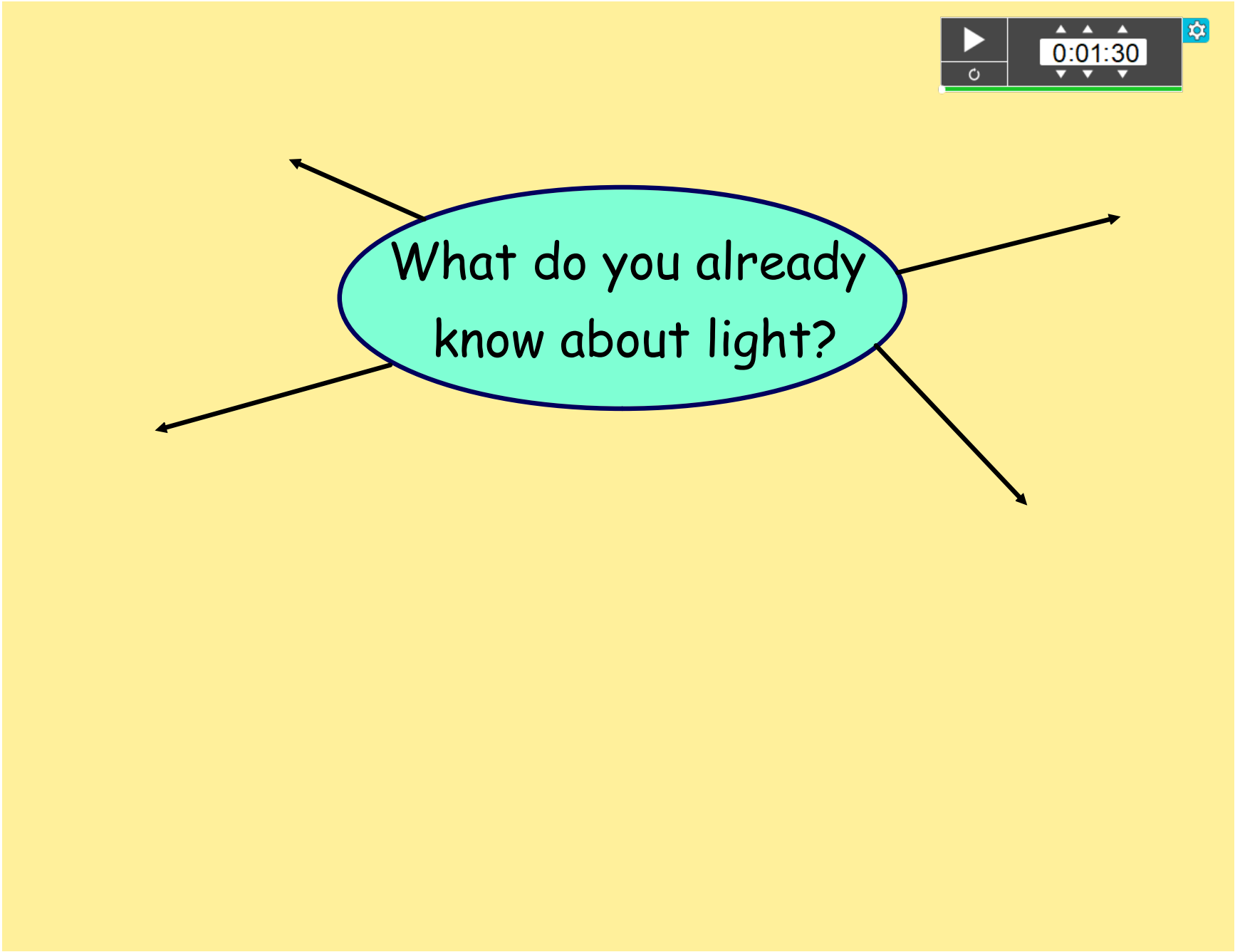

0:01:30
What do you already know about light?

