Cambridge Assessment International Education

Cambridge Primary Checkpoint

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

9718459775

SCIENCE **0846/02**

Paper 2 **April 2020**

45 minutes

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

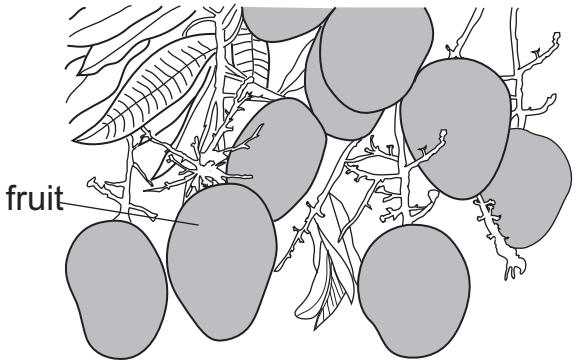
- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction 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 50.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **20** pages. Blank pages are indicated.

1 The mango tree produces fruit.



The fruit contains seeds.

The seeds are used to grow new mango trees.

(a) What is this life process called?

..... [1]

(b) The mango tree produces lots of fruit.

Why does it produce lots of fruit?

Circle the correct answer.

to collect light

to collect water

to help the tree grow

to look pretty

to make many seeds

[1]

2 At room temperature a material is either a solid, liquid or a gas.

Complete the table by putting ticks (✓) in the correct boxes.

One has been done for you.

material	at room temperature material is a …..		
	solid	**liquid**	**gas**
carbon dioxide			✓
gasoline			
mercury			
nitrogen			

[3]

3 These sentences are about caring for the environment.

Circle the words in **bold** that make each sentence correct.

We must recycle **less / more** of our rubbish.

We must **increase / reduce** energy consumption.

We must **drop / pick up** litter.

We must **destroy / protect** habitats.

We must **clean / pollute** rivers.

[2]

4 During a storm there is thunder and lightning.

They are made at the same time.

Mike records the time of day he sees the lightning.

He counts the number of seconds between seeing the lightning and hearing the thunder.

time of day he sees the lightning	number of seconds between the lightning and thunder
11:00	8
11:04	6
11:06	5
11:09	2
11:13	4
11:17	9

Write down two observations about the results.

1 .....

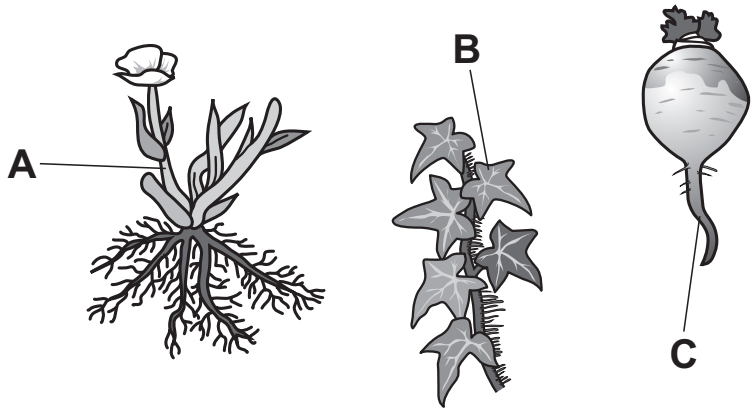
.....

2 .....

.....

[2]

5 Chen draws different parts of plants.



What are the names of these parts?

A .....

B .....

C .....

[1]

6 Match the following processes to the correct change of state.

Draw a line between the **process** and the correct **change of state**.

process	change of state
	gas to liquid
condensation	gas to solid
evaporation	liquid to gas
freezing	liquid to solid
melting	solid to gas
	solid to liquid

