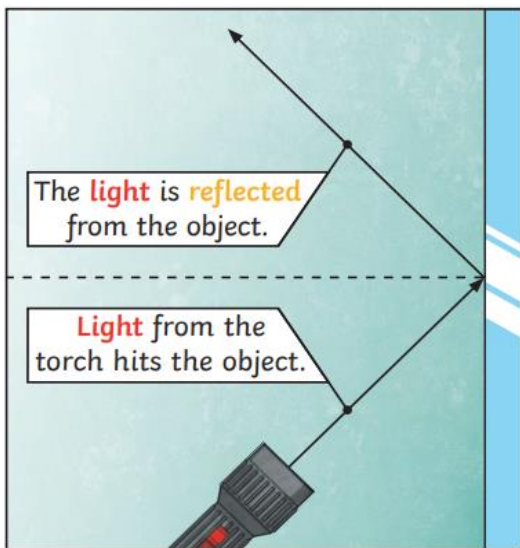




What is light?

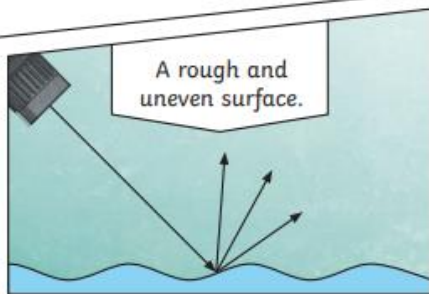
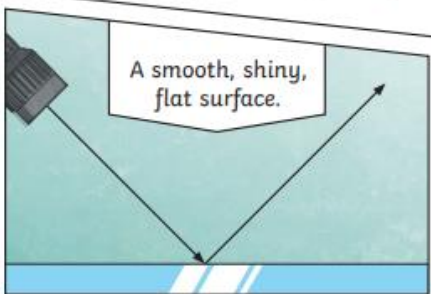
We need light to be able to see things. Light travels in a straight line. When light hits an object, it is reflected (bounces off). If the reflected light hits our eyes, we can see the object. Some surfaces reflect light well. Reflective surfaces can be very useful, such as hi-vis clothing or cats' eyes.

LIGHT



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 appears to raise its left hand.

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



Sources of light



Key Vocabulary

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.
Reflection	The process where light hits the surface of an object and bounces back into our eyes.
Reflect	To bounce off.
Reflective	A word to describe something which reflects light well
Ray	Waves of light are called light rays. They can also be called beams.

DARK



When light is blocked by an object at some distance, a shadow is formed behind the object.



The closer an object is to a source of light, **the bigger** its shadow is.



The farther an object is from a source of light, **the smaller** its shadow is.

Key Vocabulary

Shadow	An area of darkness where light has been blocked
Opaque	Not letting any light pass through them.
Translucent	Allowing light, but not detailed shapes, to pass through
Transparent	Allowing light to pass through so that objects behind them can be seen clearly

Why do we use reflective materials?

We use materials that reflect light because they help us or things to be seen. For example, when we are outside at night, we need reflective materials for safety reasons, like when we cross the road!



Investigation

Question:

What surfaces reflect light?

To investigate, you could shine a light on the different materials and see which has the most light shining from it!

Prediction:

I predict that the _____ material will reflect light the best.

Method:

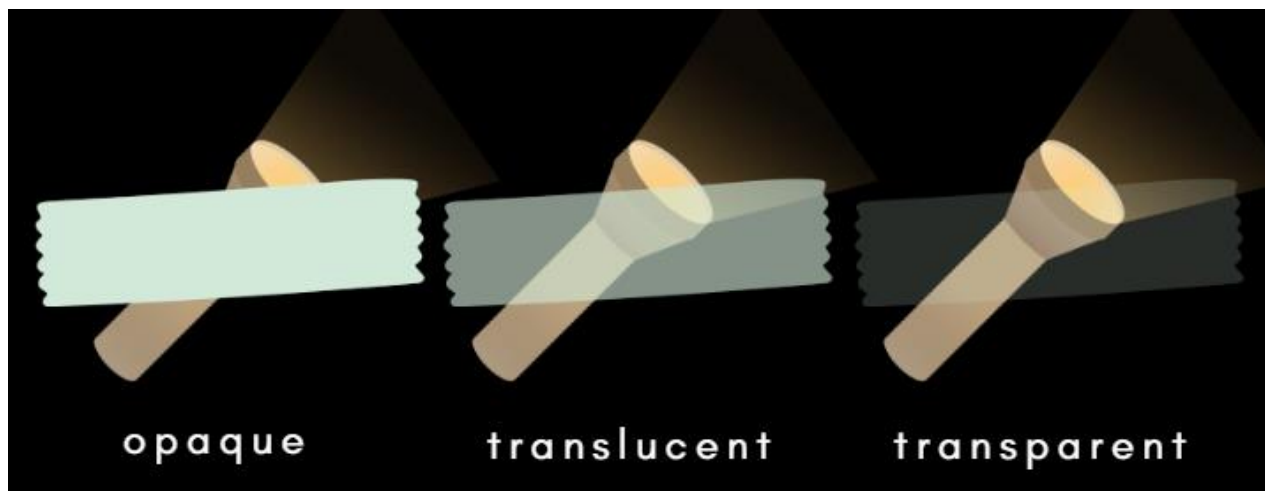
Attach a piece of white card to a torch.

Cut a hole in the centre of the card and push the torch through so the card fits snugly around the torch.

Shine the torch at the material you are testing.

Results:

If the material reflects light well, you will see the reflected light shine through the white card and light it up.



opaque

translucent

transparent