Cambridge Primary Checkpoint

Cambridge International Examinations
Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

4707624 8

SCIENCE **0846/02**

Paper 2 **October 2018**

45 minutes

Candidates answer on the Question Paper.

Additional Materials: Pen
Pencil
Ruler
Calculator

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name in the spaces at the top of this page.
Write in dark blue or black pen.

DO **NOT** WRITE IN ANY BARCODES.

Answer **all** questions.

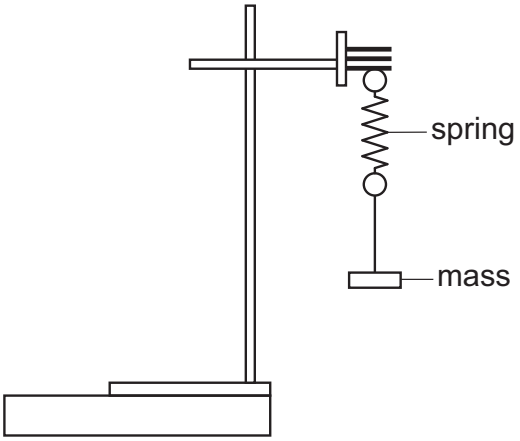
The number of marks is given in brackets [ ] at the end of each question or part question.
You should show all your working in the booklet.
The total number of marks for this paper is 50.

This document consists of **22** printed pages and **2** blank pages.

CAMBRIDGE International Examinations

1 Youssef investigates bouncing objects.

Look at the apparatus he uses.



The spring stretches when the mass is added.

(a) Which unit is used to measure mass?

..... [1]

(b) Draw an arrow on the diagram to show the direction of gravity on the mass. [1]

2 Lily adds separate samples of solids to water.

She stirs the solid and water to see if the solid dissolves.

Here are her results.

solid	colour of solid	does the solid dissolve?	colour of solution
chalk	white	no	no solution is formed
copper carbonate	green	no	no solution is formed
copper sulfate	blue	yes	blue
salt	white	yes	colourless
sugar	white	yes	colourless

(a) Complete the sentences.

Sugar dissolves in water because water is a ..... .

Chalk does **not** dissolve because it is ..... .

[2]

(b) Copper sulfate is a blue solid.

It dissolves in water.

What colour solution does it form?

..... [1]

(c) Salt dissolves in water to form salt solution.

What is the name of the **solute** in salt solution?

..... [1]

3 Gabriella collects litter around her school.

(a) Gabriella wants to measure how much litter she has collected.

What does she measure?

Circle the correct answer.

the colour of the litter

the mass of the litter

the shape of the litter

the type of litter

where she found the litter

[1]

(b) Gabriella's class start a litter campaign.

They put posters up and get new litter bins.

The litter campaign is successful.

Explain how they know the litter campaign has been successful.

.....

..... [1]

(c) Gabriella looks at the things in the mixed litter.

She counts them and makes a tally chart.

food packets	papers	plastic bottles	straws	tissues
𝍸 𝍸 𝍸 𝍸 III	𝍸 𝍸 𝍸 𝍸 IIII	𝍸 𝍸 𝍸 II	𝍸 𝍸 II	𝍸 𝍸 𝍸 𝍸
total = 23	total = ……..	total = ……..	total = 12	total = 20

Complete the sentences.

The total for papers is ..... .

The total for plastic bottles is ..... .

The lowest number is for ..... .

[1]

(d) Gabriella wants to measure how much litter she has collected.

She thinks that counting the number of things in the mixed litter is **not** a fair test.

Explain why this is **not** a fair test.

.....

..... [1]

4 Materials have specific properties.

Draw a line between each **material** and the correct **property** of the material.

material	**property**
	white solid
carbon dioxide	flammable liquid
gasoline	melting point of 0 °C
mercury	colourless gas
steel	silver liquid
water	attracted to a magnet
	pink solid

[5]

5 Carlos investigates food chains.

He finds this information on the internet.

- aphids eat roses
- birds eat beetles
- beetles eat aphids
- roses are producers

(a) Write down the food chain using this information.

