Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

6058217083

SCIENCE **0097/01**

Paper 1 **April 2025**

35 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You should show all your working in the booklet.
- You may use a calculator.

INFORMATION

- The total mark for this paper is 40.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **20** pages. Any blank pages are indicated.

1 A virus passes from one host to another and causes disease.

(a) Name something else that passes from one host to another and causes disease.

.....[1]

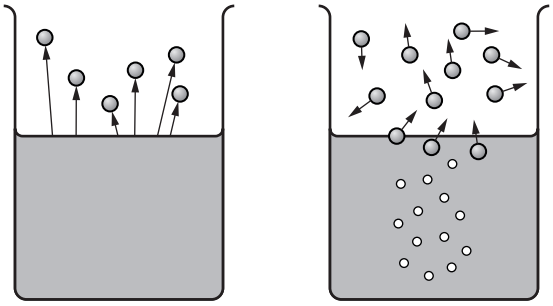
(b) Some viruses enter the body through the respiratory system.

Describe how the respiratory system helps prevent viruses entering the body.

.....

.....[1]

2 Chen draws a particle model to show evaporation and boiling.



evaporation boiling

(a) Evaporation only happens at the surface of a liquid.

Describe how the particle model shows evaporation only happens at the surface of a liquid.

.....

..... [1]

(b) Evaporation only happens at the surface of a liquid.

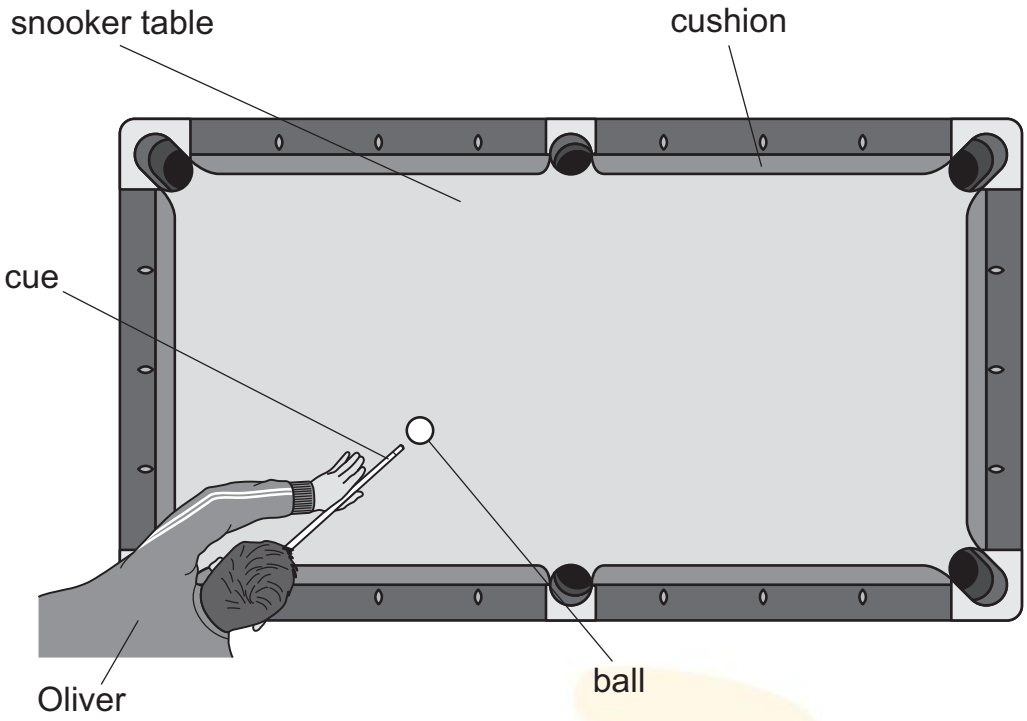
Boiling happens throughout a liquid.

Describe how the particle model shows **one other** difference between evaporation and boiling.

.....

