

Bretnside Knowledge Organiser - Science

Year: 6	Topic: How can you light up your life?	National curriculum: recognise that light appears to travel in straight lines •use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye •explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes •use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.
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What I should already know:

1. different sources of light
2. Why light is so essential to every day life
3. How and why we have day and night

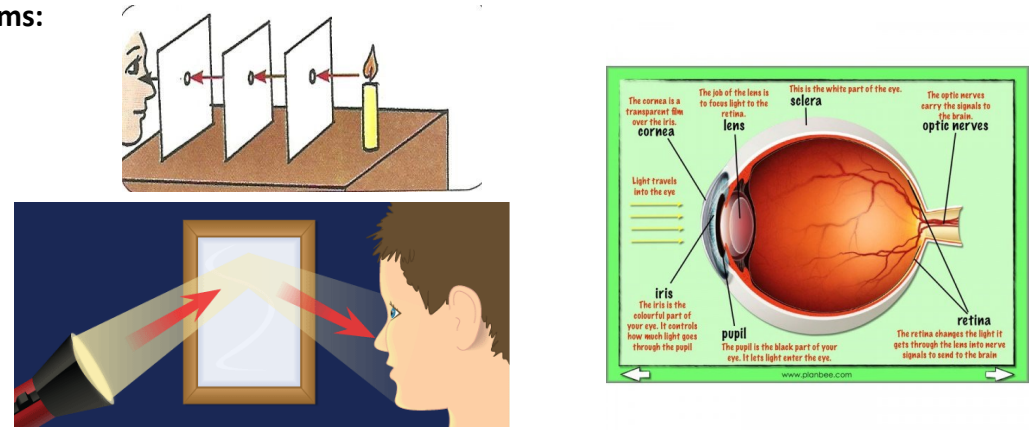
What I should know at the end of the topic:

Speed of light and sound	How do we know that light travels faster than sound?
Direction of light travel	How can you set up an experiment to show that light travels in straight lines?
Eyes /sight	How do your eyes work?
How light bends/ reflects	How can you use mirrors to see around blind corners?
Importance of	Spend a small period of time being blind folded and see how suc-

Time line:

1. can I describe how light travels and how is it different to sound
2. Can I work scientifically to see how light travels
3. Can I accurately label a diagram of an eye and identify the major functions
4. Can I describe how mirrors bend the light so that we can see around corners
5. Can I state the importance's of our eye sight

Diagrams:



Vocabulary

Eyes	Globular organs of sight in the head of humans and vertebrate animals
Filter	Pass through a device to remove unwanted material (liquid, gas, light or sound)
Light	The natural agent that stimulates sight and makes things visible
Light source	Something that provides light, whether it be a natural or artificial source of light (e.g. the sun, a torch)
Periscope	An apparatus consisting of a tube of attached to a set of mirrors or prisms through which an observer can see things that are otherwise out of sight
Reflection	The throwing back by a body or surface of light, heat or sound without absorbing it
Refraction	The bending of light as it passes from one substance to another with the bending caused by the difference in density between two substances
Shadow	A dark area or shape produced by a body coming between rays of light and a surface
Spectrum	A band of colours, as seen in rainbows, produced by separation of the components of light by their different degrees of refraction