## Light & Shadow

## I should already know: -

- > Light allows us to see. The absence of light = dark.
- > Light comes from the sun..

We need light to be able to see things.

Light travels in straight lines.



When light hits an object, it is reflected (bounces off).

If the reflected light hits our eyes = we can see the object.

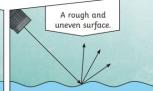


Some materials are very reflective. This can be very useful....

For example, wearing a hi-vis jacket when you are riding your bike in low light helps you to be seen easier. 'Cats eyes' are reflective lights in the middle of the road that help drivers to see the road at night time.







The surfaces that reflect light the best are smooth, shiny and flat.







A shadow is formed when light is blocked by an opaque object. The shadow will always be on the opposite side of the object to the light source.

. shadow is <u>larger</u> when it is <u>closer</u> to the light source. This is because it blocks more light.

Light from the sun can be dangerous. Never look at the sun. wear sunglasses and a hat to protect your eyes.

Different materials let different amounts of light through.

opaque

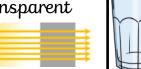




translucent



transparent





## Key vocabulary:

<u>light -</u> a type of **energy** that travels in a wave from a source to let us see things.

<u>light source</u>— an object that makes its own light.

opaque—objects that block light/do not let light through.

reflect—when light bounces off a surface.

<u>ray</u>—waves of light are called light rays or light beams.

shadow—a dark shape or outline of something that is made when light is blocked.

transparent—clear, seethrough— an object that lets light pass through.

translucent- lets some light through.