..... [1]

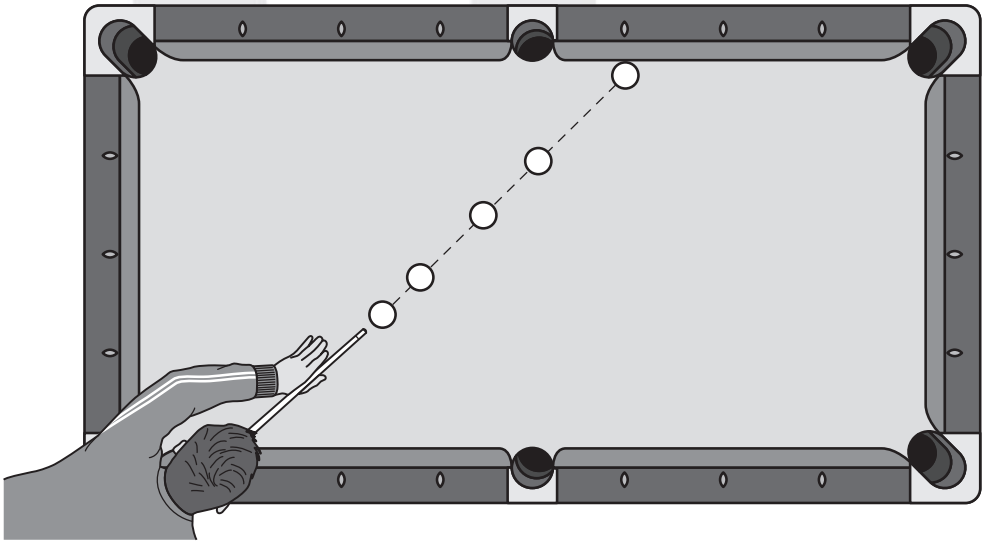
3 Oliver uses a snooker table to model some properties of light.



(a) Oliver hits the ball with the cue.

The ball moves in a straight line towards the cushion.

Complete the diagram below to show what happens after the ball hits the cushion.



[1]

(b) The model shows that light travels in straight lines.

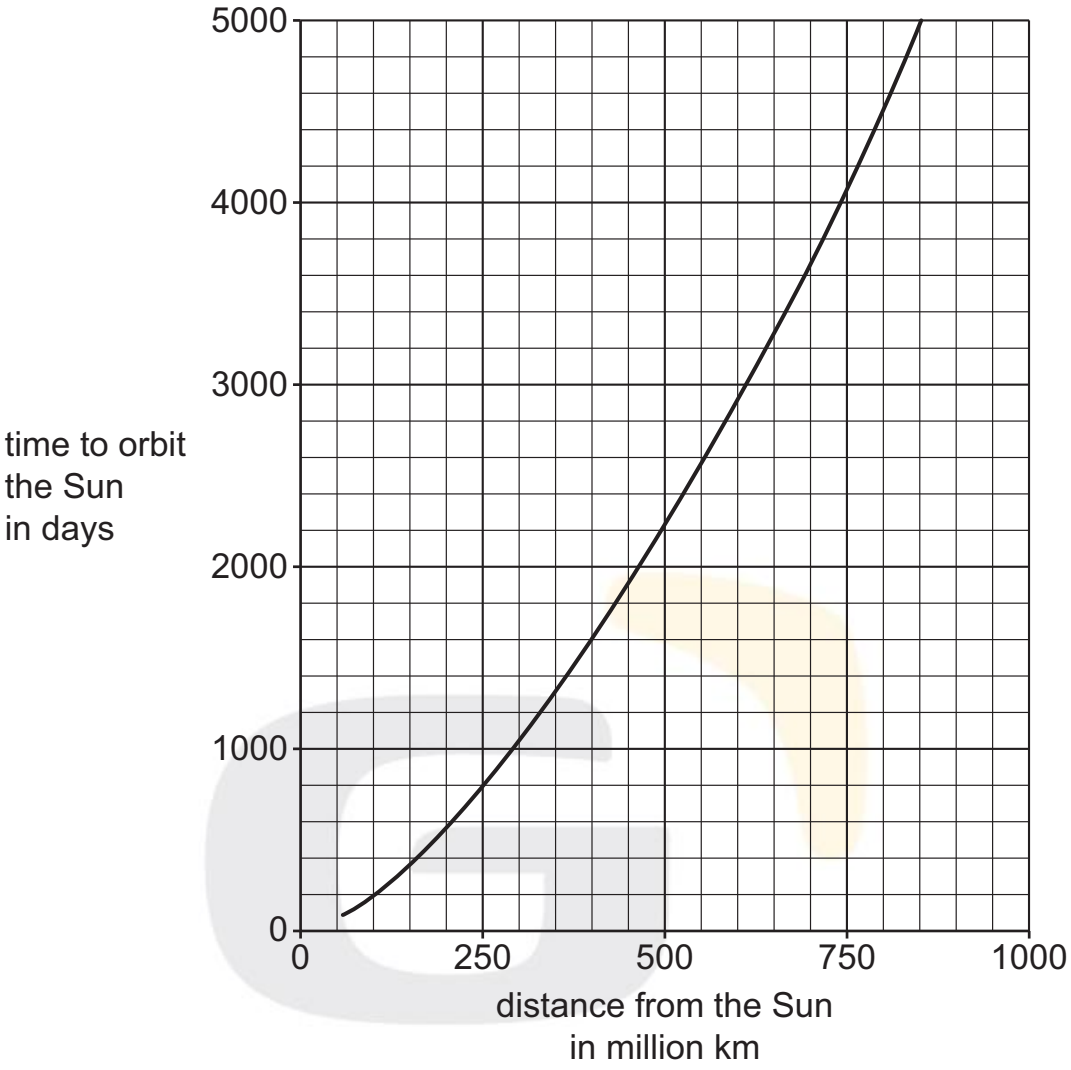
Which **other** property of light does the model show when the ball hits the cushion?

