

SHQ: How does light travel?

Last week, you were asked to create a shadow puppet and think about how and why your puppet makes shadows.

In this lesson, you will be looking further at how shadows are created but firstly, we are going to investigate some facts about light and light sources.

Here are some questions for you to think about:

1. What is our main **light source**?
2. How many **light sources** can you name?
3. Can you name some **natural and man-made light sources**?
4. What do we mean by a '**reflector**'?
5. Is the moon **a light source**?
6. If you had to draw a diagram showing **how light travels from a light source**, what would your diagram look like?
7. What happens when **a beam of light hits a solid object**?
8. What do we mean by the words **transparent, translucent and opaque**?

Use the internet to try to find answers to the questions above.

The BBC Bitesize link below has lots of resources including facts, diagrams and some videos to watch to help you answer the questions.

<https://www.bbc.co.uk/bitesize/topics/zbssgk7>

In your answers, have a go at drawing a diagram showing how light travels from a light source; what happens when it hits a solid object, and how the light is reflected into our eye allowing us to see the object.

You can also use the Worksheet 11 resource which is a Power point presentation that we usually share in class when introducing this topic. There are some useful facts in it as well as some diagrams that will help you understand how light travels.