



Cambridge International Examinations
Cambridge Primary Checkpoint

CANDIDATE
NAME

--

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--

* 8 5 2 8 0 9 1 1 8 5 *

SCIENCE

0846/02

Paper 2

October 2015

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 **18** printed pages and **2** blank pages.

1 Complete the sentences about food chains.

Choose from the following words.

consumer predator prey producer

A food chain starts with a

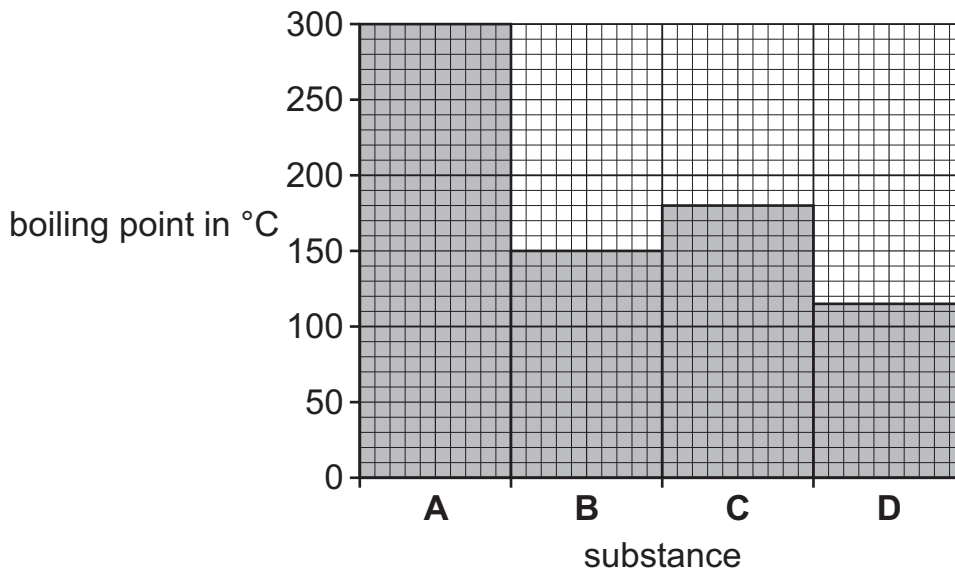
Any animal eaten by another animal is their

An animal that eats something else in the food chain is a

An animal that eats another animal is a

[3]

2 This bar chart shows the boiling points of some substances.



(a) What is the boiling point of substance **A**?

..... °C [1]

(b) Which substance has the lowest boiling point?

..... [1]

(c) What happens to a liquid when it boils?

..... [1]

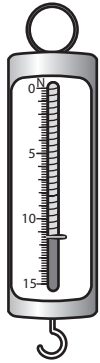
(d) Water is not shown on the bar chart.

What is the boiling point for water?

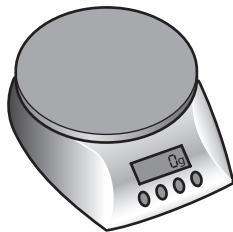
..... °C [1]

3 Oliver measures how loud some sounds are.

(a) Circle the apparatus he uses.



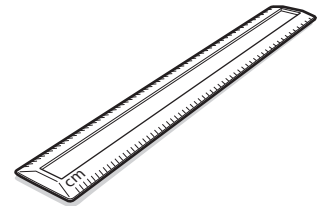
force meter



balance



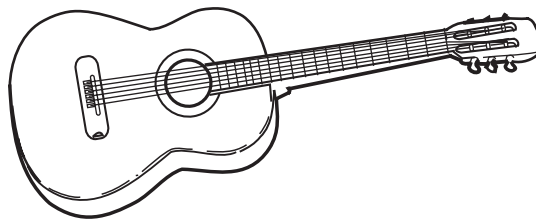
sound meter



ruler

[1]

(b) Oliver picks up a guitar.



guitar

What must he do to the guitar to produce a sound?

..... [1]

(c) There is a group of children playing violins.



The teacher wants them to produce a louder sound.

What **two** things would make this happen?

Tick (✓) the **two** correct sentences.

Play the violins harder.

Play the violins softer.

Have more violins playing.

Have less violins playing.