This video will give you a brief introduction into the topic of Light. What have you learnt from watching this video?

https://www.bbc.co.uk/bitesize/clips/zg6r82p

During this unit of work you will come across a range of vocabulary. Look at the words, do you know the meaning of any of them?

opaque

source

kaleidoscope

transparent

reflection

retina

concave

convex

translucent

prism

shadow

rainbow

periscope

refraction

pupil

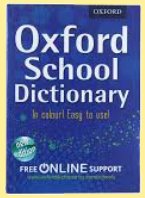
eyelid

lens

optic nerve

cornea

iris



Jot down any definitions that you already know, then look up 3 that you don't !

L.O. I can explore light sources and identify how light travels

How do you feel about meeting the LO today?

L.O. I can explore light sources and identify how light travels

Today's lesson will be split into two parts. Part 1: we will explore different examples of light sources. Part 2: we will investigate how light travels.

There are two different sources of light - natural and man-made - can you list any?

natural	man-made

Create a chart like this and write down any examples oyu can think of!

L.O. I can explore light sources and identify how light travels

What does natural and man-made light sources mean?

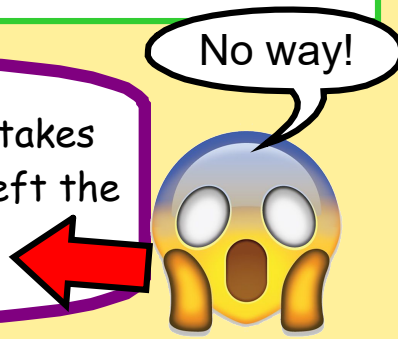
Natural Light

Natural light source is something that produces its own light. Natural light sources include the following: Sun, lightening, glowing rocks (lava from volcanoes) and flames.
Some plants and animals give off light (glow worms and some deep sea fish).

