Science Knowledge Organiser

Year 4	Light	Summer 1

Light sources

A light source makes light. The Sun and other stars, fires, torches and lamps all make their own light, so they are examples of sources of light.



Key Vocabulary

dark - the absence of light

direction - the way that something is moving

light - a source of energy that allows you to see

light ray - an imaginary line that represents the line of light

light beam - a group of light rays

light source - something that makes light

opaque - cannot be seen through

reflect - bounces off or changes direction

reflective - something that reflects well

refraction - when light changes direction when going through the boundary of a state of matter

see - to perceive with the eyes

shadow - a dark area or shape produced by an object coming between rays of light and a surface

transparent - can be seen through

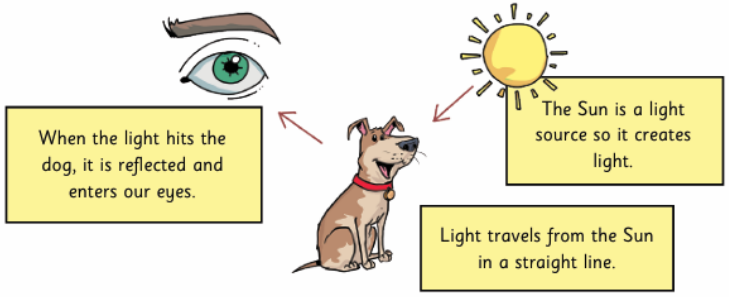
translucent - can be seen through, but not clearly

Reflective light

We can see things because light is reflected. Some materials reflect light better than others.

Light travels in straight lines. When light from an object is reflected by a surface, it changes direction.

Smooth, shiny surfaces such as mirrors and polished metals reflect light well. Dull and dark surfaces such as dark fabrics do not reflect light well.



Types of objects

Objects are either opaque, translucent or transparent.

Opaque objects let no light pass through.

Translucent objects let some light pass through.

Transparent objects let light pass through.



Shadows

A shadow is made when an object blocks light. A shadow is a dark area or shape caused by a solid object blocking the rays of light from a light source.



Dark

Darkness is what happens when there is an absence of light. When there is no light, it is dark.

