

Cambridge Primary Checkpoint

CANDIDATE
NAME

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CENTRE
NUMBER

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NUMBER

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SCIENCE

0097/02

Paper 2

October 2025

35 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

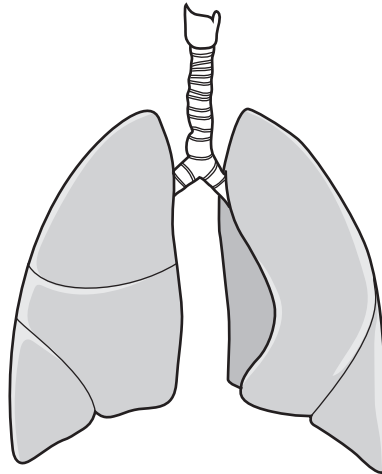
- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction 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 Look at the model of human lungs.



(a) Complete the sentences about the lungs.

The lungs are part of the human system.

Inside the lungs a gas moves out of the air into the blood.

The name of this gas is

[2]

(b) The lungs contain mucus.

Explain why the lungs contain mucus.

.....
..... [1]

2 This question is about liquids and gases.

(a) Complete the sentence.

Choose from the list.

melting

product

reaction

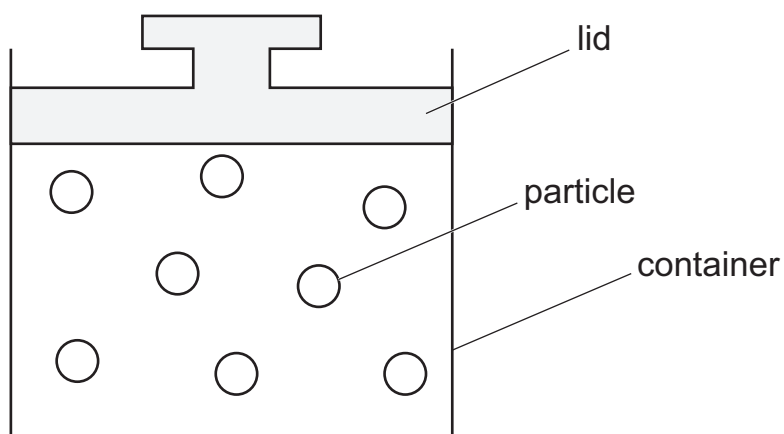
state

When a liquid is heated it becomes a gas.

This is a change of

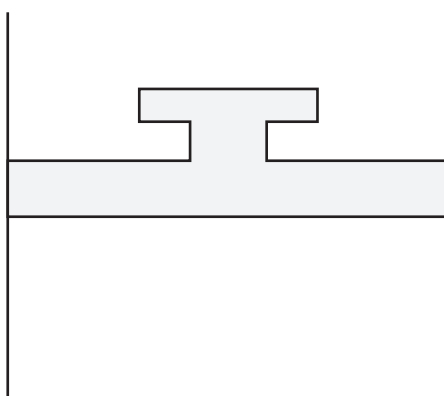
[1]

(b) The diagram shows the particles of a gas in a container with a lid.



The lid of the container is pushed downwards.

Complete the diagram to show what happens to the particles of the gas.

