

**Wednesday 23<sup>rd</sup> September 2020**

**LO: To know that light travels in a straight line and that we need a light source to see.**

We have already discussed that light travels in a straight line, and that we need light sources to see, but how do we know this?

Can you use light sources in your own home to investigate this? Try shining a torch or a lamp in a darkened room. What do you notice? What can you see? How can you make it easier to see individual objects? Make notes on your investigations and think about what they prove.

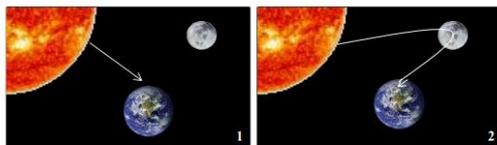
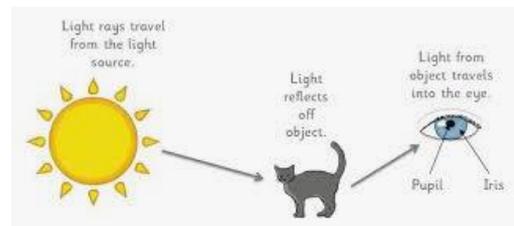
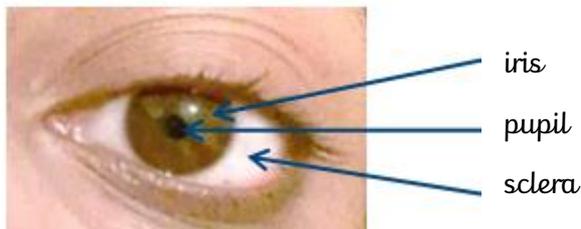
Perhaps you can have a go at this experiment to prove light travels in a straight line:  
<https://www.youtube.com/watch?v=4xq6TTsyOI>

Take some pictures of your experiments or write up what you did and send it to us on Class Dojo or SharePoint.

But what about how we see? If light does not come out of our eyes (which it doesn't) then HOW does it help us to see?

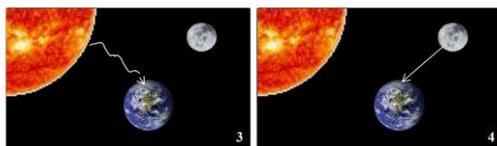
Think back to your darkened room investigation. When was it easier to see the objects? When the light shone on them – not on you. So why is this?

Look at your eyes. The pupils in your eyes change size to let more light in when it is dark or less light in when it is bright. This is important because too much light can damage our eyes (which is why you never look directly at the sun). Not all objects give off light, so we see some objects because light reflects off their surface and into our eyes.



Look at these images. Which diagram correctly shows how we see the moon?

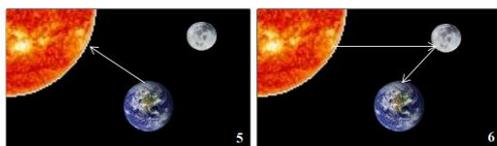
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How do you know?

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Can you explain why the moon is not a source of light?

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Look at this image. How does the person see the book? Draw arrows to show this correctly.



**What have we learnt?**

Write a few sentences to show what you have learnt from this lesson.

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Other helpful videos:

<https://www.bbc.co.uk/bitesize/clips/zyntsbk>

[https://www.youtube.com/watch?v=fn\\_GAlrBuQ](https://www.youtube.com/watch?v=fn_GAlrBuQ)

<https://www.bbc.co.uk/bitesize/clips/zf9c87h>