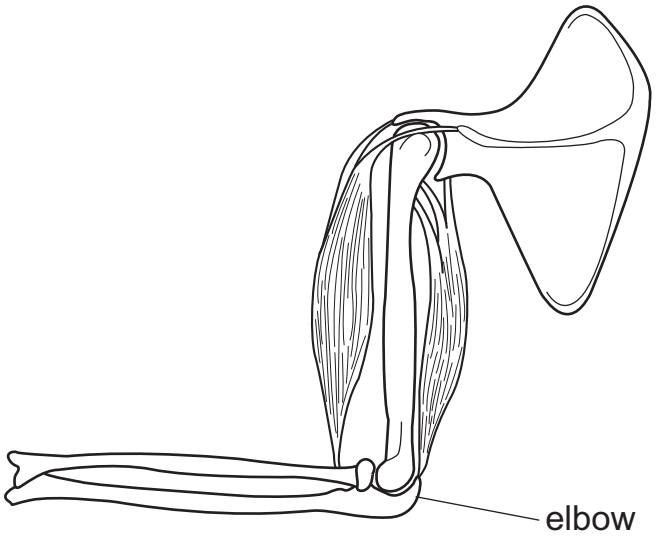
[4]

7 Yuri investigates how arms move.

(a) What contracts to make an arm move?

.....[1]

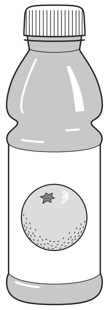
(b) Look at the picture of the arm.



Label the part that contracts to make this arm bend at the elbow.

Use the letter **X** for your label. [1]

8 Orange juice is stored in plastic bottles.



(a) Plastic is insoluble in water.

What does insoluble in water mean?

.... [1]

(b) It is important that the plastic used to make orange juice bottles is insoluble in water.

Explain why.

....

.... [1]

(c) Name **one other** property of plastic that makes it suitable for making orange juice bottles.

....

....

.... [1]

(d) Glass can also be used to make bottles for storing orange juice.

Suggest **one disadvantage** of using glass instead of plastic to make the bottles.

....

.... [1]

9 Plants have life cycles.

(a) Draw a line from each **stage** of the life cycle to its **description**.

stage	description
fertilisation	insects move from flower to flower
germination	happens in the fruit
seed production	ovum and pollen meet
pollination	shoot and root begin to grow

[3]

(b) There are different stages in the life cycle of a plant.

What stage comes after seed production but before germination?

.....

Describe how animals take part in this stage.

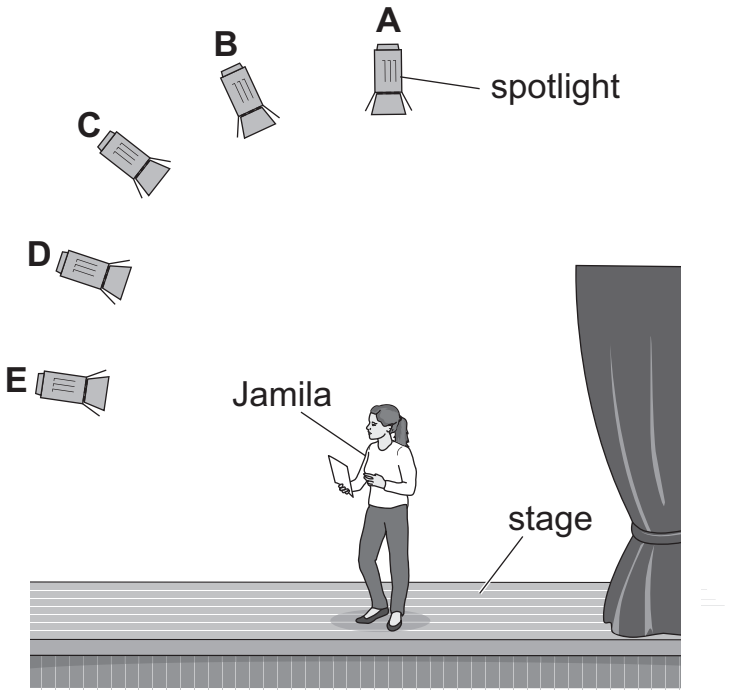
.....

..... [2]

10 Jamila is singing on a stage.

There are five spotlights above the stage.

Each spotlight is turned on one at a time.



(a) Which spotlight produces the **longest** shadow?

Circle the correct answer.