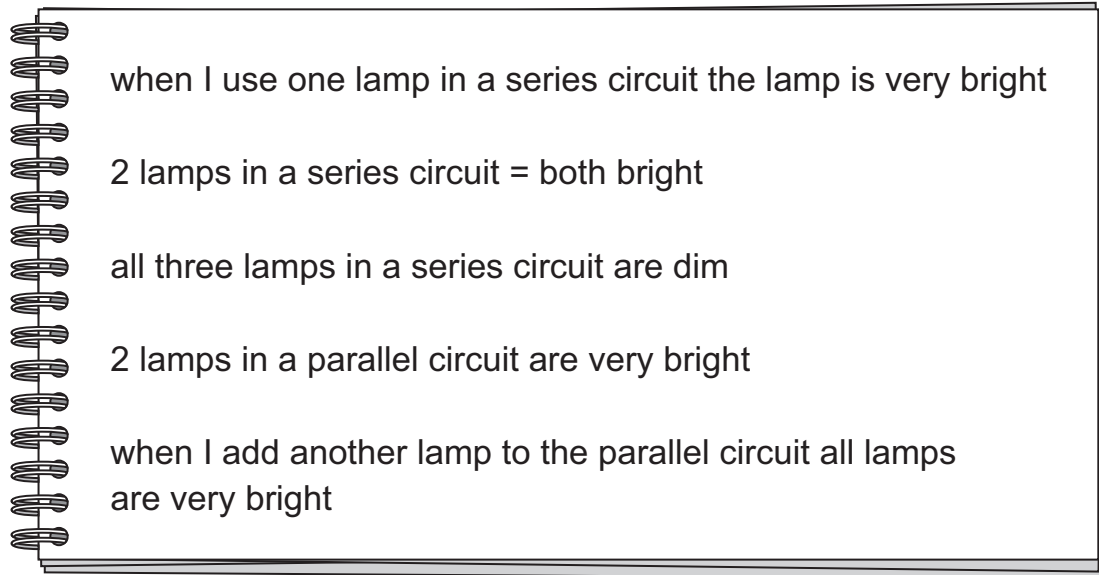


[2]

3 Pierre has a series electrical circuit and a parallel electrical circuit.

He compares the brightness of lamps in these electrical circuits.

Look at his results.



(a) Complete the table using his results.

type of circuit	number of lamps	brightness of lamps
series	1	very bright
series		
series		
parallel		
parallel	3	very bright

[2]

(b) Pierre starts to write sentences about a **risk** in his investigation.

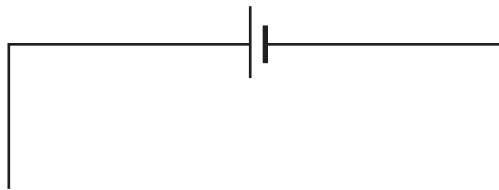
Complete the sentences.

I must be careful **not** to touch the

This is because they get very and I may burn my hand.

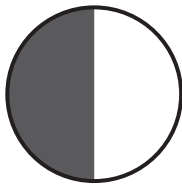
[1]

(c) Complete the circuit diagram to show **3** lamps in a parallel circuit.

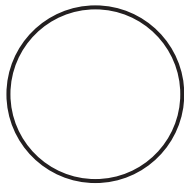


[1]

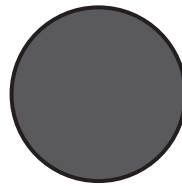
4 The Moon has different phases.



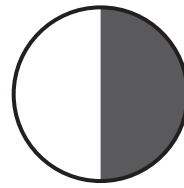
A



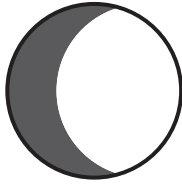
B



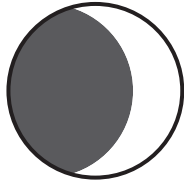
C



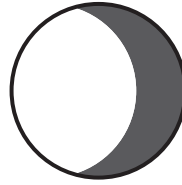
D



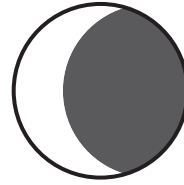
E



F



G



H

(a) Circle the name of phase **B**.

full moon

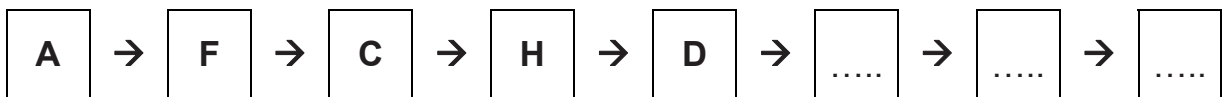
new moon

waning gibbous

waxing crescent

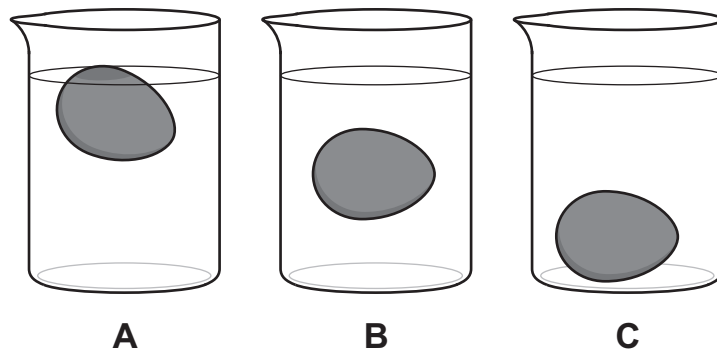
[1]

(b) Complete the boxes to show the correct order of the phases of the Moon.



