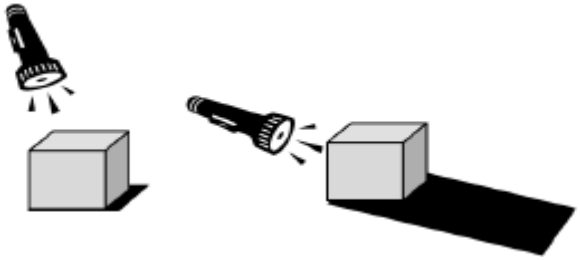
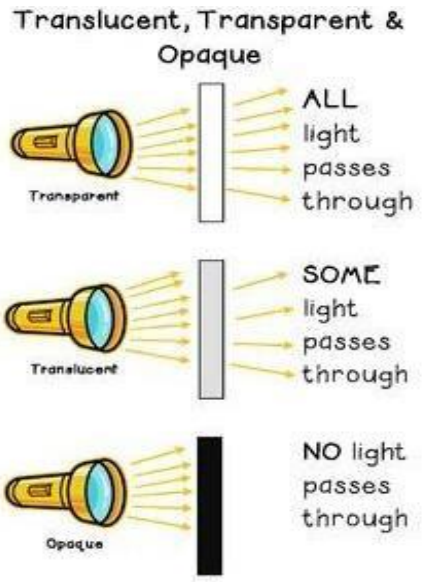
Knowledge Mat- LKS2 Science – Light and Shadows

Subject Specific Vocabulary	
Light source	An object that produces its own light (e.g. sun, fire).
Reflection	When a light hits a surface and 'bounces' off.
Refraction	When light passes through a different object and its direction changes.
Opaque	An object which **does not allow** light to pass through it (e.g. wood).
Translucent	An object which **allows some** light to pass through it. It may be possible to see some unclear images through the object (e.g. tissue)
Transparent	An object which **allows** light to pass through it so that objects behind it can be easily seen (e.g. glass).
Spectrum	A range of colours caused when white light is refracted. A rainbow shows a spectrum of colours.
Rainbow	An arch of colour caused by the refraction of light on water droplets in the air, usually rain (**R**ed, **O**range, **Y**ellow, **G**reen, **B**lue, **I**ndigo, **V**iolet).
Prism	A solid 3D shape where two end faces are similar and parallel.
Shadow	A dark area or shape caused by the blockage of light.



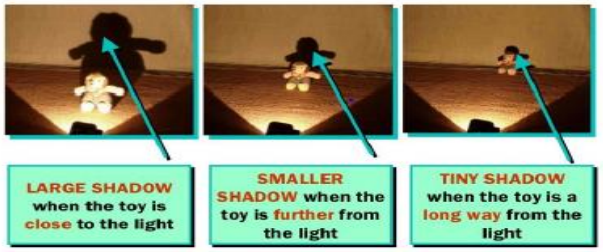


Important facts to know by the end of the Science topic:

Light travels in a straight line
Light travels faster than sound.
A light year is a unit of measurement for distance. It is the distance light can travel in a year.
The size and shape of a shadow changes based on the distance and angle compared to the light source.
Darkness is caused by the absence of light.
The moon does **not** emit its own light – it reflects the sun.
Ultraviolet light is a type of radiation which you can't see but can be dangerous. UV rays can come from the sun.

Sticky Knowledge

- ❑ I know that we need light in order to see things
- ❑ , I know that dark is the absence of light.
- ❑ I can identify a range of light sources
- ❑ I can name a way to protect my skin or eyes from the sun?
- ❑ I know that shadows are formed when light is blocked
- ❑ I know the difference between objects that are transparent, translucent and opaque
- ❑ I can explore shadows and record their observations.
- ❑ I can explain that a shadow is made because light is being blocked.
- ❑ I know where a shadow will be based on the position of the light source? Can
- ❑ I can explain why shadows created by the Sun change position during the course of a day
- ❑ I can identify ways in which we use reflective surfaces?



As the **light source** moves **higher**in relation to the **object**, the **shadow** gets **shorter**. As the **light source** moves **lower**, the **shadow** gets **longer**.