.....

[1]

4 Astronomers discover asteroid **X** orbiting the Sun.

Asteroid **X** orbits the Sun every 1800 days.



Use the graph to suggest the distance of asteroid **X** from the Sun.

distance of asteroid **X** from the Sun = ... million km [1]

5 Physical changes take place during puberty.

Write down **two** physical changes that take place in **females**.

1 .....

2 .....

[2]

6 The table shows some properties of four gases.

gas	colourless	easy to compress	found in clean air	has an odour
carbon dioxide	yes	yes	yes	no
chlorine	no	yes	no	yes
nitrogen	yes	yes	yes	no
oxygen	yes	yes	yes	no

(a) Which property is true for **all four** gases?

Circle the correct answer.

colourless

easy to compress

found in clean air

has an odour

[1]

(b) There are other properties of all gases that are **not** shown in the table.

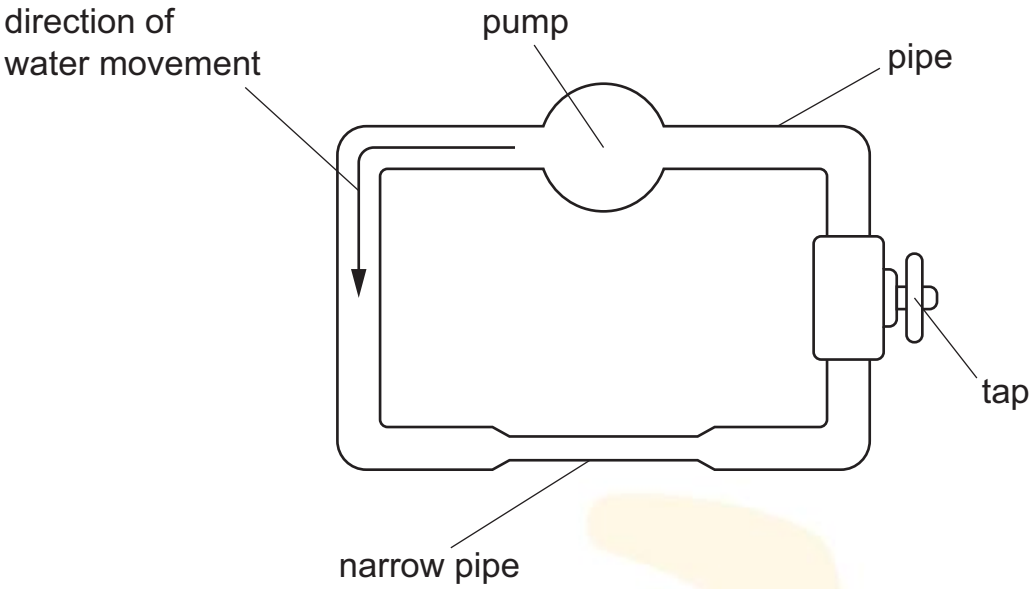
Write down **one** of these **other** properties.