[1]

5 Anastasia puts three eggs into beakers of water.



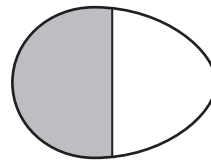
(a) Older eggs contain more air.

Look at the model of the inside of egg **B**.

key

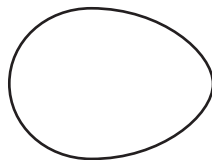
■ liquid

□ air

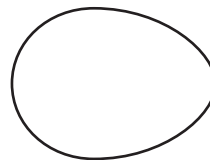


B

Complete the model for egg **A** and egg **C**.



A



C

[2]

(b) The eggs float or sink because they have different masses.

Write down **one other** thing that makes objects float or sink.

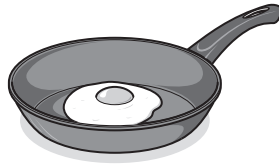
..... [1]

6 Mike draws some pictures.

Tick (✓) the picture that shows a physical change.



burning wood

☐

an egg cooking

☐

melting ice

☐

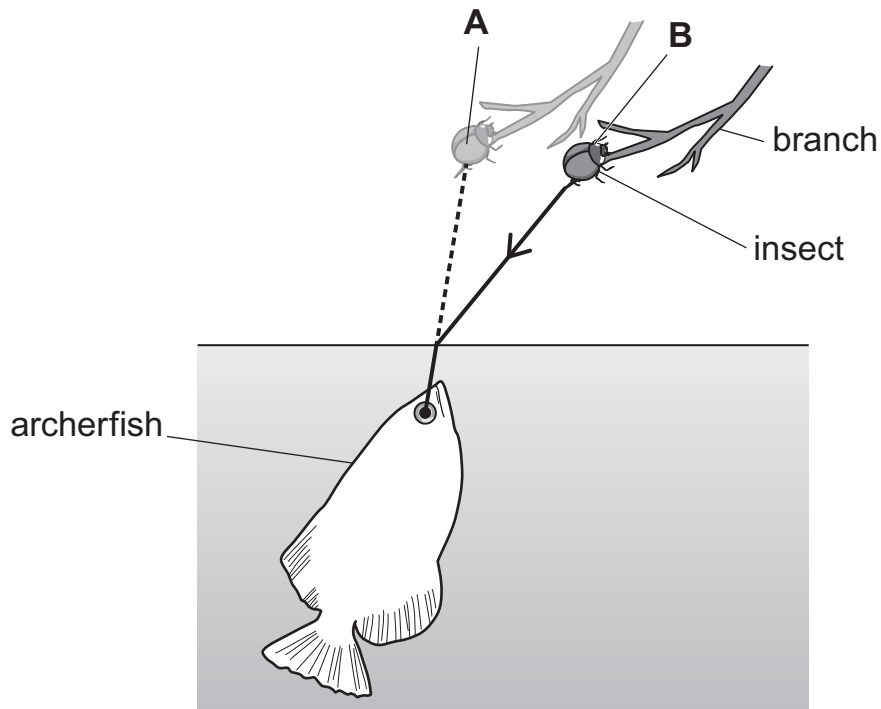
decaying fruit

☐

[1]

7 An archerfish looks at an insect on a branch.

Look at the ray diagram.



When the archerfish looks from the water to the air:

- the insect appears to be at **A**
- the insect is really at **B**.

Explain why.

Use ideas about properties of light rays.

.....