[1]

4 Keys can be used to identify plants.

Here is the key for some plants.



A



B



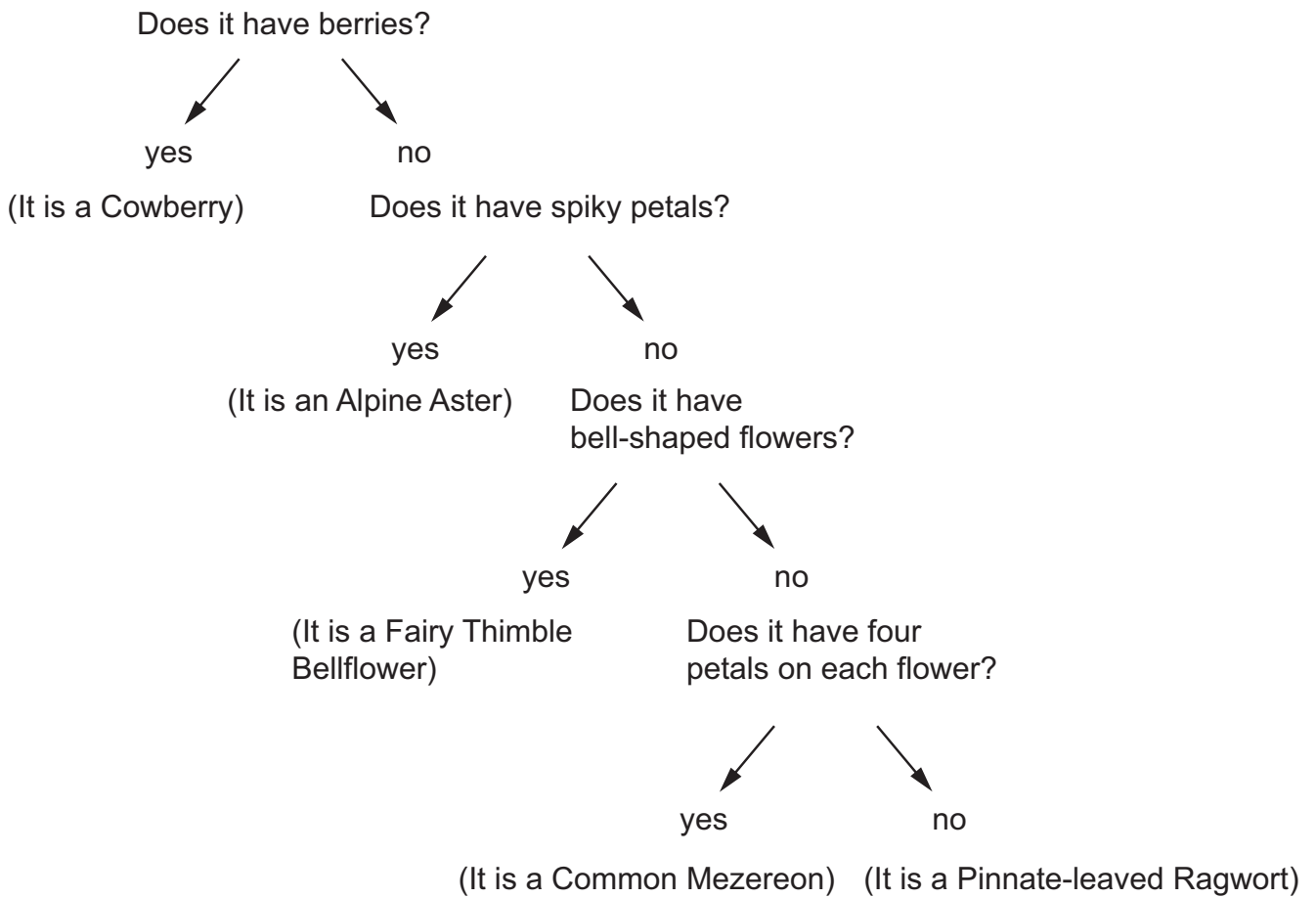
C



D



E



Use the key to identify the plants.

- A =
- B =
- C =
- D =
- E = [3]

5 Chen wants to separate a mixture of salt, sand and iron powders.

(a) First of all Chen decides to separate the iron from the mixture.

