

Thursday 26<sup>th</sup> March – Science information and task

## Light

Watch this video first:

<https://www.bbc.co.uk/programmes/p0117x4g>

Then answer these questions in your exercise book.

What is the difference between a light source and a reflector? Why did the cat's eyes glow in the dark?

As well as a torch, how many different light sources can you think of? Which of these are natural, and which are man-made?

Look up the word 'emit' in a dictionary, online, or ask someone at home who knows what it means. What does this word have to do with light sources?

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Light is a type of energy known as electromagnetic radiation. It is made up of photons, little particles of energy. Light travels as a wave. But unlike waves of water, or sound waves, it does not need any medium to travel through. This means light can travel through a vacuum - a completely airless space.

Now have a look at this video:

[https://www.youtube.com/watch?time\\_continue=54&v=d7yTlp4gBTI&feature=emb\\_logo](https://www.youtube.com/watch?time_continue=54&v=d7yTlp4gBTI&feature=emb_logo)

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Light waves travel out from sources of light in straight lines. These lines are often called rays or beams of light. When light hits an object, it is reflected (bounces off) and enters our eyes. This is how we see the object. When light from an object is reflected by a surface, it changes direction. It bounces off the surface at the same angle as it hits it.

Have a look at this video to explain more:

<https://www.bbc.co.uk/programmes/p0119rsp>

If you have a torch, have a go at bouncing the light off different surfaces in a dark room, and see which is the most reflective surface you can find.

In your notebook, answer the following question:

How does the brightness of a light source affect what we see?