..... [1]

7 The diagram shows water moving through pipes.

The diagram contains a pump, a tap, pipes and a narrow pipe.

The pump pushes water through the pipes.



The diagram is a model of an electrical circuit.

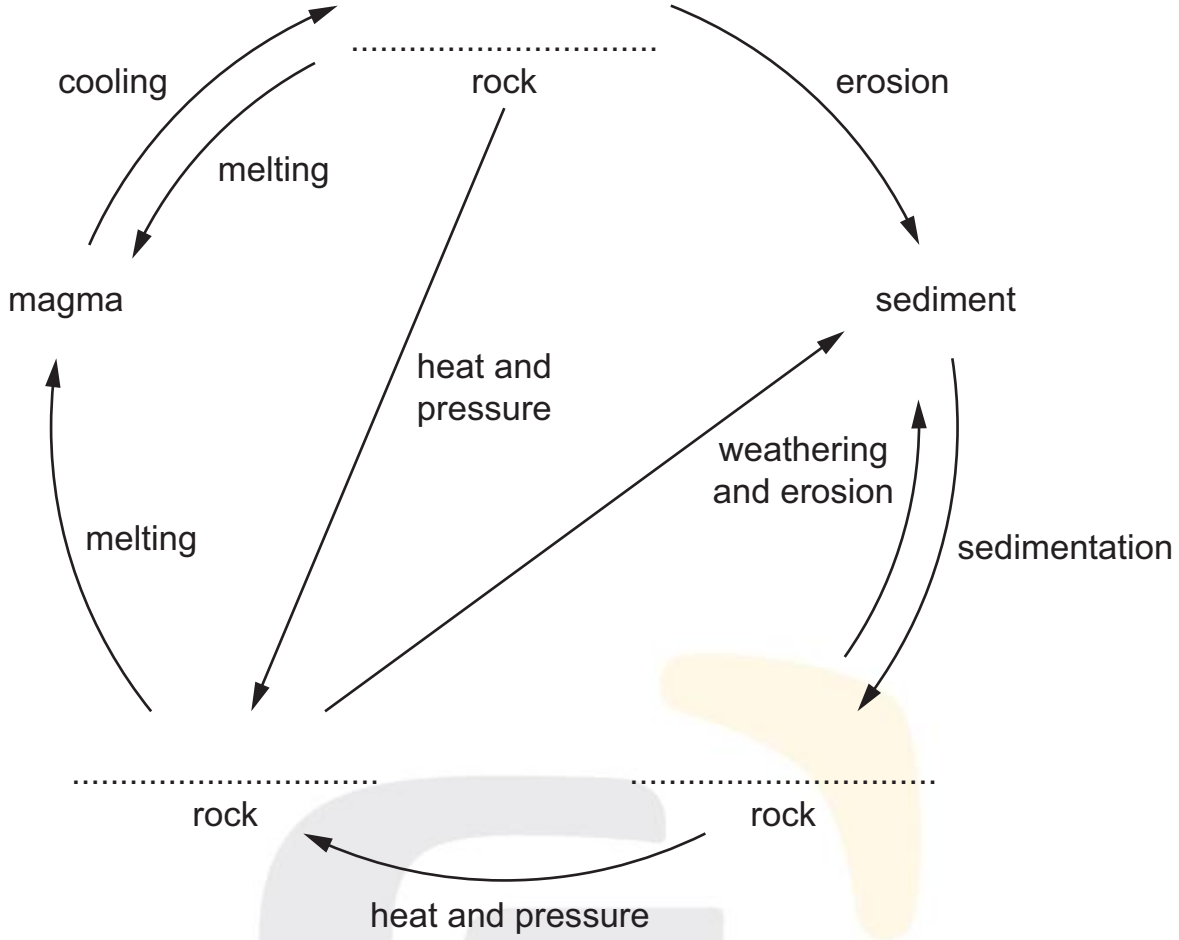
Complete the table to show which electrical component the pipes, narrow pipe, pump and tap are modelling.

