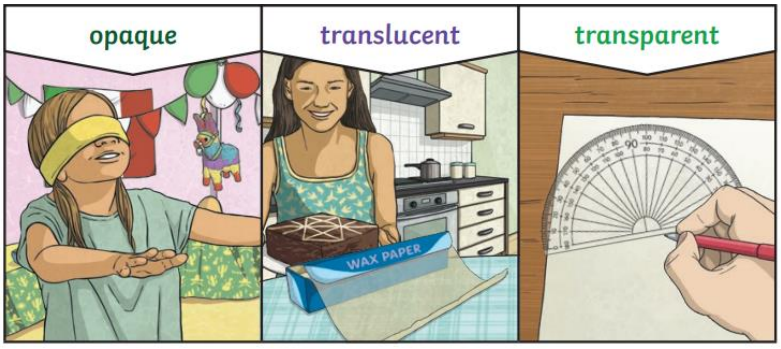
# Frogwell School Year 3 Knowledge Organiser Term 4
# Light

Working scientifically

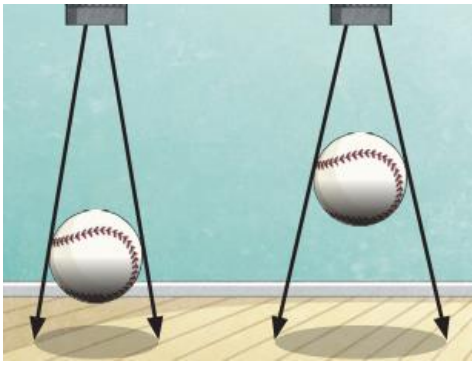
- Ask questions about light and carry out practical enquires and fair tests to answer them.
- Make careful observations of light and shadows.
- Gather, record and present data in different ways to show our answers.
- Use scientific language and evidence to explain what we are finding out about light.
- Use our results to draw simple conclusions about how light and shadows are formed and changed in the world.

| KEY VOCABULARY TO LEARN | |
|---|---|
| **Light** | A form of energy that travels in a wave from a source. |
| **Light source** | An object that makes its own light. |
| **Dark** | Dark is the absence of light. |
| **Transparent** | Describes objects that let light travel through them easily, meaning that you can see through the object. |
| **Translucent** | Describes objects that let some light through, but scatter the light so we can't see through the properly. |
| **Opaque** | Describes objects that do not let any light pass through them. |
| **Ray** | Waves of light are called light rays, they can also be called beams. |
| **Shadow** | An area of darkness where light has been blocked. |
| **Reflection** | The process where light hits the surface of an object and bounces back into our eyes. |
| **Reflective** | A word to describe something which reflects light well. |



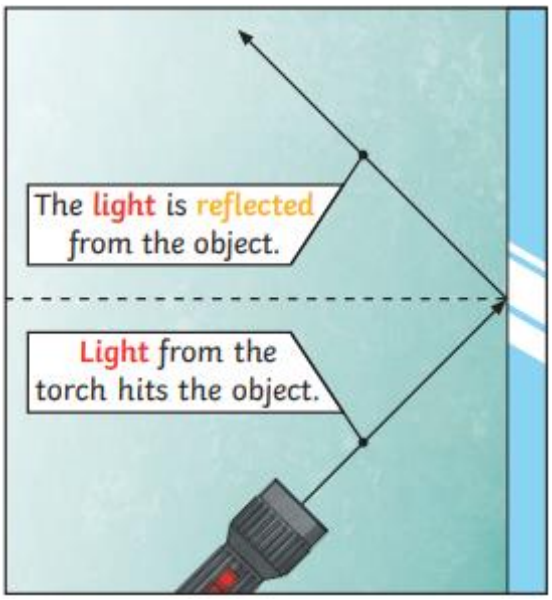

Shadows:

A shadow is caused when light is blocked by an opaque object. A shadow is larger when an object is closer to the light source. This is because it blocks more of the light.




Light source:
When the light source is directly above the object, the shadow will be directly underneath.
When a light source is to one side of an object, the shadow will appear on the opposite side. The shadow will also be longer.


Reflection
We need light to be able to see things.
Light travels in a straight line. When light hits an object, it is reflected (bounces off). If the reflected light hits our eyes, we can see the object.
Some surfaces and materials reflect light well.
Other materials do not reflect light well.
Reflective surfaces and materials can be very useful…


Mirrors reflect light very well, so they create a clear image.
An image in a mirror appears to be reversed. For example, if you look in a mirror and raise your right hand, the mirror image appears to raise its left hand.