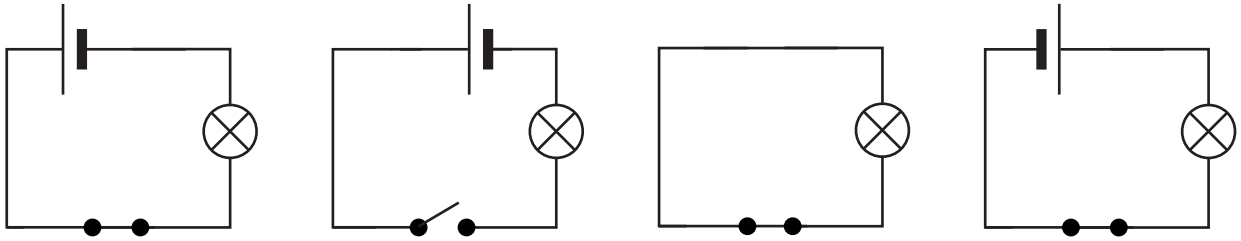
[2]

(b) One organism in this food chain is **both** a predator and a prey.

What is the name of this organism?

..... [1]

6 Here are four electrical circuits.



(a) How many lamps in total will light up?

Circle the correct answer.

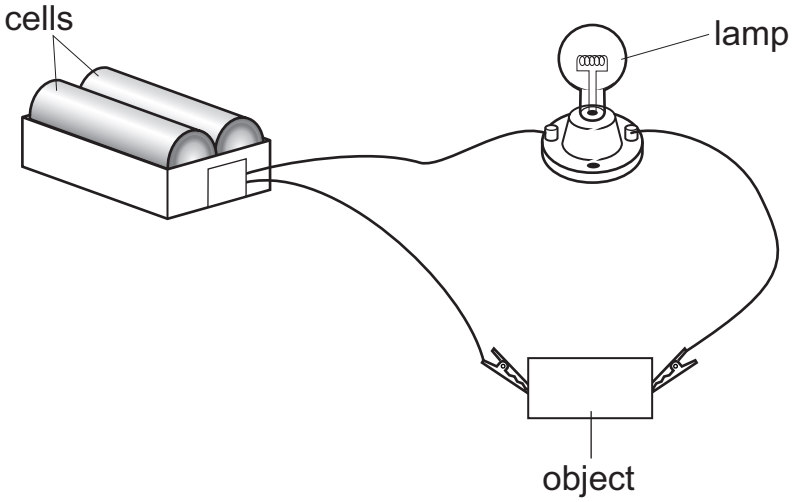
0 **1** **2** **3** **4**

[1]

(b) Draw a circuit symbol for a cell.

[1]

(c) Lily puts different objects in this electrical circuit.



Predict what will happen if the object is a **good** conductor.

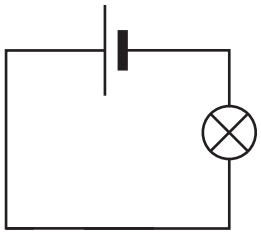
.....

Predict what will happen if the object is a **bad** conductor.

.....

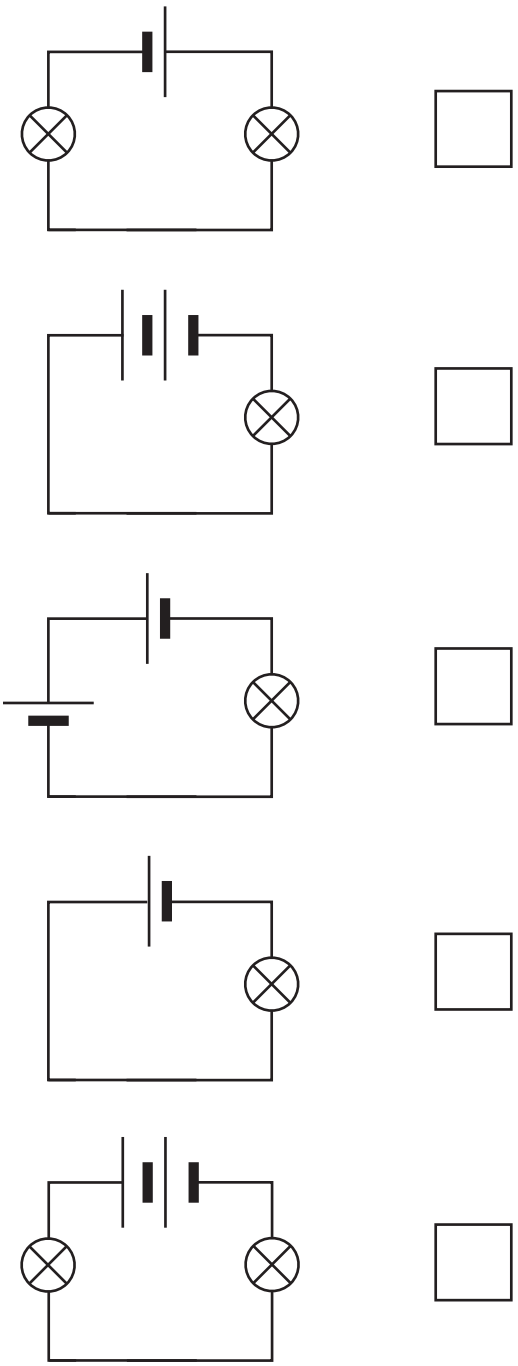
[1]