Put a circle around the method he uses.

evaporation

filtration

magnetic attraction

sieving

[1]

(b) Chen then decides to separate the sand from the salt and sand.

He adds water to the mixture and then stirs the mixture for two minutes.

Put a circle around the method he then uses to obtain the sand.

evaporation

filtration

magnetic attraction

sieving

[1]

(c) To finish the separation Chen gets salt from the salt solution.

Put a circle around the method he uses to obtain the salt.

evaporation

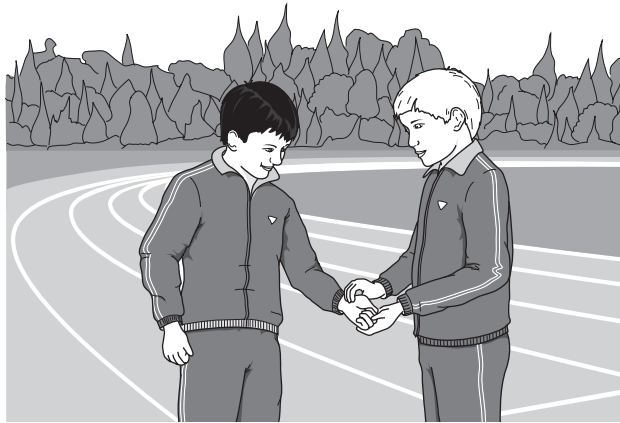
filtration

magnetic attraction

sieving

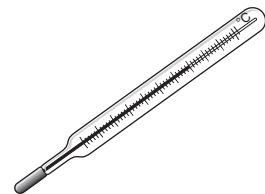
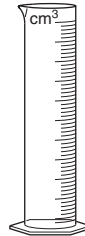
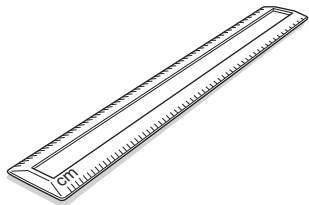
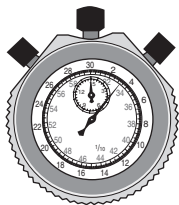
[1]

6 Pierre and Yuri investigate how exercise changes pulse rate.



(a) What equipment will they need to measure pulse rate?

Circle the correct equipment.



[1]

(b) Which unit is a correct measurement of pulse rate?

Circle the correct answer.

beats per minute

beats per second

minutes per beat

seconds per beat

[1]

(c) Pierre runs for 1 minute.

Complete the sentence using one of these words.

decrease

increase

stay the same

Pierre thinks his pulse rate will [1]

(d) What is the sentence above?

Circle the correct answer.

conclusion

method

prediction

result

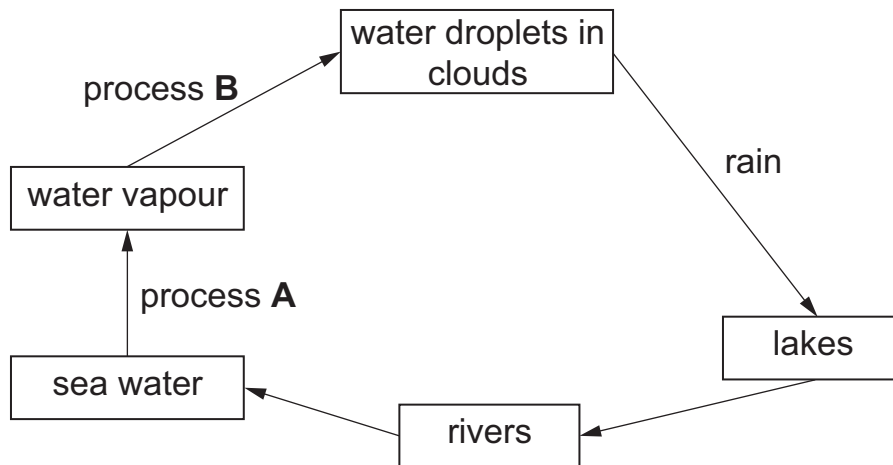
[1]

(e) Pierre runs for 1 minute again.

Why is it a good idea to repeat measurements?

