

## Interesting Facts 4 - Reflection / Reflective

We can't see anything without light. Our main source of light is the sun, but we have other light sources for when the sun isn't shining, or if the weather is bad, or if it's dark, or night time; like lamps, electric light, candles and torches.

We see things when light rays bounce off them, or are reflected. Certain coloured materials reflect better than others. White or light colours reflect much better than dark or black colours. Also, if the surface of the material (or object) is rough or bumpy, light doesn't reflect as well as when it's smooth and polished like a mirror.

Mirrors have been used for thousands of years. First by polishing a volcanic rock called obsidian, which was glossy and black. Later the Greeks and Romans polished bronze to use as mirrors.

Now we have mirrors made of glass, with a fine layer of silver coating on the back. This process called 'silvering' was invented by Justus Van Liebig – a German chemist in 1835.

Flat mirrors reflect the image and it appears the same size and shape. Curved mirrors distort the image (try looking at yourself in the back of a spoon, then the front).

A ray of light hitting a smooth flat reflective surface at right angles is reflected back along the same parallel part. If it hits at an angle it is reflected back at the opposite angle.