Two have been done for you.

diagram	electrical component
pipes	wires
narrow pipe	lamp
pump	
tap	

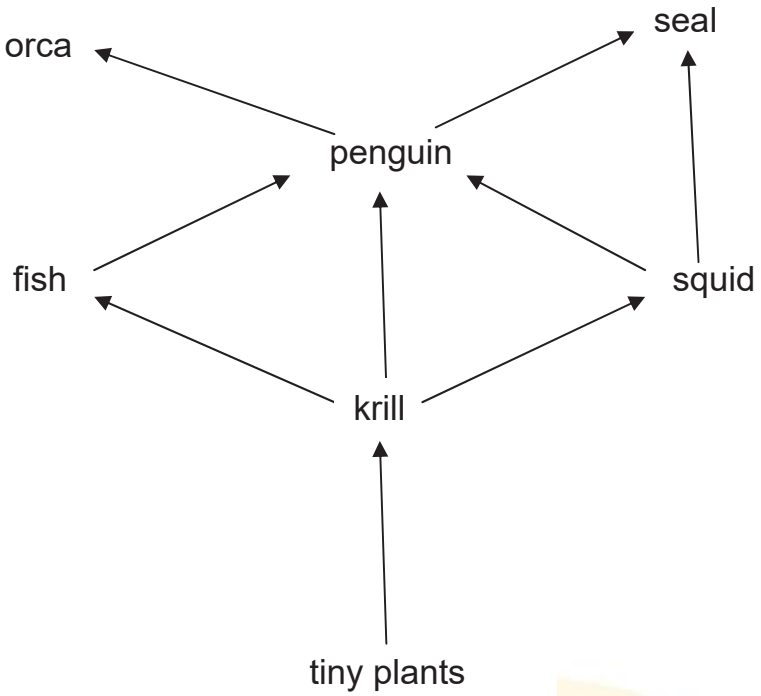
[2]

8 Look at the diagram of the rock cycle.



Complete the diagram by writing in the names of the **three** types of rock. [2]

9 Look at the food web.



(a) Name **all** the animals in this food web that **only** eat krill.

.....

[1]

(b) Name **one** animal in this food web that is a predator **and** a prey.

.....

[1]

(c) Write down the energy source for this food web.

.....

[1]

(d) The tiny plants absorb a toxic substance in the water.

Suggest why this may be harmful to the penguins.

.....

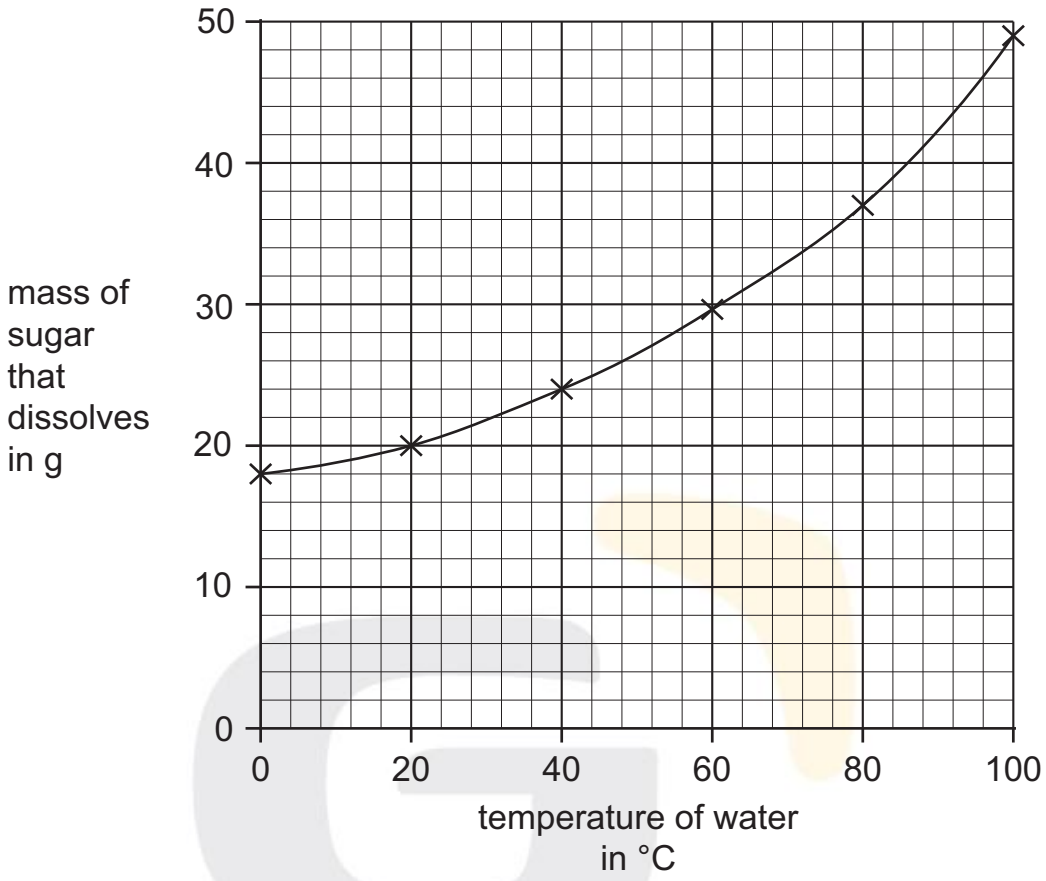
.....

