



Science Knowledge Organiser

Year 3: Autumn Term



Key Skill: Physics - Light

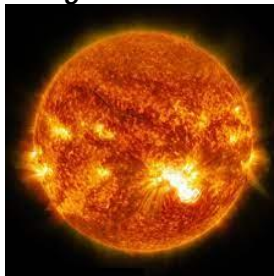
Know how to:

- Recognise that they need light in order to see things, and that dark is the absence of light.
- Notice that light is reflected from surfaces.
- Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.
- Recognise that shadows are formed when the light from a light source is blocked by an opaque object.
- Find patterns in the way that the size of shadows change.

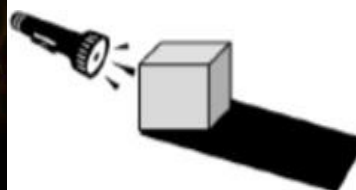
Key questions:

- What is the difference between light and dark?
- Why does light reflect from surfaces?
- Why can light sometimes be dangerous and how can we protect ourselves?
- How are shadows formed and why do they change size?

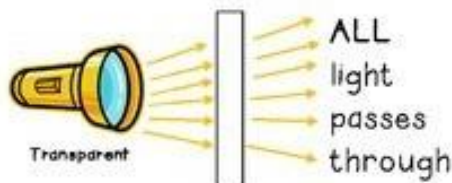
light source



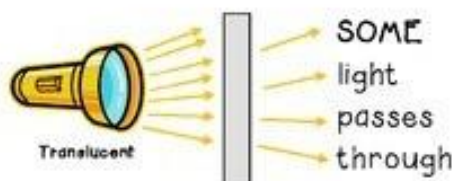
shadow



Translucent, Transparent & Opaque



ALL light passes through



SOME light passes through



NO light passes through

Key vocabulary:

light source – An object that produces its own light.

Example: the sun, torch

transparent – An object that allows all light to pass through it.

Example: glass, clingfilm

translucent – An object that allows some light to pass through it

Example: tissue paper, curtains

opaque – An object that doesn't allow any light to pass through it.

Example: wood, metal

surface – The outside or top layer of an object.

Example: the shell of an egg

shadow – A dark area or shape caused when an object blocks the light source.

Example: shadow puppet

reflect – When light hits an object and 'bounces back off'.

Example: the moon, a mirror