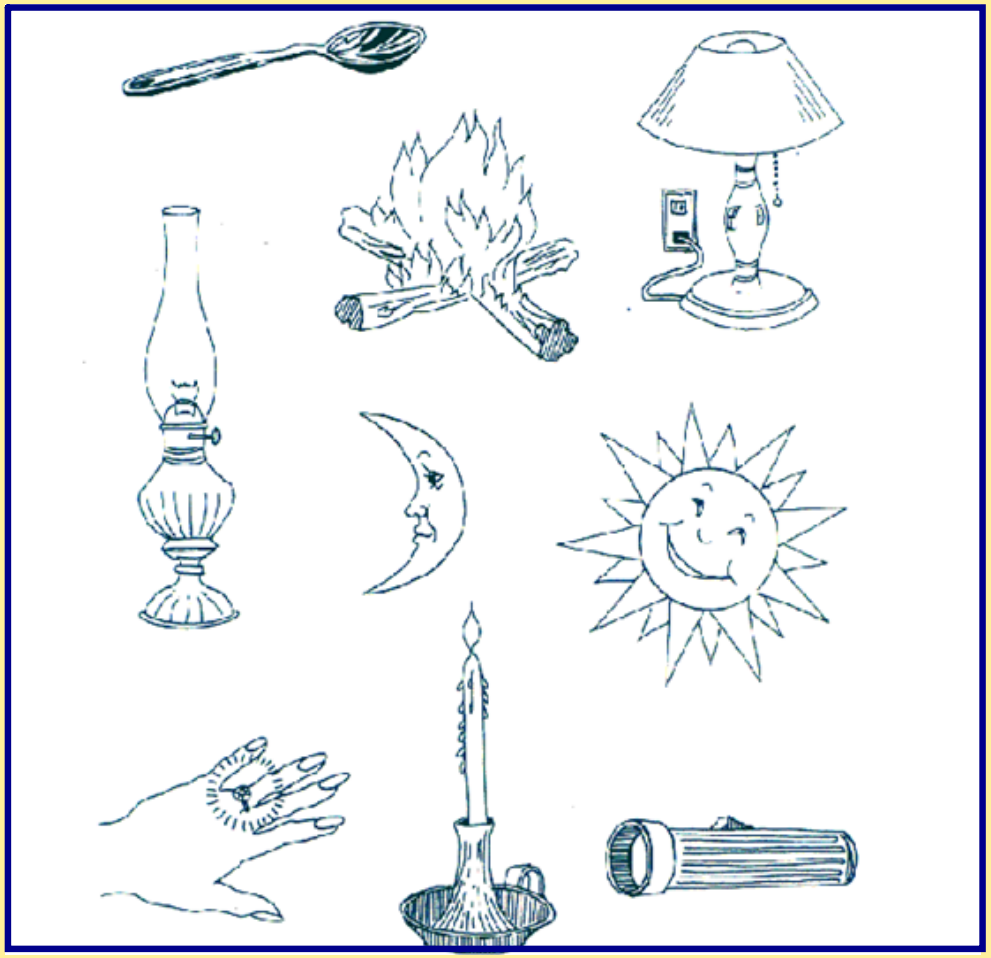
Man-made Light

Man-made light sources require some assistance for it to generate light. There are a lot of sources of man-made light, here are some of them: candles, light bulbs (in torches, around the house), televisions, fireworks.

Fact: did you know that the sun is so far away from Earth that it takes light over 8 minutes to get here. So the light you see at 12.oclock left the sun at approx 11.52!