[1]

10 Priya dissolves sugar in water at different temperatures.

She measures the mass of sugar that dissolves at each temperature.

The graph shows the mass of sugar that dissolves at each temperature.



(a) Priya writes a sentence to describe the pattern in her results.

Complete her sentence.

As the temperature of water increases, the .....

..... . [1]

(b) When sugar dissolves in water it forms a sugar solution.

Describe what happens to the particles in the sugar solution as the temperature increases.

.....

..... [1]

(c) Tick (✓) **two true** statements about dissolving sugar in water.

a gas is produced ☐

it is a physical change ☐

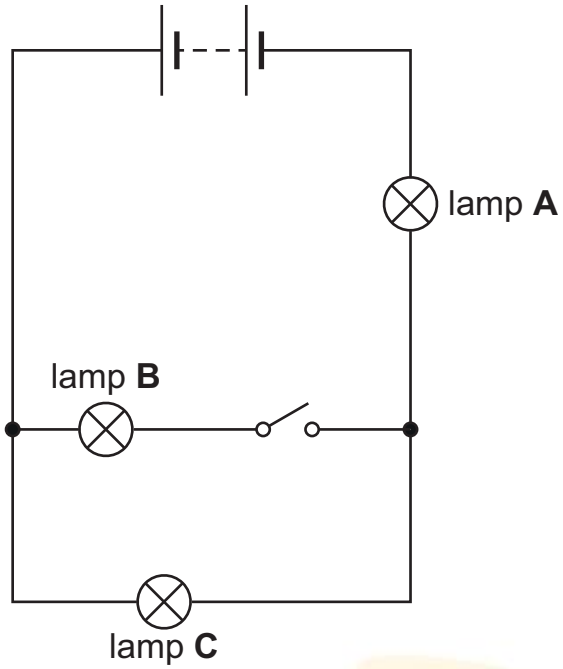
it is reversible ☐

sugar evaporates ☐

sugar melts in the water ☐

[2]

11 Youssef makes this electrical circuit.



(a) Which **two** lamps light up?

lamp ..... and lamp ..... [1]

(b) Complete the sentences about this circuit.

It is a **series** circuit when the switch is **open** because .....

.....

.....

It is a **parallel** circuit when the switch is **closed** because .....

.....

.....

[2]

12 This question is about animal fossils.

Tick (✓) the correct box to show if the sentence is true or false.

sentence	true	false
Fossils are found in all rock types.	☐	☐
Layers of sand cover a dead animal when a fossil forms.	☐	☐
The soft parts of an animal form a fossil.	☐	☐
The fossil is seen when the rocks around the fossil erode.	☐	☐

[2]

13 Jamila investigates how exercise affects the number of breaths she takes in.

Jamila:

- sits still for five minutes
- measures the number of breaths she takes in for one minute
- runs very fast for two minutes
- measures the number of breaths she takes in for one minute.

(a) What is the **dependent variable** in this investigation?

..... [1]

(b) Complete the prediction for this investigation.

