



Light and Shadow

Amazing Fact

You can buy a torch which is 20,000 times brighter than a regular torch. It can be used to start fires, melt polystyrene and even fry eggs!

Challenge 1

Do you know how light travels?

Select the missing words from the torch below and fill in the gaps.



Light travels in _____ lines from a _____ of light, which bounces off an object. We can see the object because the _____ enters our eyes. Wood and cardboard are _____ objects, which light cannot travel through. _____ is a _____ material which allows light to pass through. Tissue paper is _____ which will let some light travel through. When an object blocks out the _____, a _____ is formed. Shadows are _____ at midday and _____ at the end of the day.

light longest opaque transparent shadow
translucent light source straight
glass shortest




Challenge 2


Sort the materials into 3 groups: opaque, transparent and translucent.


Transparent	Opaque	Translucent


paper 

ice cubes 

window 

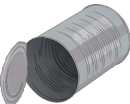
pencil 

sandwich bag 

glass bottle 

sticky tape 

chair 

tin can 

You could also try to find out:

- what the brightest light on Earth is;
- how far searchlights can cast their beams;
- how far your torch at home will shine;
- about the relationship between light and heat.

Light and Shadow Answers

Light travels in **straight** lines from a **source** of light, which bounces off an object. We can see the object because the **light** enters our eyes. Wood and cardboard are **opaque** objects, which light cannot travel through. **Glass** is a **transparent** material, which allows light to pass through. Tissue paper is **translucent**, which will let some light travel through. When an object blocks out the **light**, a **shadow** is formed. Shadows are **shortest** at midday and **longest** at the end of the day.