

# Science Quick Quiz

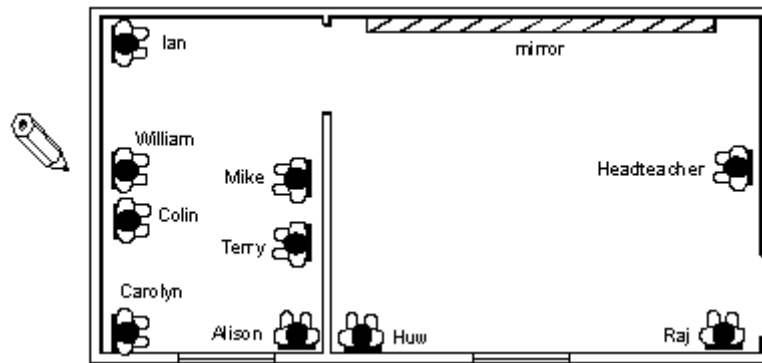
## Year 6 Light

Name: \_\_\_\_\_

Date: \_\_\_\_\_

### Q1. Sun and Light

This is a plan of a room.




There is a mirror on the wall.

The Headteacher can see only Huw, Raj and Ian, without looking in the mirror.


(a) Draw an arrow on the picture to show how light travels from Raj to the Headteacher.

1 mark

(b) Which **TWO** people can the Headteacher see **only** by reflection in the mirror.

 (i) .....

1 mark


 (ii) .....

1 mark

(c) Which **TWO** people can Colin see **only** reflected in the mirror?

 (i) .....

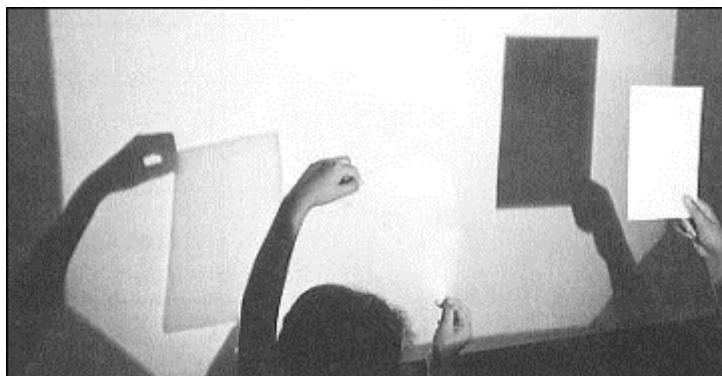
1 mark

 (ii) .....

1 mark

Q2. Shadows

(a) Two children hold some objects between a lamp and the wall.



They see that cardboard makes a **dark** shadow and a plastic sheet makes a **faint** shadow.

Explain why the shadows are different.

.....

.....

1 mark

(b) Tick **TWO** objects which make a faint shadow.