(d) Lily makes this circuit.



Lily wants to make the lamp brighter. Which electrical circuit should she make?

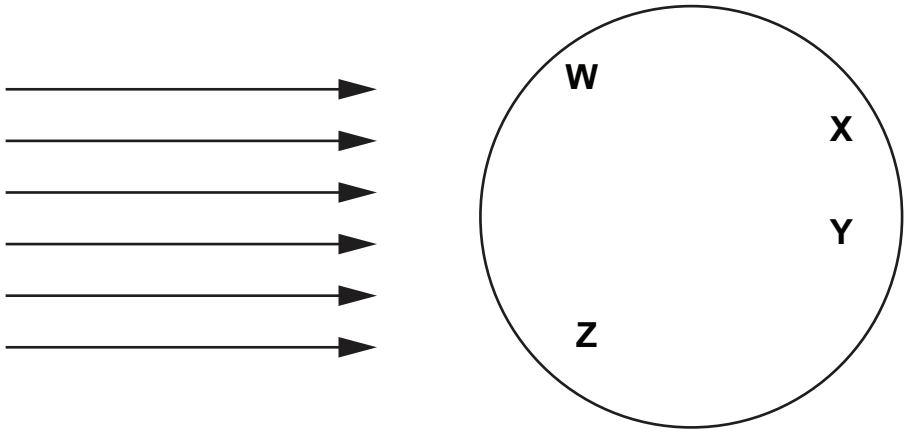
Tick (✓) the box next to the correct electrical circuit.



[1]

7 Chen draws a picture of the Earth and rays of sunlight.

He writes the letters **W**, **X**, **Y** and **Z** on the Earth.



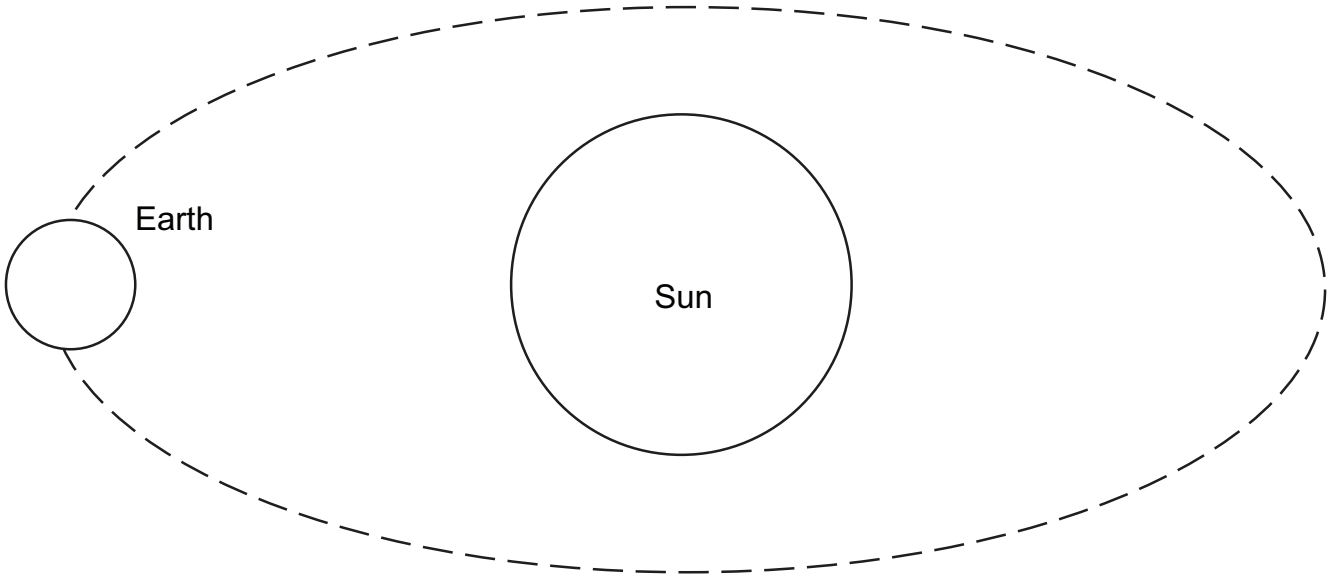
(a) Which letters show the places on Earth where it is day and where it is night?