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

7 The flow chart shows part of the water cycle.



(a) What is the name of process **A**?

..... [1]

(b) What is the name of process **B**?

..... [1]

(c) Sometimes it is so cold that the water in a lake becomes ice.

What is the name of this process?

..... [1]

(d) Sea water is boiled in a beaker for a long time.

What would you see?

..... [1]

8 Lily wants to measure her mass.

She stands on the scales.



she puts her
hands down



she puts her
hands up

Tick (✓) the correct answer.

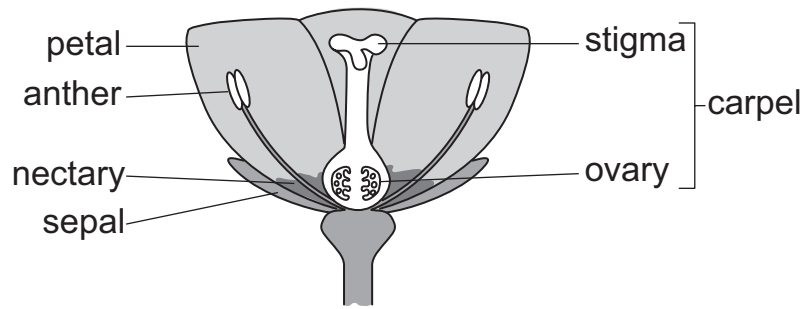
Lily's mass is **greatest** when her hands are up.

Lily's mass is **less** when her hands are up.

Lily's mass is the **same** when her hands are up or down.

[1]

9 Flowers have different parts.



(a) Why do flowers have petals?

..... [1]

(b) Circle the part of the flower which produces pollen.

anther carpel ovary

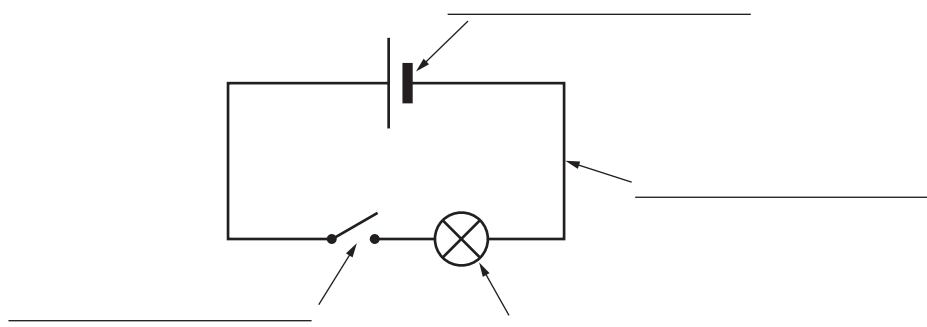
[1]

(c) Circle a female part of the flower.

nectary petal sepal stigma

[1]

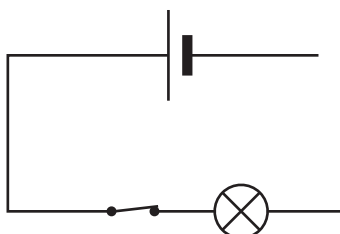
10 Rajiv finds an electric circuit diagram in a book.



(a) Label the circuit diagram.

[3]

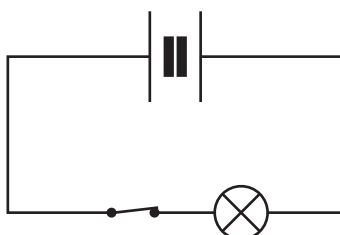
Rajiv builds this circuit.



(b) It does not work. Explain why.

..... [1]

(c) Rajiv now builds this circuit.

