

Prior Learning to Reactive

This is the first time this subject is discretely taught within the Primary Curriculum.

- Identify, name, draw and label the basic parts of the human body and say which part is associated with each sense (Year 1)

Scientific Skills

Looking for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.

Describe patterns in visibility of different objects in different lighting conditions and predict which will be more or less visible as conditions change using data loggers

Key vocabulary

light source	A human made or natural object that emits light.
darkness	Darkness is the absence of light.
reflection	Reflection is a change in direction of a light wave as it reaches an object.
mirror	A surface, usually made of glass coated with a thin metal layer, which reflects a clear image.
ultra violet	Ultra violet is a type of light ray emitted by the sun which can damage living tissues.
opaque	An opaque object cannot be seen through. Wood is a good example of an opaque material.
transparent	A transparent object can be seen through. Glass is a good example of a transparent material.
translucent	A translucent object will allow some light to travel through it. Tissue paper is a good example of translucent material.
shadow	A dark area or shape produced by a solid object coming between rays of light and a surface.

Key learning

Humans use their eyes to see. Light is reflected from objects and into the eyes. Therefore, a light source is essential. Light sources can be natural, such as the sun, or human made, such as an electric torch or candle.

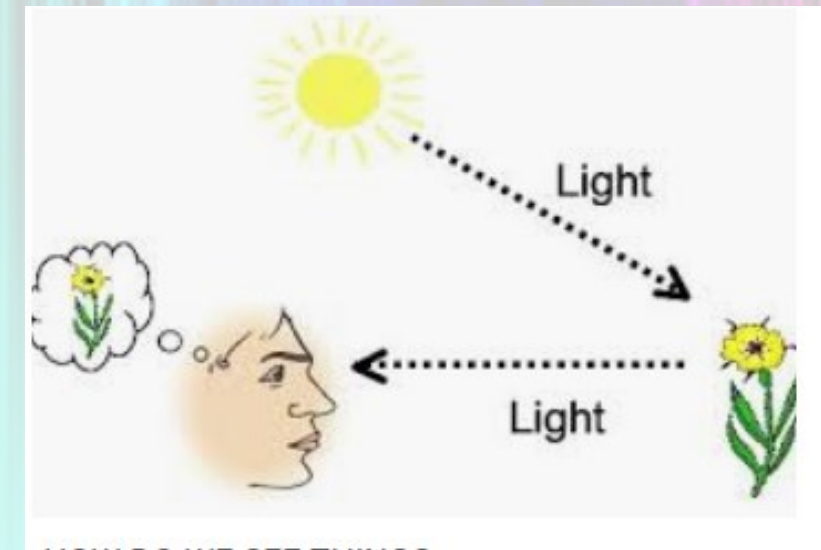
Darkness is defined as the absence of light. If there is no light source at all, for example in a cupboard, humans cannot see at all.

When light meets an object, it is bounced or reflected off the surface of the object. Some surfaces reflect more light than others, such as mirrors. Dull or dark surfaces absorb more of the light rays and reflect less light.

The sun is the greatest source of natural light for the planet. Sun rays are made up of ultra violet light which can be harmful to human eyes. Sun hats and sunglasses offer good protection from these rays.

Shadows are formed when light from a light source is blocked by opaque, or solid, objects. The light rays are blocked by the object and this results in an area of darkness behind the object. This area is called a shadow and will be the same shape as the object.

The shape of a shadow can be distorted and change size. If the light source moves closer to the object, the shadow will be larger. If the light source moves away from the object, the shadow will be smaller.



Shadows are places where light is "blocked"