Put the letters in the table.

day	night

[1]

(b) Chen draws a diagram to show the position of the Sun and the Earth.



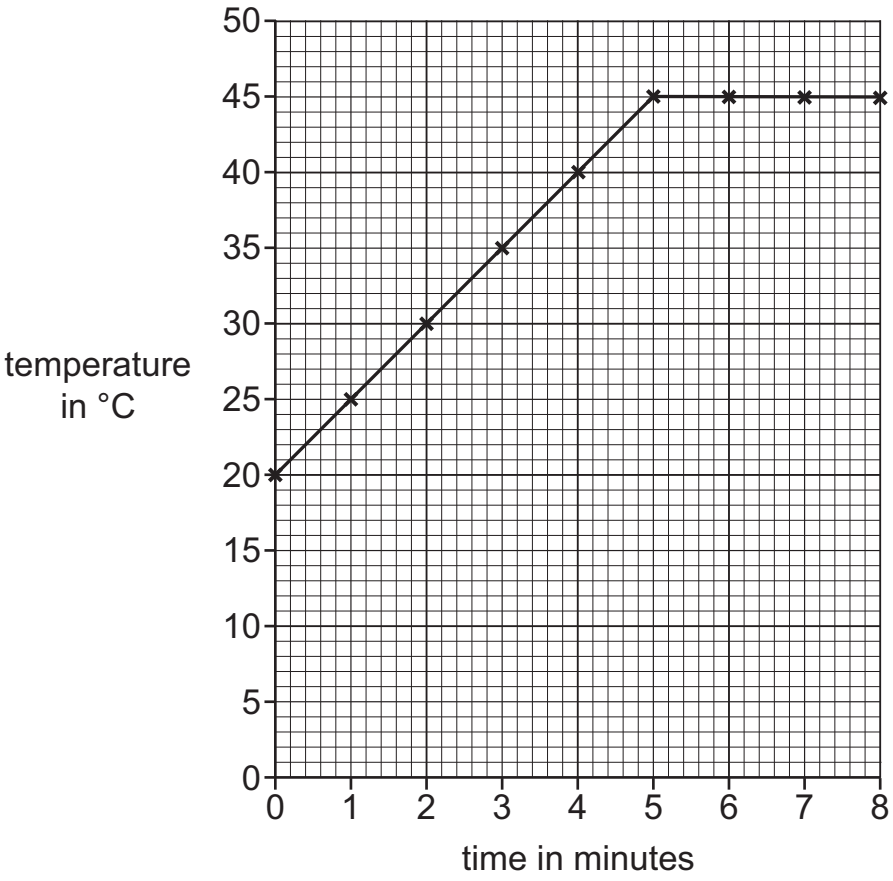
Draw the position of the Earth six months later.

[1]

8 Mia heats a substance.

She measures the temperature of the substance every minute.

Here is a line graph of her results.



(a) Name the apparatus Mia uses to measure temperature.

.....

[1]

(b) Complete the sentence about the patterns in the results.

As the time increases, the temperature .....

