# **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 α			of light, which	
bounces off an object. We co	an see the object beco	ause the	e	enters our eyes.	
Wood and cardboard are	_ objects, which light cannot travel through.				
is	material which allows light				
to pass through. Tissue pap	which will let some light				
travel through. When an obj	ect blocks out the		, α		
is formed. Shadows are		_ at midday ar	nd		
at the end of the day.					
				light	
			transparen	nt source	
		longest			
0	light		shadow	straight	
		opaque			
			translucen	nt glass	
				shortest	



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#### 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.





### An Amazing Fact a Day

### Light and Shadow **Answers**

Light travels in	straight	_ lines from a	source	of	light, which be	ounces off an	
object. We can	see the object b	ecause theli	ight	enters ou	r eyes. Wood	and cardboard	are
<u>opaque</u> ob	jects, which ligh	it cannot travel th	rough	Glass	is a <u>tr</u>	ansparent	
material, which	allows light to pa	ass through. Tiss	ue paper is_	<u>transluce</u>	<u>nt</u> , which w	ill let some light	t
travel through.	When an object	blocks out the <b>li</b>	<b>ght</b> , a	shadow	is formed	d. Shadows are	<u> </u>
shortest	at middau an	d <b>longest</b>	at the	end of the	dau.		



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