Our breathing rate ..... during exercise so that more

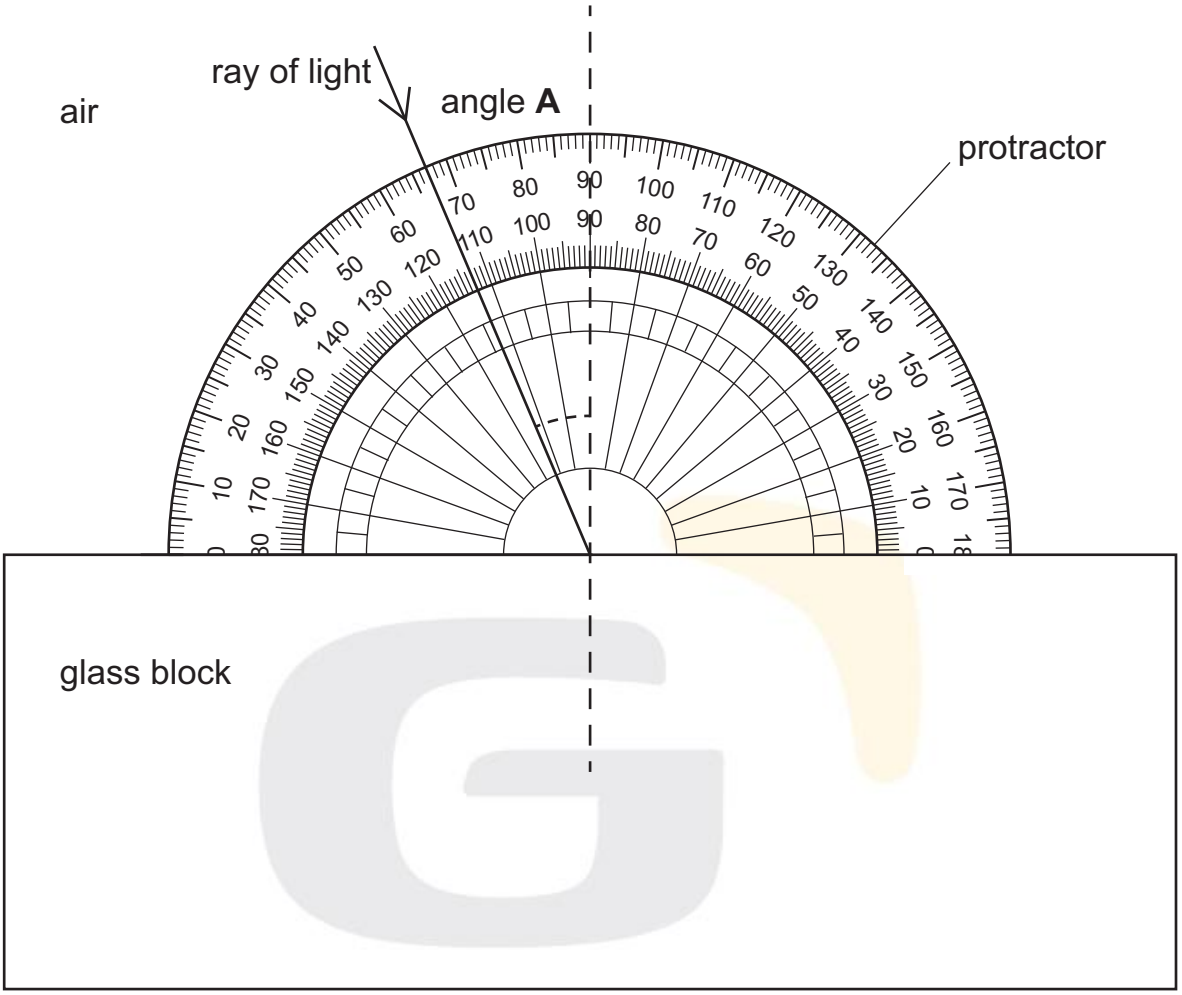
..... moves from the lungs into the ..... .

[2]

14 The diagram shows a ray of light travelling in air.

The ray of light is travelling towards a glass block.

There is a protractor against the surface of the block.



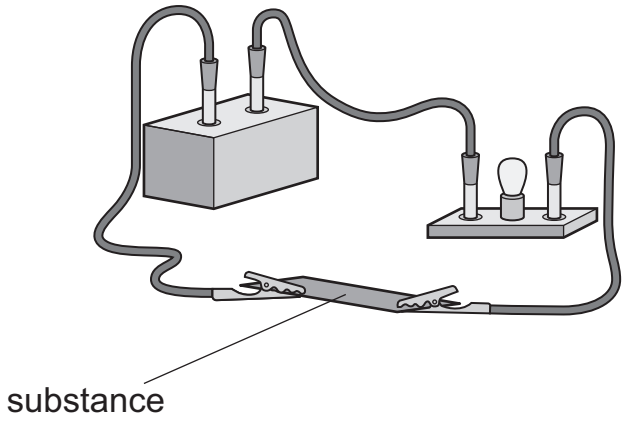
(a) Write down the value of angle **A**.