a wooden toy

a piece of tracing paper

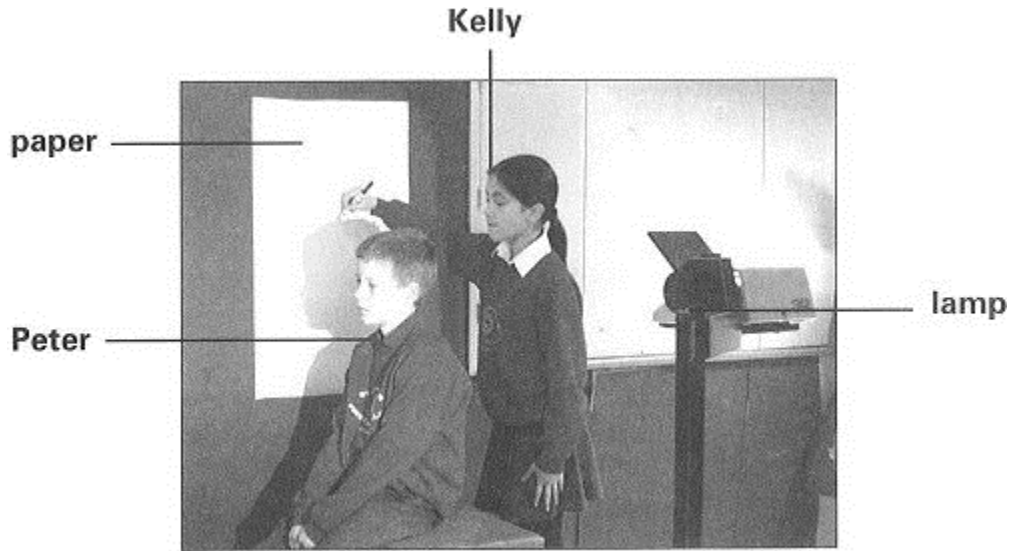
a book

a mirror

a clear plastic cup

1 mark

(c) Kelly is drawing around Peter's shadow.



How could Peter make the shadow of his head bigger?

Tick **TWO** boxes.



- |                          |                          |                            |                          |
|--------------------------|--------------------------|----------------------------|--------------------------|
| move closer to the paper | <input type="checkbox"/> | move closer to the lamp    | <input type="checkbox"/> |
| use a bigger lamp        | <input type="checkbox"/> | use a brighter lamp        | <input type="checkbox"/> |
| move the lamp closer     | <input type="checkbox"/> | move the lamp further away | <input type="checkbox"/> |

1 mark

(d) Explain how Peter's shadow is formed on the paper.

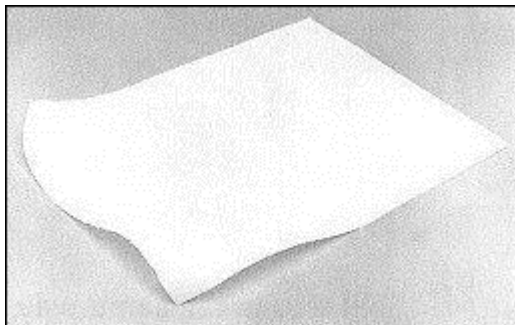


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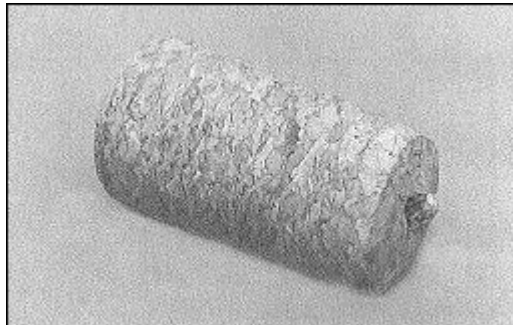
1 mark

Q3. Light

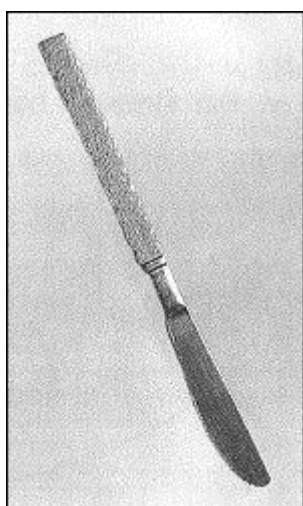
(a) Ian shines a torch onto some objects to see what happens to the light.



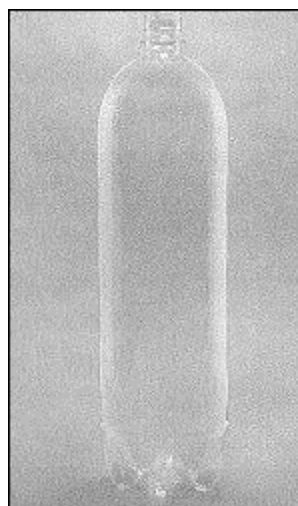
tracing paper



bottle cork



metal knife



clear plastic bottle

Write the name of **ONE** object to complete each of these sentences.

