



1st & 2nd Class Science



# Light

The human body has five senses. They are hearing, smell, taste, touch and sight. Let's have a quick reminder about sight before we have some fun!

We see using our eyes. But in order to see, we need light. **Light travel in straight lines** and when it hits an object, it is **reflected**, or bounced off, and enters our eye. The **light is turned into images by our brain!**

**01** How do you think the eye sees the books below? Which way do you think the light travels to in order for us to see the book? A or B?



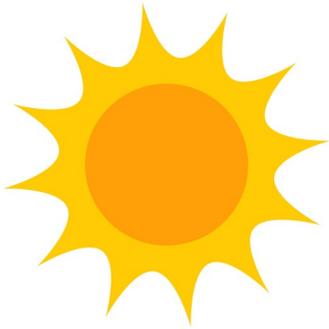


# Light

## Have you picked an answer yet?

The answer is Picture B

Picture A is incorrect. Light does not beam out of our eyes! You may have seen cartoons or movies where light shines from people's eye but this doesn't happen in real life.



Picture B is the correct answer. **Light from the sun shines on the books, the light then bounces off (reflects) the book into our eyes. Remember, light always travels in straight lines.**

This is why you can't see anything in a dark room. In order to see, we need some light to bounce off an object.



# Reflection Exercise

Some objects reflect light better than others. This is why when we are out walking or cycling, we wear a **high viz (Viz is short for visibility) jacket**. This is because the material reflects light better than our regular clothes.

But high viz clothes are only bright when light shines on them! Without light, there is nothing for the clothes to reflect back. Can you think of any other good reflectors?



**01** What is the name of big reflector in the sky that we see at night?

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**02** Do you know what this object is called?

← Hint, it is easier to see at night time.

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**03** List three other objects that are good reflectors?

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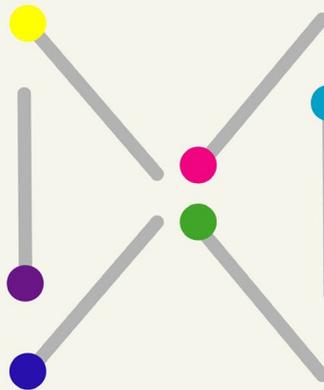
# Mirror Picture Exercise

One of the best objects for reflecting light is a mirror. As it has a smooth surface, it reflects lots of light back at us which is why we see such a clear image.

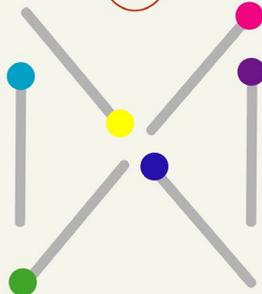
Because light travels in a straight line, when an object is reflected, it appears that the object is flipped around. Look in a mirror now and notice on the image is flipped.

Now, see if you can figure out what the image below would look like in a mirror! Remember it is flipped.

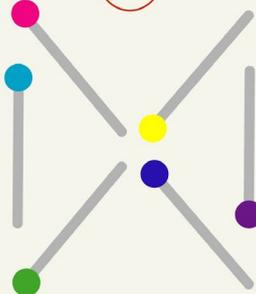
Find a mirror copy of the image, write in the number