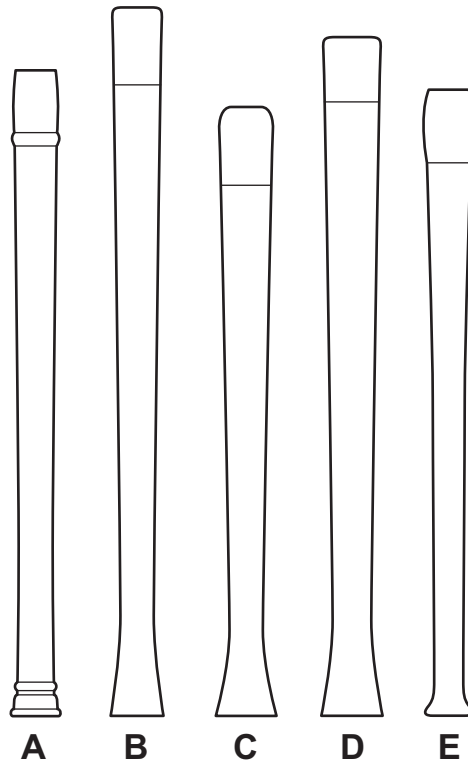


It does not work. Explain why.

..... [1]

11 Oliver and Carlos investigate sound.

They listen to the **pitch** made by different recorders.



(a) The recorders are different lengths.

What apparatus is used to measure the **length** of the recorders?

..... [1]

(b) Recorder **B** has the lowest pitch.

Predict which recorder will have the highest pitch.

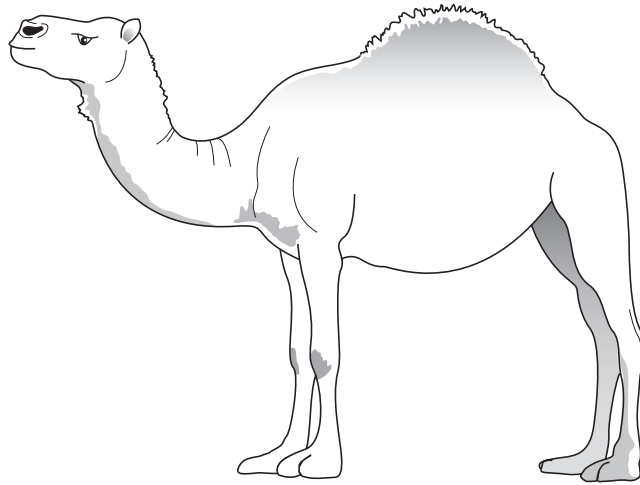
Circle the correct letter.

A C D E [1]

(c) Explain why you predicted this recorder.

.....
 [1]

12 Using the picture below list **three** features which help this animal to adapt to its environment.



- 1
- 2
- 3 [3]

13 Scientists explore the solar system.

Which scientist was one of the **first** to believe that the Sun was at the centre of our solar system?

Tick (✓) the correct scientist.

Edwin Hubble

Galileo Galilei

Isaac Newton

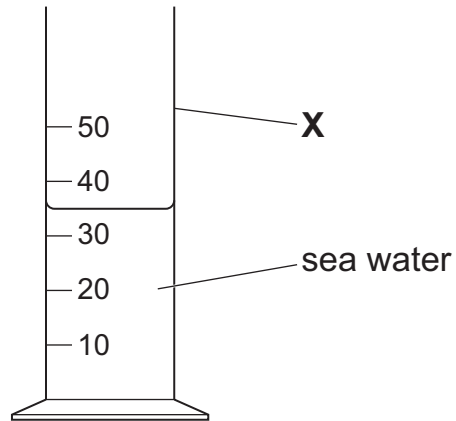
Leonardo da Vinci

[1]

14 Hassan lives by the sea.

He wants to find out how much salt is in seawater.

He measures a small volume of seawater using this apparatus.



(a) What is the name of apparatus **X**?

..... [1]

(b) What is the volume of seawater in apparatus **X**?

..... cm³ [1]

(c) Hassan then finds the mass of a clean glass dish.

What piece of apparatus should Hassan use to do this?

Circle the correct answer.

balance

beaker

ruler

thermometer

[1]

(d) Hassan pours all of the seawater into the glass dish.

He leaves the dish of seawater in the sun for one day.

What happens to the volume of seawater in the dish?

Circle the correct answer.

