

Autumn 2 2019 - Light and Shadows-Science Knowledge Organiser

KEY VOCABULARY

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Opaque

Opaque materials do not let any light through. (E.g wood)

Electricity

A form of energy that provides power to devices.

Translucent

Translucent materials let some light through, but they scatter the light in all directions so you cannot see clearly through them. (E.g tissue paper.)

Source

A thing from which something starts.

Transparent

Transparent materials let light through them in straight lines, so that you can see clearly through them. (E.g glass)

Warning

Something that is said or written to tell people of danger

Shadow

A dark area which is formed when light from a light source hits an opaque object

Reflection

When light bounces off a surface



Light

We need light to be able to see things

Darkness is the absence of a source of light.

Light travels in a straight line

Objects that give out light are called sources of light.



How we see things

We see things when light from a light source enters our eyes through the pupil



Pupil

Light travels from the light source and into the eye

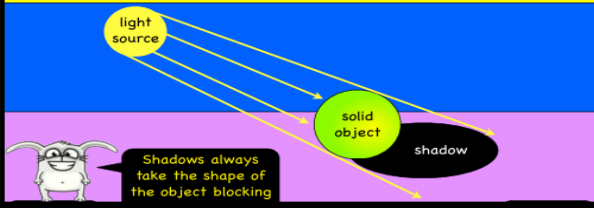
The Sun

WARNING!

Never look at the sun. Always wear sunglasses to protect your eyes



Shadows are formed when light is blocked by an object. This is because light can only travel in straight lines. It cannot bend. If an object gets in the light's path, a shadow will form because the light cannot get through the object.



Some objects are designed to reflect a lot of light so that they can be seen clearly when a light shines on them in the dark. These objects all have reflectors which makes them easy for drivers to see when their headlights shine on them in the dark.



Transparent

If an object is transparent, it means light completely passes through it and you can see clearly through it.



Translucent

If an object is translucent, it means that some light passes through it but the light is scattered so you can't see clearly through it.



Opaque

If an object is opaque, it means no light can pass through it. It blocks the light.



The facts we need to know:

- Recognise that light comes from a source and what those sources are
- Know that in order to see things, we need light.
 - Dark is the absence of light
- Light from the sun can be dangerous and we need to protect our eyes
- Know that shadows are formed when light from a light source is blocked by something solid.
- Know vocabulary such as; opaque, translucent and transparent