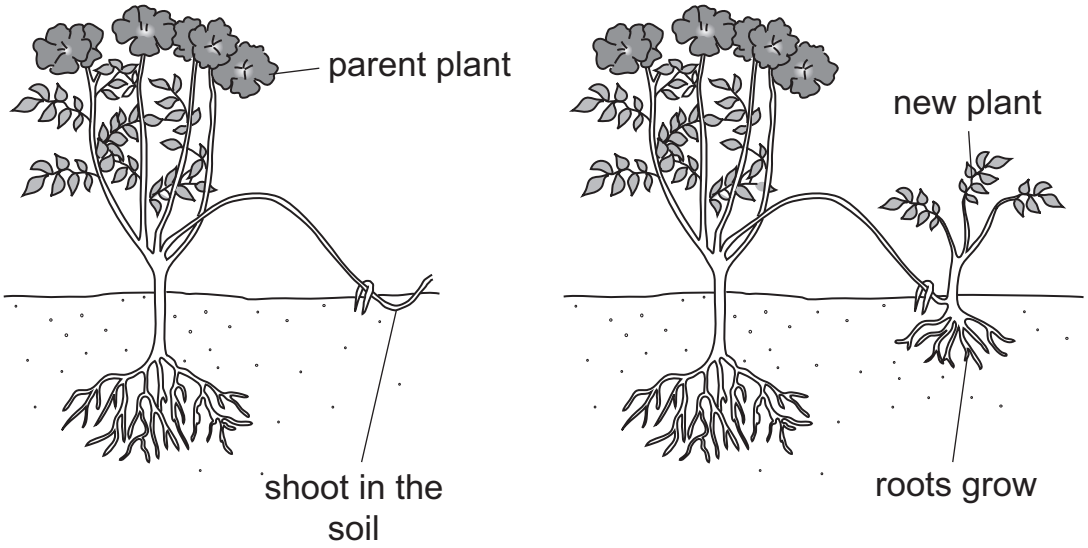
.....

.....

[2]

9 Priya finds a diagram on the internet.

It shows a parent plant making a new plant.

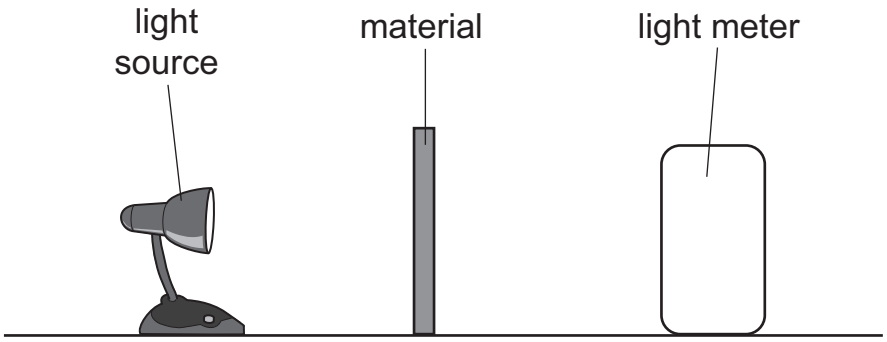


What is this life process called?

..... [1]

10 Pierre is investigating if materials are transparent or opaque.

Here is the apparatus he uses.



(a) Pierre has instructions to test each material.

They are **not** in the correct order.

A Turn the light source on and read the light meter.

B Select the material and place it between the light source and light meter.

C Turn the light source off and record the results.

D Collect the light source and light meter.

Put each letter in the correct order in the table.

first instruction ☐

↓

☐

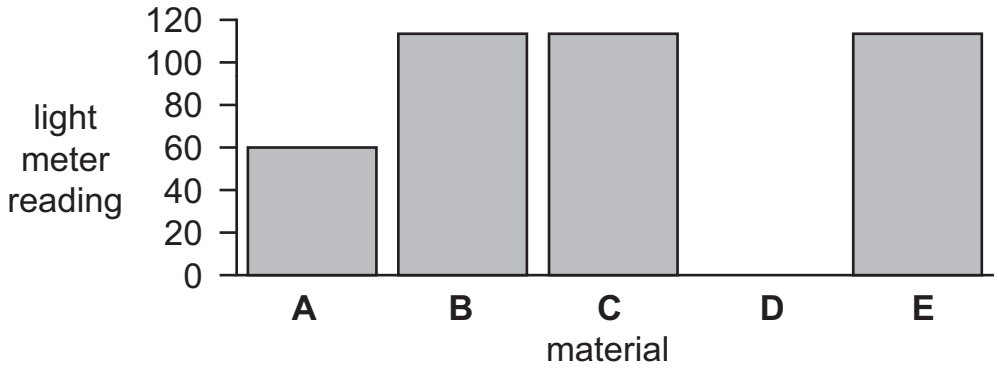
☐

☐

last instruction ☐

[2]

(b) Look at his results.



Which sentences are true?

Tick (✓) the boxes next to the **two** correct sentences.