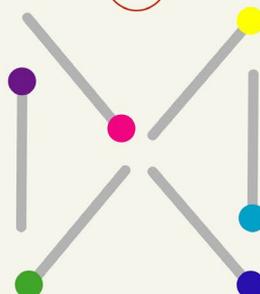
1



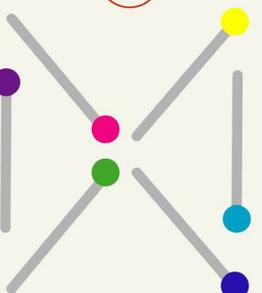
2



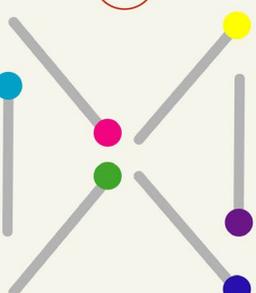
3



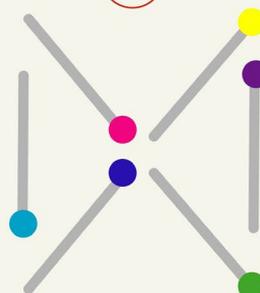
4



5



6





## Exercise Mirror Writing

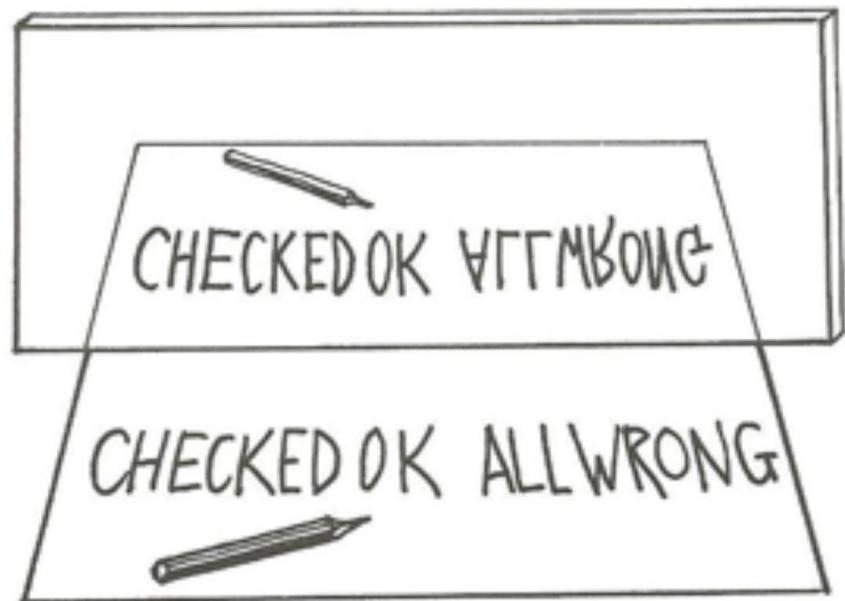
**What you will need:** Paper, pencil or pen, and a mirror.  
Ask for permission to use the mirror!

Now, let's try something a bit more tricky, mirror writing!

**Can you write a word that you can see exactly the same way in a mirror as on a piece paper?** In block letters on a page, write out these words side by side:

**CHECKED OK    ALL WRONG**

Now hold the page up in front of you as if you are reading it. Now, place the page in front of a mirror and what do you see?





## Exercise Mirror Writing

How weird is that? Because the letters in CHECKED OK are **the same upside down**, it still **reads correctly** in a mirror. Now let's try and write words in mirror writing that are correct when you use a mirror. To help, here is the MIRROR alphabet. **Start off trying to write the word mirror. Start with the purple W below followed by the I in green.**

M I R R O R  
W I B B U B

A L P H A B E T

Ϡ Ϣ ϣ Ϥ ϥ Ϧ ϧ Ϩ ϩ Ϫ ϫ Ϭ ϭ Ϯ ϯ ϰ ϱ ϲ ϳ ϴ ϵ ϶ Ϸ ϸ Ϲ Ϻ ϻ ϼ Ͻ Ͼ Ͽ Ͽ 1 2 3 4 5 6 7 8 9



**You might think mirror writing isn't very useful in real life but that isn't true.** Ambulances use mirror writing to alert drivers. When a driver sees the ambulance in the rearview mirror, they can clearly read the word ambulance. Clever!



**Reflection answers:** 1) The Moon! The moon is super bright as it reflects the light from the sun! 2) These are called cats eyes and look like this picture at night! They are named after cats eyes as they too shine bright at night time.

**Mirror Picture Exercise:** Picture 5