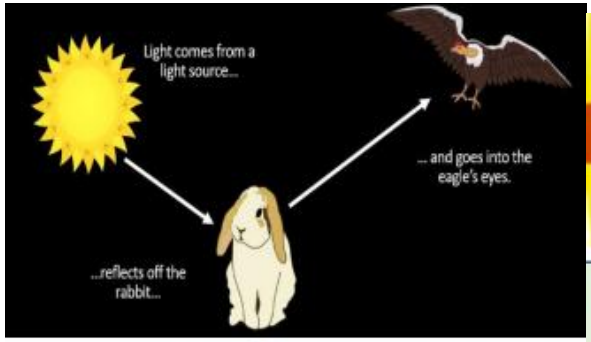
Reflection



reflection

Light bounces off surface and changes direction as a result.

How we see things

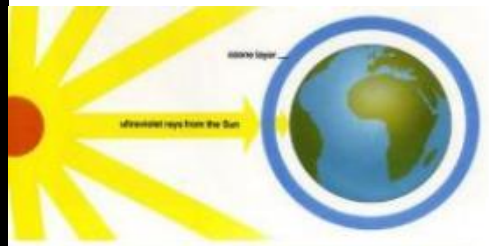


Light comes from a light source, reflects off the object and enters the eye.

Facts

-Light travels in straight lines.
-Light from the sun can travel to Earth through a vacuum in 8 minutes.
-We need light to see.
-Light is a beam of energy.
-Plants turn light energy into food.
-Light travels at 300,000 km/second.

UV Light



Electromagnet radiation from the sun or man-made objects such as sunbeds.

It is very dangerous to look directly at the sun.

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Shadows



A shadow is made when an object blocks light since light cannot get to the area behind the object blocking it, a shadow appears.

Sun Shadows

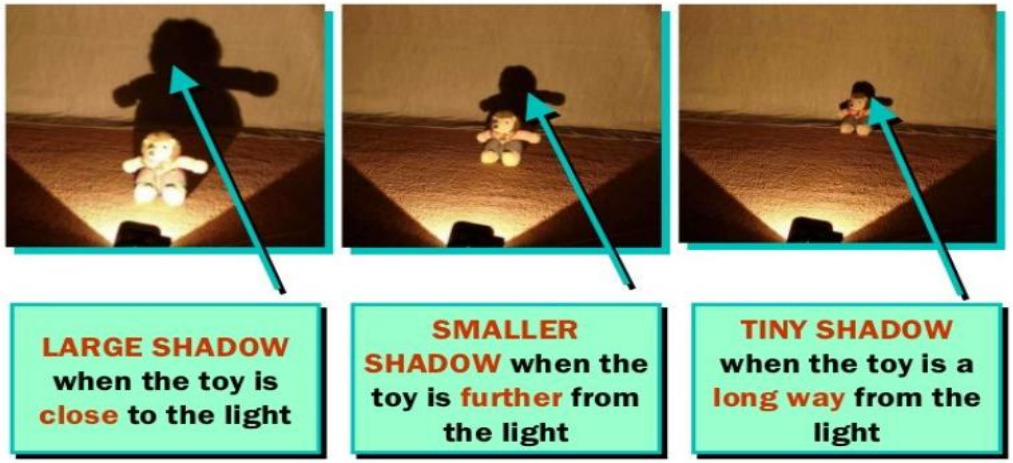


The Earth spins around once every day.

When your part of Earth faces the sun, it looks like the sun rises in the morning and moves across the sky.

Shadows are long in the morning and evening, but shortest at lunchtime when the sun is high in the sky.

Size of shadows



Sundials

- A sundial is a tool that tells the time using the sun.
- It has a stick or a rod that stands up on a flat surface.
- When the sun shines, the stick makes a shadow on the ground.
- As the sun moves across the sky, the shadow moves too.
- You can look at where the shadow is to know what time it is.