.....° [1]

(b) Draw the ray of light as it passes through the glass block. [1]

15 Mia investigates **one** property of different substances.

She uses this equipment.



Mia puts each substance in the position shown in the diagram.

She observes what happens to the equipment.

(a) Write down the name of the property she investigates.

..... [1]

(b) Describe how this equipment shows a substance has this property.

.....

..... [1]

(c) Mia says:

'The substance has <u>not</u> been changed chemically.

There is <u>no</u> chemical reaction.'

Mia is correct.

Describe why Mia is correct.

.....

..... [1]

16 This question is about mass and weight.

Tick (✓) the **correct** sentence.

Mass is a force. ☐

Weight is the amount of matter in a solid, liquid or gas. ☐

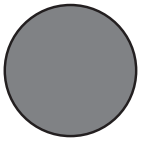
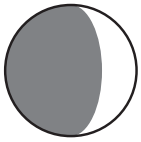
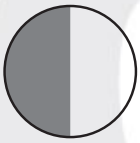
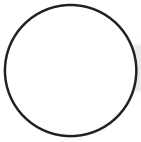
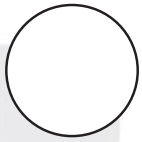
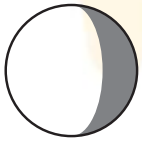
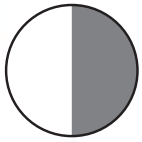
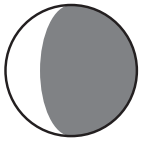
Mass is measured in kilograms. ☐

Weight is measured in grams. ☐

[1]

17 Safia lives in the Northern Hemisphere and observes the phases of the Moon.

She draws diagrams to show the phases of the Moon.

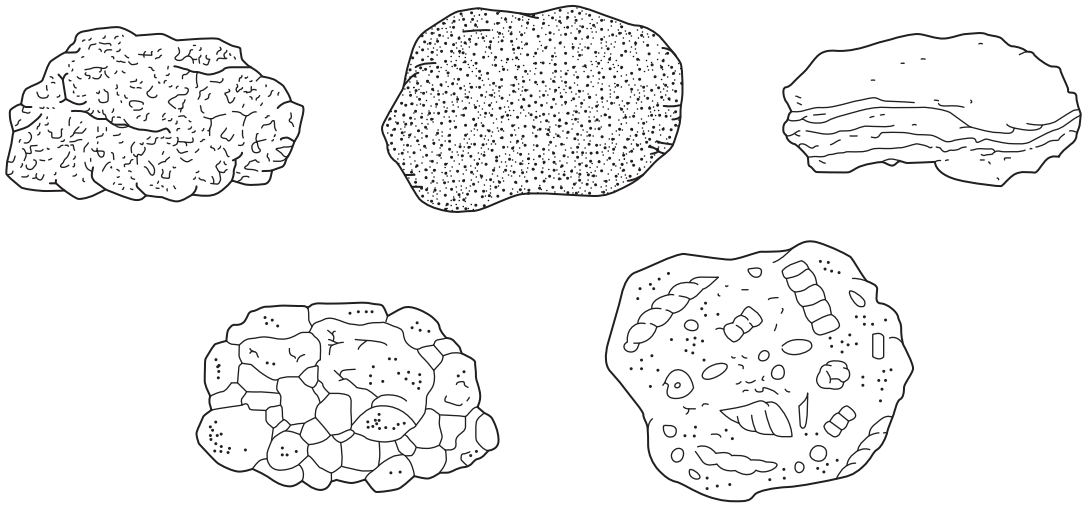
							
new moon	waxing crescent	first quarter	waxing gibbous	full moon	waning gibbous	third quarter	waning crescent

The diagram for a **waxing gibbous** moon is **not** shown.

Complete the diagram by drawing a waxing gibbous moon. [1]

18 Ahmed observes five rocks.

He designs a key to identify each type of rock using his observations.



Suggest **two** questions he uses in his key to identify the types of rock.

question 1 .....

.....

question 2 .....

.....

[2]

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