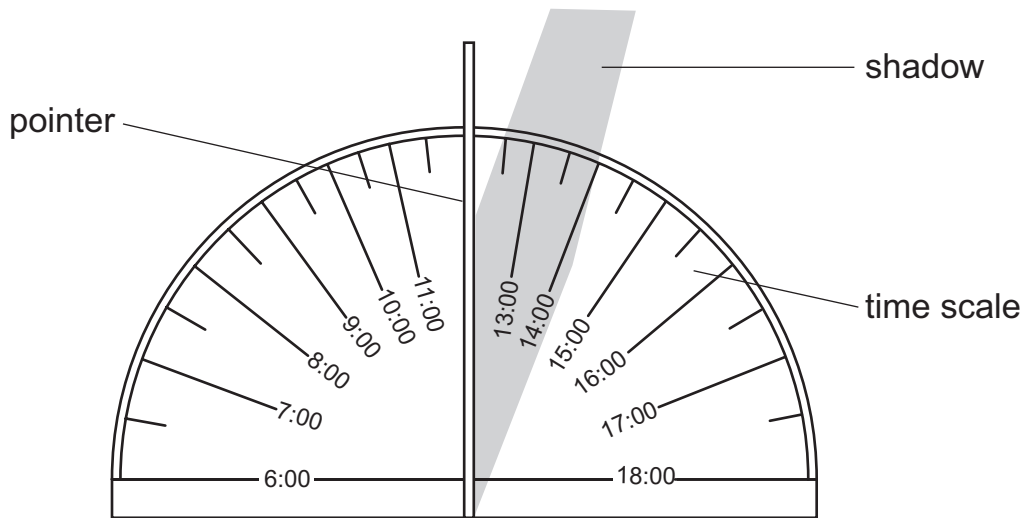
decreases

increases

stays the same

[1]

15 Priya and Mia make a sundial.



(a) The time is 14:00.

Describe how the sundial shows this time.

.....
..... [2]

(b) Why does the shadow change during the day?

Circle the correct answer.

- the Sun moves during the day
- the Earth spins on its axis during the day
- the Sun spins on its axis during the day

[1]

(c) Priya wants to make a sundial to show the time over 24 hours.

Mia says this is **not** possible.

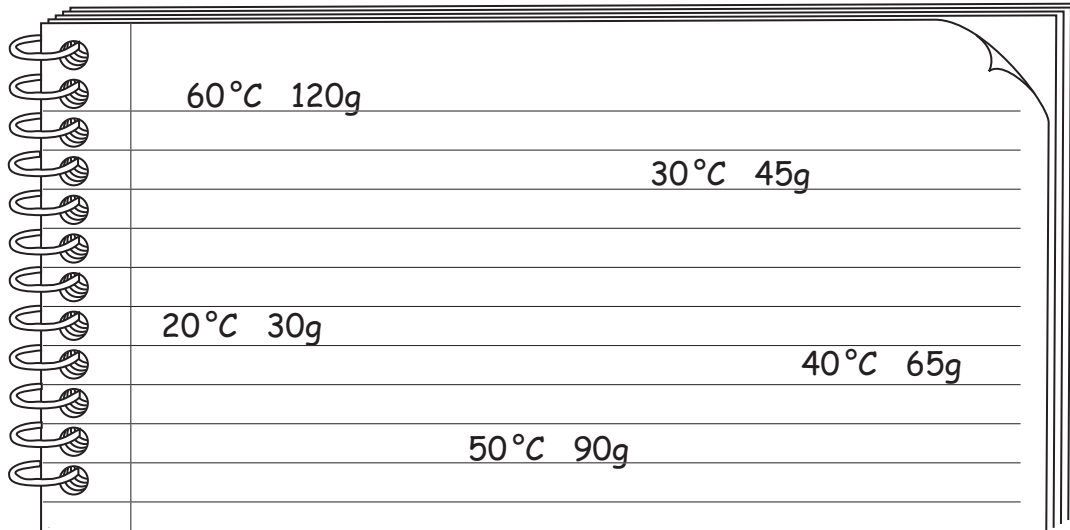
Explain why Mia is correct.

..... [1]

16 Aiko investigates how much of a solid dissolves in 100 cm^3 of water.

She writes down her results.

Here is a page from her note book.



The image shows a spiral-bound notebook page with a table of results. The table has two columns: Temperature (°C) and Mass (g). The data points are as follows:

60°C	120g
30°C	45g
20°C	30g
40°C	65g
50°C	90g

Why is it a good idea for Aiko to put her results in a table?

..... [1]

BLANK PAGE

BLANK PAGE

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

University of Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.