All the materials allow light to pass through. ☐

None of the materials allow light to pass through. ☐

One material is opaque. ☐

Three materials let most light through. ☐

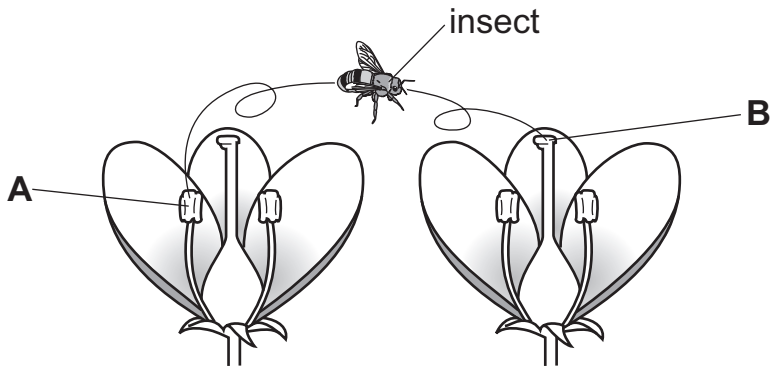
Two materials are opaque. ☐

Two materials let most light through. ☐

[2]

11 Oliver finds a picture on the internet.

It shows an insect moving from one flower to another flower.



(a) What happens at **A**?

.....

..... [2]

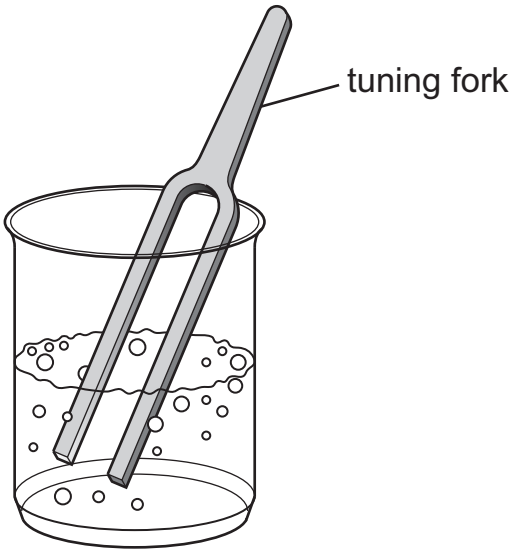
(b) What happens at **B**?

.....

..... [1]

12 Aiko hits a tuning fork on a desk.

She puts the ends of the tuning fork into a beaker of water.



(a) Explain what happens to the water in the beaker.

Complete the sentences.

The water in the beaker .....

This is because .....

[2]

(b) Describe how Aiko can increase what happens to the water.

.....

[1]

13 Here is a table of melting points and boiling points.

material	melting point in °C	boiling point in °C
A	– 60	10
B	0	103
C	45	150
D	10	100
E	0	100

(a) Which **two** materials have a melting point **above** the melting point of water?

Choose **A**, **B**, **C**, **D** or **E** from the table.

..... **and** ..... [1]

(b) Which material is **water**?

Choose **A**, **B**, **C**, **D** or **E** from the table.

..... [1]

(c) The room temperature in a laboratory is 25 °C.

Which material is a **solid** in the laboratory?

Choose **A**, **B**, **C**, **D** or **E** from the table.

..... [1]

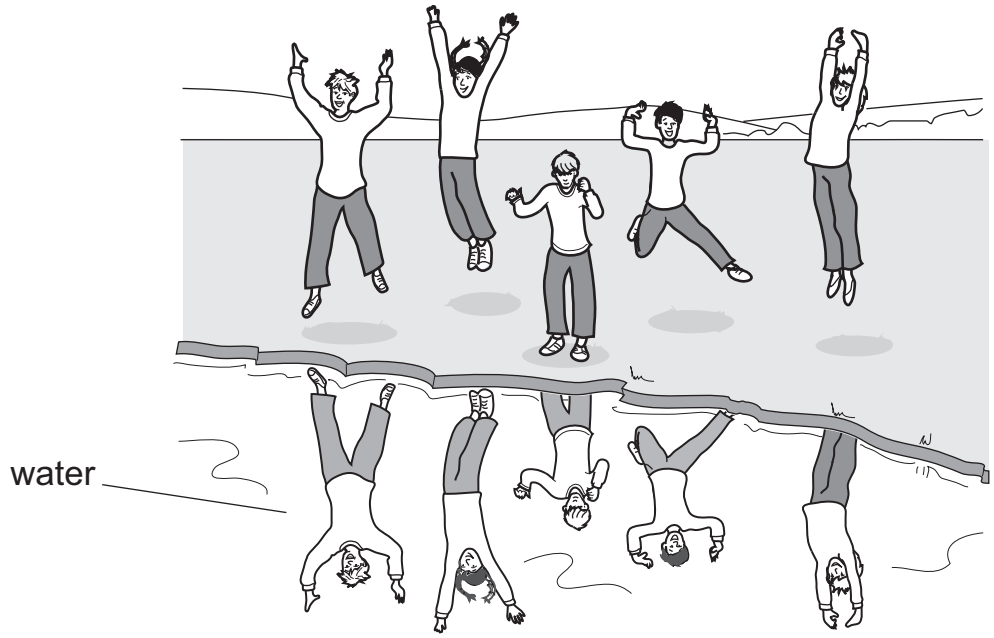
(d) The room temperature in a laboratory is 25 °C.