A **B** **C** **D** **E** [1]

(b) Which spotlight produces almost **no** shadow?

Circle the correct answer.

A **B** **C** **D** **E** [1]

(c) What piece of apparatus is used to measure the light intensity?

..... [1]

11 (a) Look at the two plates of food.

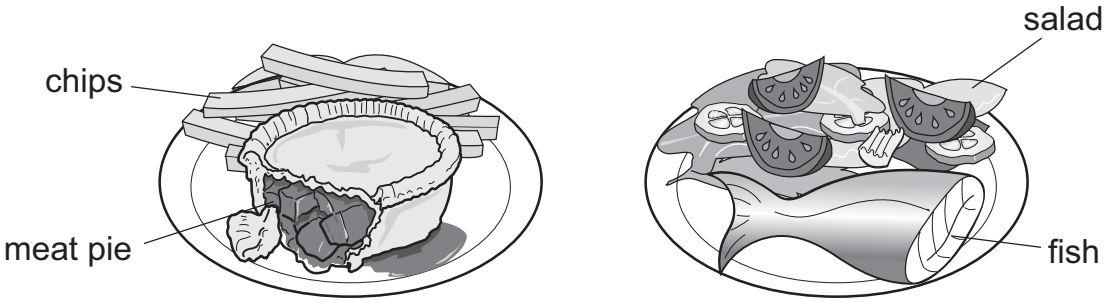


plate **A** plate **B**

Ahmed needs to lose some weight.

Which plate of food should he choose?

Explain your answer.

.....

..... [1]

(b) Ahmed finds this label on a packet of food.

LOW	**Fat** 6.4 g per serving
LOW	**Saturates** 1.8 g per serving
HIGH	**Sugars** 41.5 g per serving
MED	**Salt** 1.9 g per serving
	280 Calories per serving

Explain why this food is **not** a healthy choice.

.....

..... [1]

12 Mia has ten boxes.

Each box has a fact about the Earth.

Only four of the boxes have true facts.

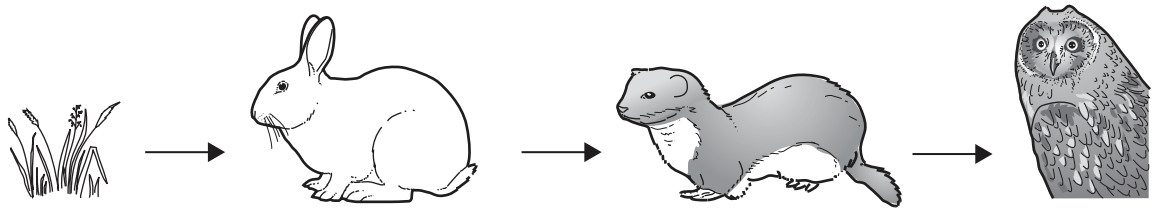
One box with a true fact has been ticked for you.

Put a tick (✓) in the boxes of the other **three** true facts.

The Earth spins on its axis.	The Earth only spins in the morning.	The Earth orbits the Sun. ✓	The Earth spinning on its axis causes day and night.	The Earth takes 24 hours to orbit the Sun.
The Earth takes a year to spin on its axis.	The Earth moves very close to the Sun and then stops.	The Earth takes a year to orbit the moon.	The Earth takes 24 hours to spin on its axis.	The Earth spins to the left and then to the right.

[3]

13 Look at the food chain.



(a) How many **consumers** are there in this food chain?

.....

[1]

(b) How many **predators** are there in this food chain?

.....

[1]

(c) How many **prey** are there in this food chain?

.....

[1]

14 Lily plays a musical instrument.

She blows into the instrument.

This makes a sound.

(a) Describe how blowing into the instrument makes a sound.

.....

..... [1]

(b) What does Lily do to make the sound **louder**?

..... [1]

15 Mike adds solids to water.

(a) He adds 1g of **sugar** to 100 cm^3 of water.

He stirs the mixture.

What does he observe?

.....

.....

[1]

(b) Mike adds 1g of **salt** to 100 cm^3 of water.

He stirs the mixture.

It is a solution.