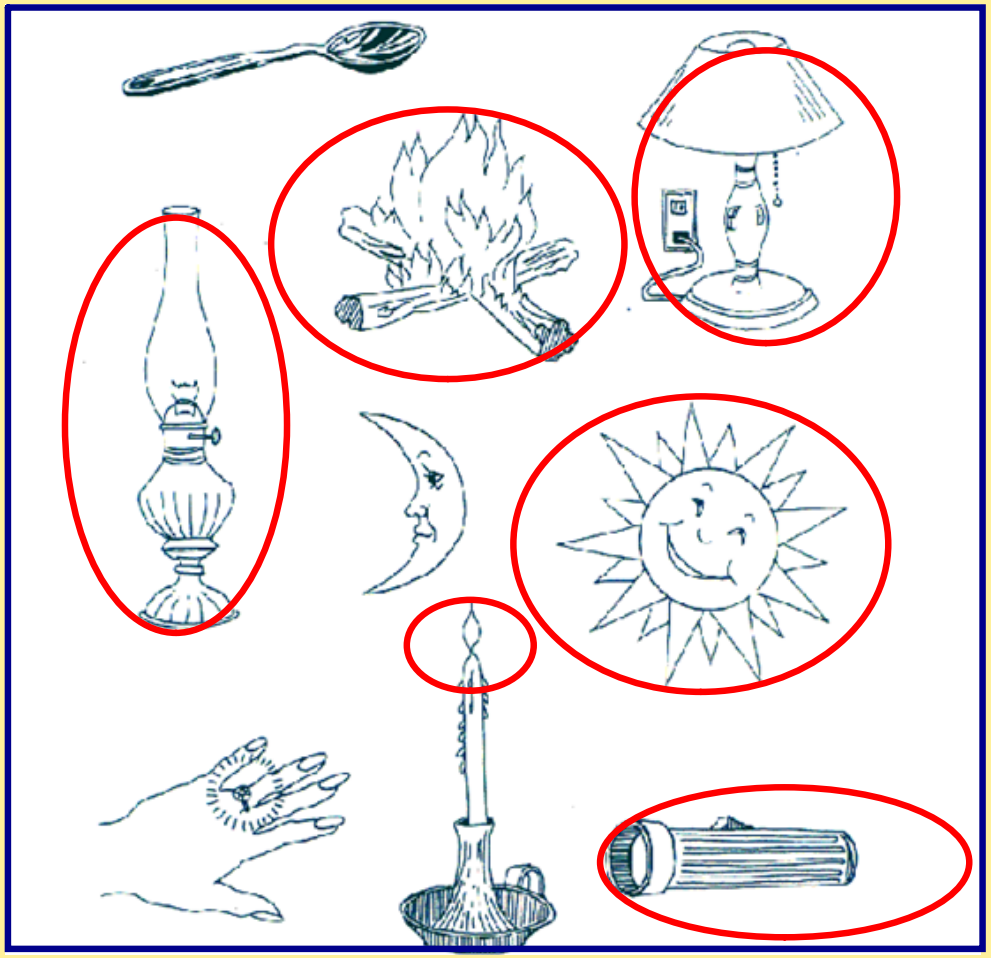


L.O. I can explore light sources and identify how light travels



Quick recap...
Can you circle the light sources (natural or man-made)?

L.O. I can explore light sources and identify how light travels



IMPORTANT: light sources PRODUCE light! Shiny things just reflect light!

Week Of: 11th May

L.O. To explore light sources and understand how light travels

Bronze

Write down the subheadings "Natural Light Sources" and "Man-made Light Sources" and define each.

Silver

Bronze + draw three examples (light source) for each heading.

Gold

Silver +
INVESTIGATE: is the moon is a light source? Why or why not?

Challenge

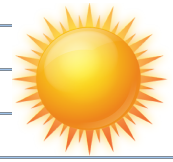
Research and describe what an "Aurora light source" is

Week of: 11th May

L.O. To explore light sources and understand how light travels

Natural light sources

Natural light sources are .....



sun

+ 2 more!

Man-made light sources

Man-made light sources are .....

light bulb

+ 2 more!

Is the moon a light source?

What is an "Aurora light source"?

Research!

L.O. I can explore light sources and identify how light travels

Y6 Science Experiment: Light Travels

Purpose: To discover how light travels and learn about the physics of light. Light behaves like a wave and a particle.

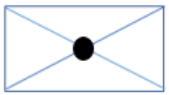
Materials

- 3 pieces of card
- small pieces of blue tac
- flashlight
- hole punch or scissors
- ruler
- paper for recording findings

Procedure

1. For each piece of card, use a ruler to draw lines connecting opposite corners of the card.

2. At the intersection of the two lines, use a hole puncher or scissors to create a hole in the center of the index cards.



3. Place a piece of blue tac on the bottom edge of each card to create a "stand" for the card. Place the cards so that they stand vertically and at an equal distance from each other. See Diagram A.
4. Place the flashlight at one end of the row of index cards and turn off the light in the room.
5. Arrange and rearrange the index cards so that light can be seen through all the holes.
6. Observe and record your observations.

Part 2: Investigation

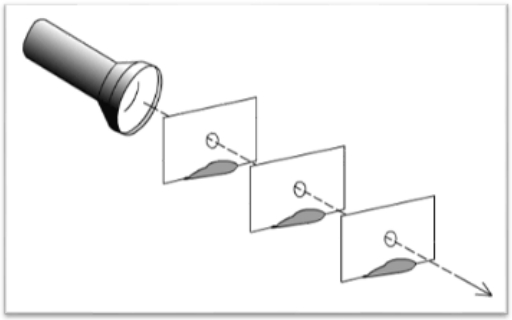


Diagram A

Conclusion and Questions

1. How can light be seen through all the index cards?
2. What does the experiment prove about the path light travels?
3. What would happen if the holes were smaller? What would happen if they were larger?

These instructions are available on the school website!

L.O. I can explore light sources and identify how light travels

http://www.bbc.co.uk/education/clips/zyntsbk

We will watch this video to reinforce our understanding.

You are now going to go back to your work and draw a diagram with some sentences explaining how light travels (you must include the word 'straight' in the sentence).

L.O. I can explore light sources and identify how light travels

https://content.lgfl.org.uk/secure/sos/activities/index.html?a=y6t4

Quick game

L.O. I can explore light sources and identify how light travels

What new knowledge have I gained?