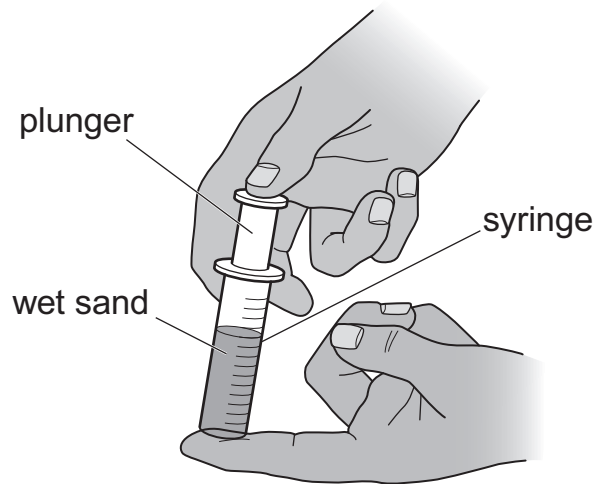
.....

..... [2]

8 Gabriella investigates the formation of sedimentary rocks.

She:

- fills a syringe with 10 g of wet sand
- blocks the end of the syringe with her finger
- pushes the plunger down as hard as possible



- removes her finger and pushes out the squashed sand
- leaves the squashed sand to dry for 24 hours to form a model rock
- hits the model rock with a spoon to see if it stays in one piece.

Gabriella repeats the investigation with different materials in the syringe.

She replaces the wet sand with 10 g of wet clay and then 10 g of wet mud.

(a) Complete the sentences about this investigation.

One has been done for you.

The dependent variable is how easily the model rock breaks.

The **independent variable** is

The **control variable** is

[2]

(b) Gabriella uses a pushing force to squash the sediment particles together.

Circle **one** process needed to change sedimentary rock into metamorphic rock.