What colour is the solution?

.....

[1]

(c) Mike filters the salt solution.

The salt is **not** separated from the water.

Explain why.

.....

.....

[1]

(d) Describe how Mike can separate salt from water.

.....

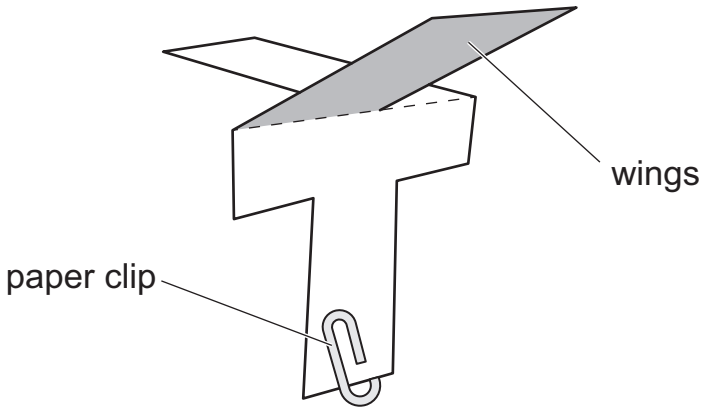
.....

.....

[2]

16 Pierre and Rajiv investigate how seeds are dispersed.

They make a model seed from paper.



Pierre drops the model seed from a height of 2 m.

Rajiv measures the time it takes for the model seed to fall to the ground.

They repeat their method but change the length of the wings.

Here are their results.

length of wings in	**time to fall in seconds**
6	2.3
5	2.1
4	2.4
3	1.7
2	1.5

(a) Pierre and Rajiv have **not** put the units for the length of the wings in the table.

Complete the table. [1]

(b) Most of the results fit a pattern.

Complete the sentence about this pattern.

The shorter the wings the .....

..... . [1]

(c) Which length of wings does **not** fit the pattern?

..... [1]

(d) They want to do a new investigation about how seeds are dispersed.

They have already investigated the length of the wings.

Write down two **other** factors about the model seed they could investigate.

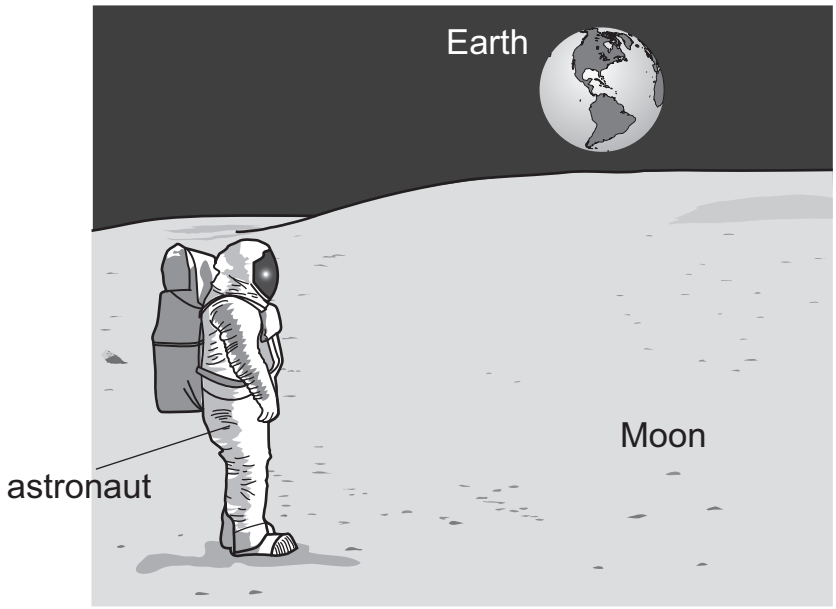
1 .....

2 .....

[2]

17 An astronaut is on the Moon.

She looks at the Earth.



Why can the astronaut see the Earth from the Moon?

Complete the sentences.

Light comes from the .....

This light hits the Earth and is .....

This light reaches the astronaut on the Moon.

The astronaut sees the Earth because the light enters her .....

[2]

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