Which material is a **gas** in the laboratory?

Choose **A**, **B**, **C**, **D** or **E** from the table.

..... [1]

14 Five friends jump in the air.



Explain why it looks like there are ten friends in the picture.

.....

..... [2]

15 Carlos investigates how temperature affects the growth of tomato plants.

In his investigation he:

- puts some tomato seeds in soil
- adds water to the seeds
- keeps the seeds at different temperatures
- measures the height of the tomato plants after 30 days.

(a) What does Carlos use to measure the volume of water accurately?

Circle the correct answer.

measuring beaker

measuring cylinder

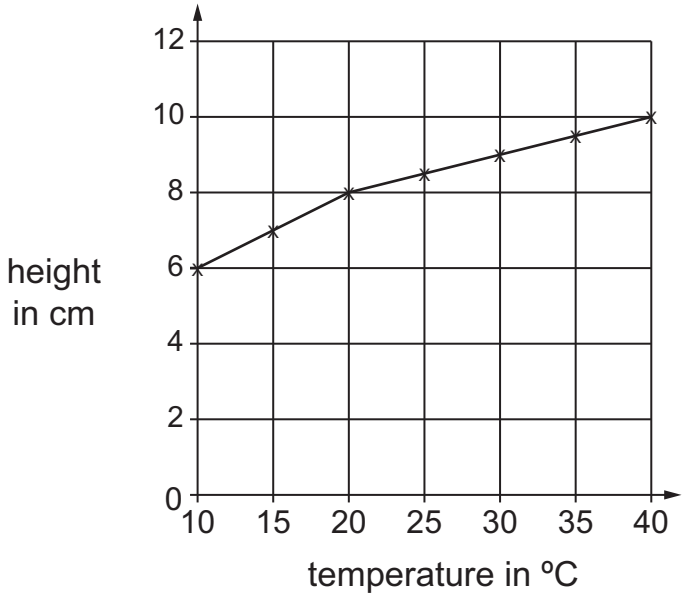
measuring jug

measuring scales

measuring spoon

[1]

(b) Here are his results.



Complete the sentences about the graph.

When the temperature is 10 °C the height of the plant is ..... cm.

When the temperature is 40 °C the height of the plant is ..... cm.

The difference in height between 10 °C and 40 °C is ..... cm.

As the temperature increases the height of the tomato plants .....

.....

[2]

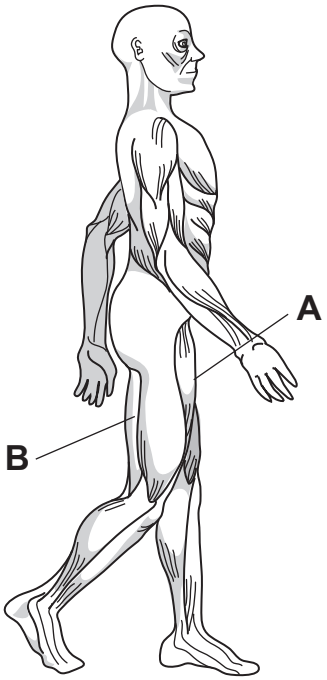
(c) Carlos only uses **one** tomato seed for each temperature.

He thinks that some of his results may be wrong.

What should he do to get better results?

..... [1]

16 Mia finds a picture on the internet.



A and **B** are muscles.

Explain how these muscles make the leg move.

.....

.....

..... [2]

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