erosion

freezing

heating

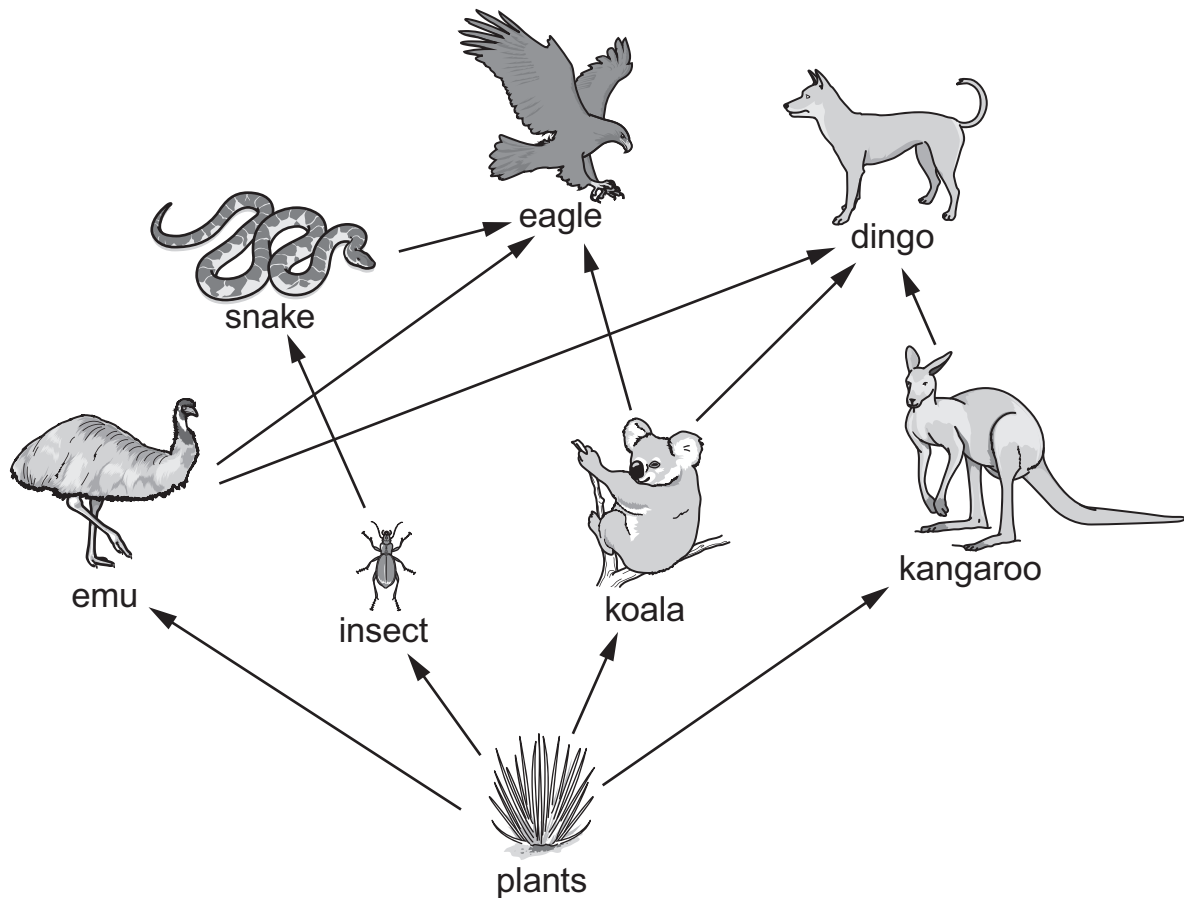
sedimentation

[1]

(c) Describe what happens to metamorphic rock to change it into igneous rock.

.....
..... [1]

9 The picture shows a food web.



(a) Write down **one** food chain from this food web.

Include:

- the koala
- **two other** living things.

..... [1]

(b) Circle **two** words that describe the kangaroo in this food web.

carnivore

consumer

herbivore

omnivore

predator

producer

[2]

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

..... [1]

10 Different soils have different soil colours.

soil colour	composition	property
black	lots of organic content	smells bad
brown	organic content and sand	traps air and water
red	iron and sand	poisons some plants
yellow	mostly sand	water leaves the soil
grey	mostly clay	water remains in soil

(a) Write down the best soil colour for plants that need air and water.

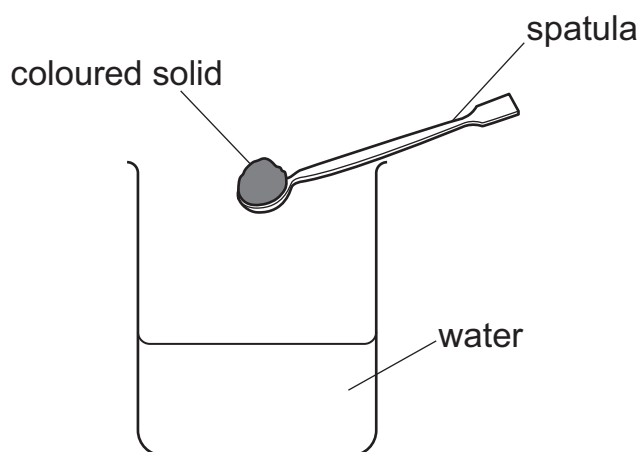
..... [1]

(b) Yellow soil contains mostly sand.

Explain why the water leaves this soil easily.

.....
 [1]

11 The diagram shows a beaker of water and a spatula holding a coloured solid.



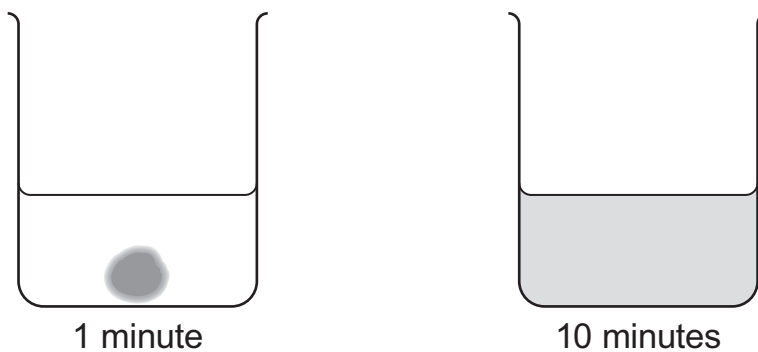
Ahmed adds the coloured solid to a beaker of water.

The solid disappears and the water changes colour.

(a) Write down the name of this process.

..... [1]

(b) The diagram shows his observations at 1 minute and at 10 minutes.



Explain his observation at 10 minutes.

Use ideas about particles in your answer.

.....
..... [1]

(c) Ahmed repeats his experiment using water at a higher temperature.