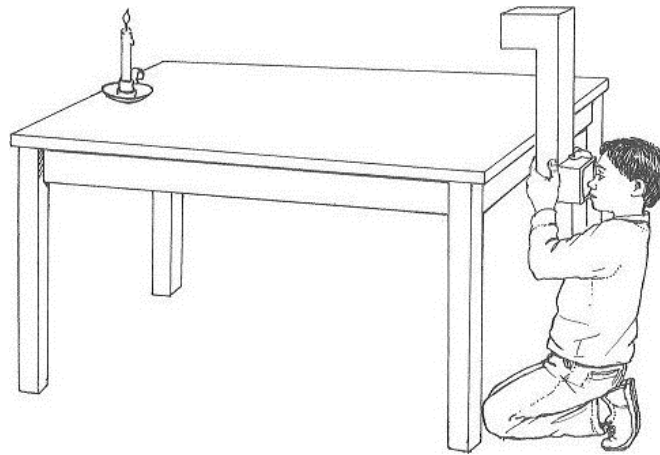
Only use the name of an object once.



- (i) The light went through the .....
- (ii) The light made the ..... look shiny.
- (iii) The light made the ..... make a dark shadow.

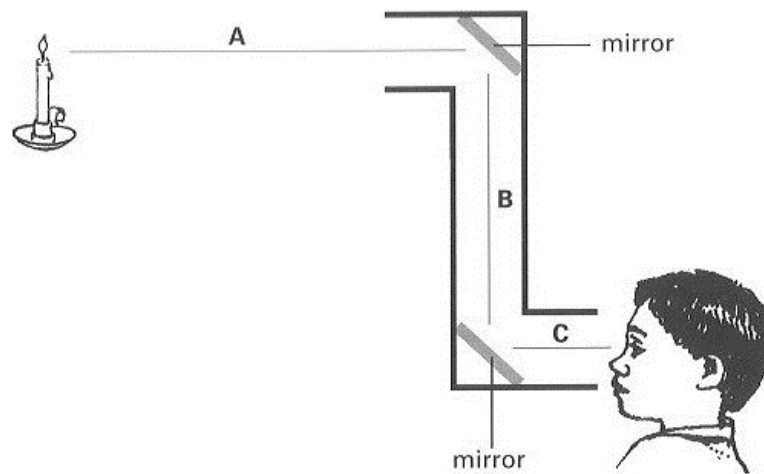
1 mark

(b) Ian has made a periscope with two mirrors and some card.



Periscopes let you see over the top of things.

Ian can see the candle by looking through the periscope.

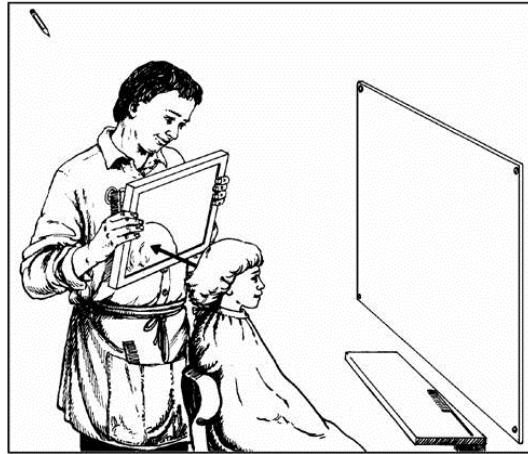


Show the directions light travels to allow him to see the candle.

Draw **ONE** arrowhead on **EACH** of the lines **A**, **B** and **C**.

1 mark

Q4. Light



- (a) The girl is looking at the large mirror in front of her. She can see the reflection of the back of her head. The hairdresser is holding a small mirror.

An arrow has been drawn to show the direction of some light.

Draw **TWO** more **arrows** to show how the girl can see the reflection of the back of her head.

2 marks



- (b) The scissors look shiny.

Why do scissors look shiny? Tick **ONE** box.



Light passes through them.

