

# 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!

Do you know how light travels?

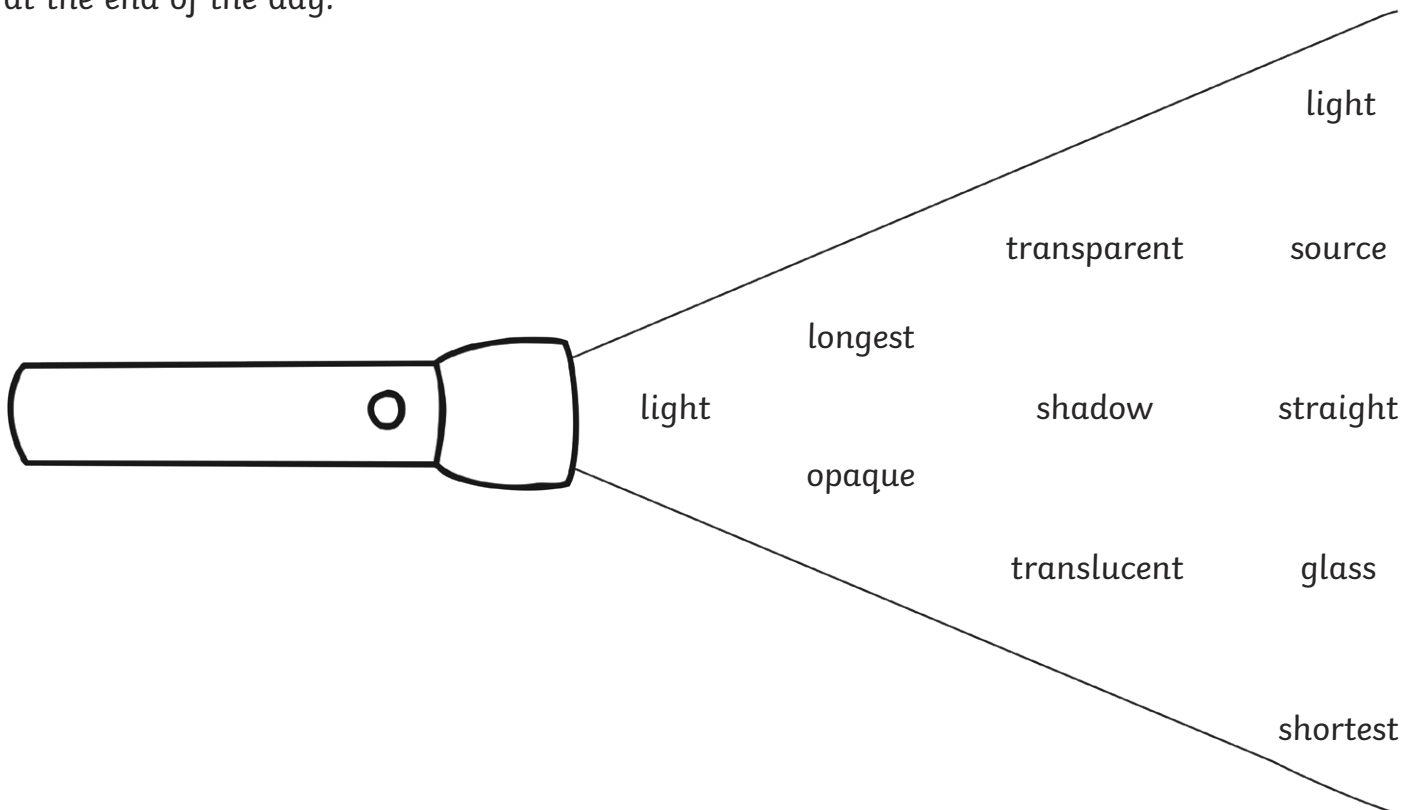
Select the missing words from the torch below and fill in the gaps.

## 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.

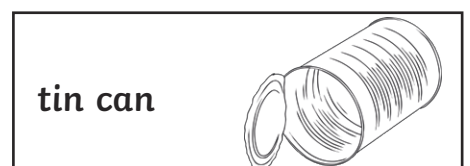
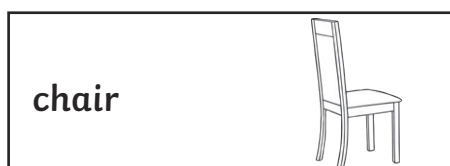
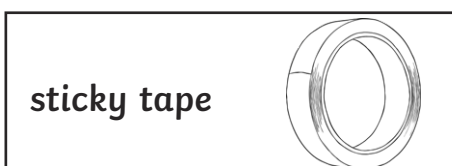
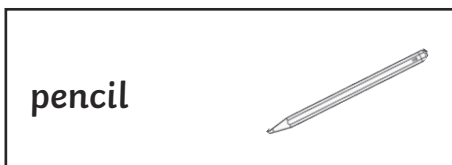


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## Challenge 2

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

| Transparent | Opaque | Translucent |
|-------------|--------|-------------|
|             |        |             |



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.