The solid disappears faster.

Explain why.

Use ideas about particles in your answer.

.....
..... [1]

(d) Ahmed uses a thermometer to measure the temperature of the water.

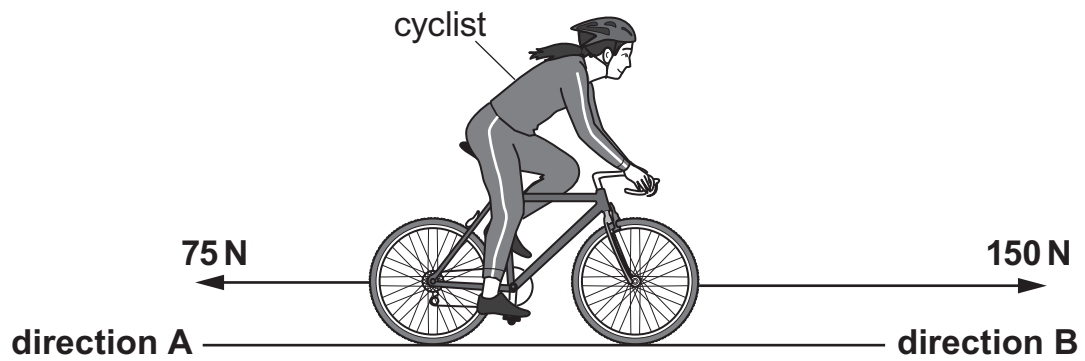
The diagram shows part of the thermometer.



What is the temperature on the thermometer?

..... °C [1]

12 Jamila draws a force diagram showing a cyclist.



(a) Explain what is happening to the cyclist in the force diagram.

Use the **numbers** and the **letters** on the diagram to help you.

.....

.....

.....

..... [2]

(b) The numbers in the diagram are 75 N and 150 N.

Jamila knows she is 45 kg.

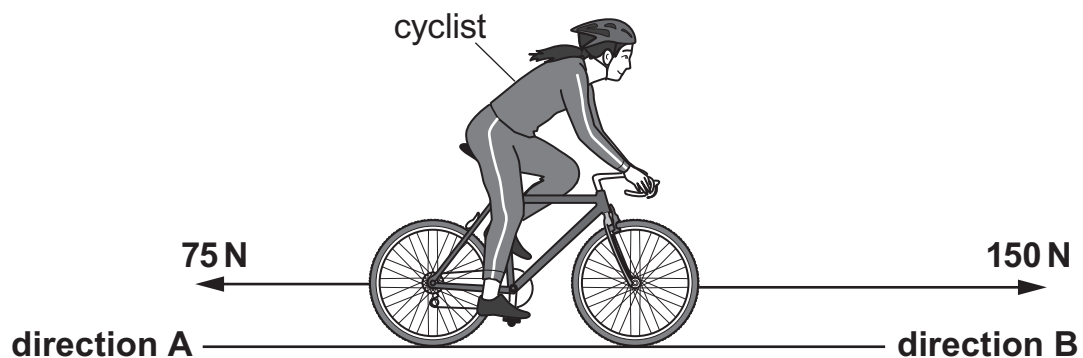
Complete the sentence.

N is the unit for and kg is the unit for

..... [1]

(c) Look at the diagram.

Draw **one** arrow on the diagram to show the size and direction of a force due to gravity of 300 N.



[1]

13 This question is about evaporation and boiling.

(a) Complete the sentences.

Choose from the list.

faster

higher

lower

slower

warmer

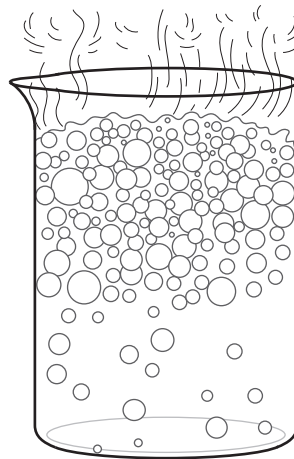
Evaporation is than boiling.

Evaporation happens at temperatures than the boiling point.

[2]

(b) Youssef heats some water.

The diagram shows what happens.



Write down **two** reasons why Youssef knows the water is boiling.

1

2

[2]

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