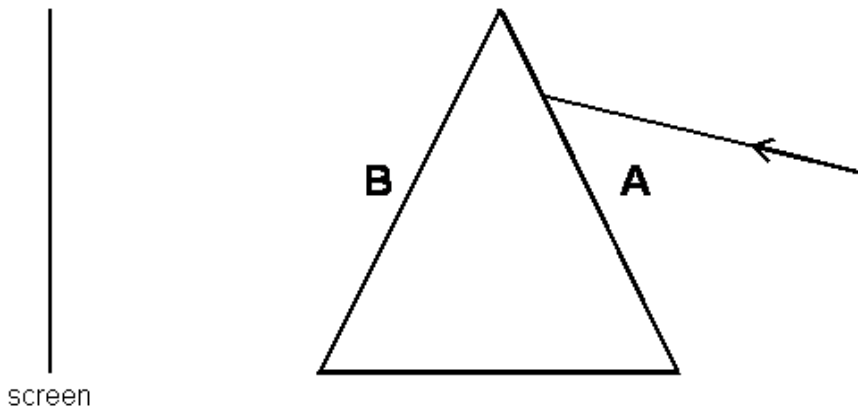
They are sharp.

They reflect light.

They give out light.

1 mark

Q5. (a) The diagram shows a beam of white light shining onto a glass prism.



(i) Draw on the diagram what happens to the beam of light as it passes from surface A to surface B.

1 mark

(ii) Write a description of what happens.

.....  
.....

1 mark

(b) (i) Draw on the diagram what happens to the beam of light as it passes from the glass prism into the air and beyond B.

1 mark

(ii) Write a description of what can be seen on the screen when the beam of light passes through the prism.

.....  
.....

1 mark

Q6. (a) The diagrams below show a kingfisher looking at a fish under the water.

Light changes direction as it travel from water into air.

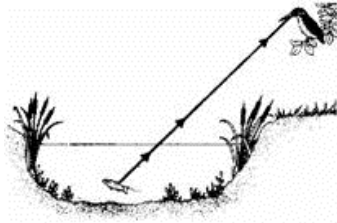
What is this effect called?

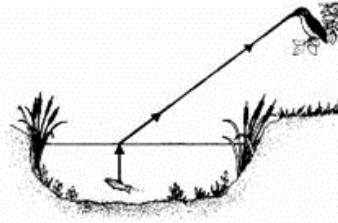
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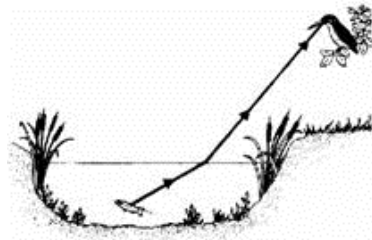
1 mark

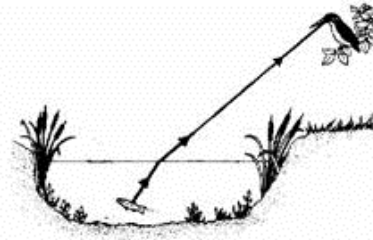
(b) Which diagram correctly shows how a ray of light from the fish reaches the kingfisher?

Tick **ONE** box



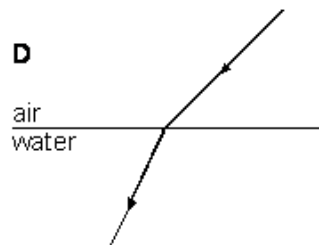
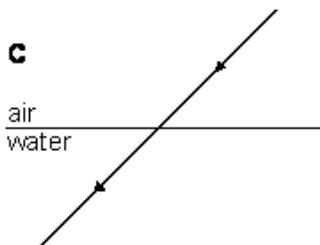
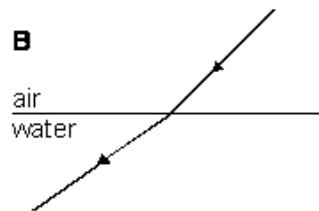
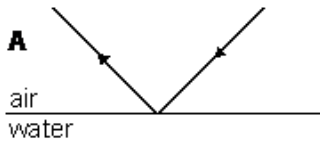







1 mark

(c) Draw a circle around the diagram which shows how a light ray travels from air into water.



1 mark



Assessment Summary	
Total Mark	/21
Below Expectations Below 8 marks	
Expectations Between 8-15 marks	
Above Expectations Above 15 marks	