Cambridge Assessment International Education

Cambridge Primary Progression Test

Science paper 1

Stage 6

9038772400

45 minutes

Name .....

Additional materials: Ruler

READ THESE INSTRUCTIONS FIRST

Answer **all** questions in the spaces provided on the question paper.

You should show all your working on the question paper.

The number of marks is given in brackets [ ] at the end of each question or part question.

The total number of marks for this paper is 50.

For Teacher's Use	
Page	**Mark**
1	
2	
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20	
Total	

For Teacher's Use

1 Some materials are electrical conductors and others are electrical insulators.

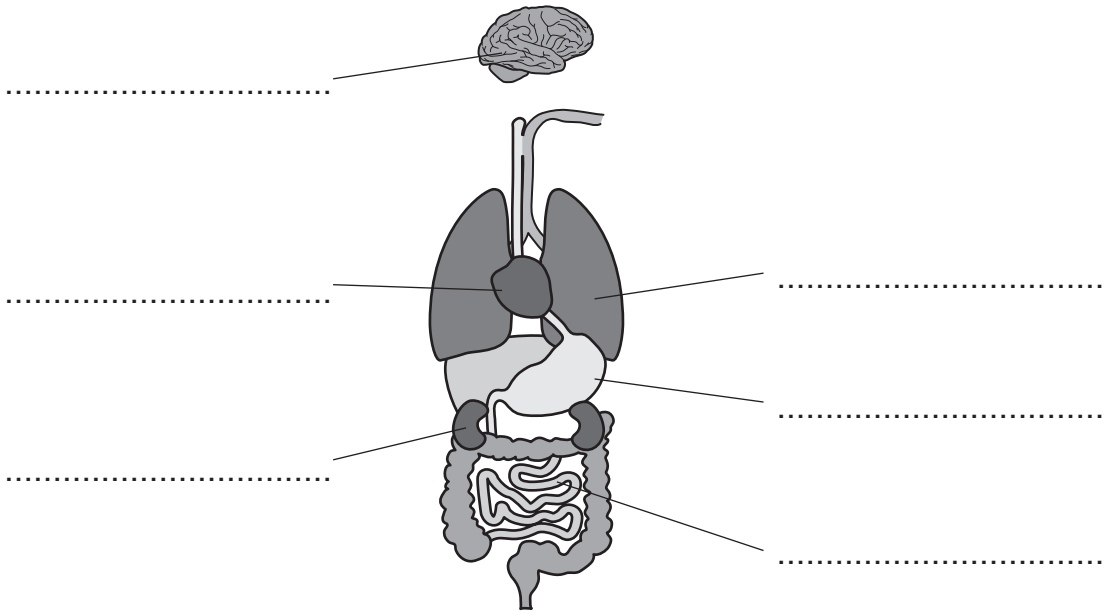
Complete the table about these materials.

Tick (✓) the correct column for each material.

material	electrical conductor	electrical insulator
copper		
graphite		
plastic		
rubber		
wood		

[3]

2 Label the organs on the diagram of a human body.

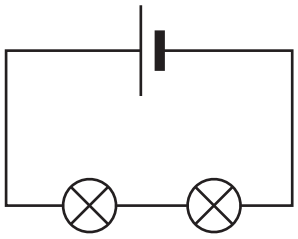


[3]

3 Mike is exploring electrical circuits.

For Teacher's Use

Here is the circuit he makes.



The lamps are very dim.

What can he do to make the lamps **brighter**?

Tick (✓) one box.

add another cell ☐

add another lamp ☐

add a switch ☐

make the wire longer ☐

[1]

For Teacher's Use

4 Blessy has four different solids.

She investigates how many grams of each solid she can dissolve in water.

Here is what she does

- pours 20 cm^3 of water into a beaker
- adds 1g of solid to the water and stirs
- if the solid dissolves she adds another 1g of solid and stirs
- she keeps adding 1g of solid at a time until no more dissolves.

Here are her results.

name of solid	total mass of solid added in g
sugar	16
fertiliser	30
salt	8
baking powder	5

(a) Blessy keeps the temperature of the water for each solid the same.

Explain why.

..... [1]

(b) Blessy thinks it is a good idea to repeat her investigation.

Explain why.

..... [1]

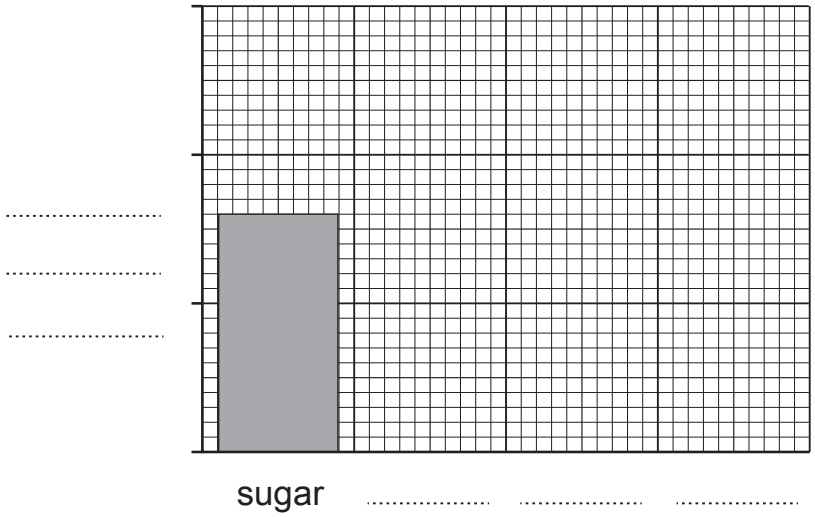
(c) Blessy has started to draw a bar chart of the results.

She has drawn the bar for sugar.

Complete the bar chart.

Include the

- scale on the y-axis
- label on the y-axis
- other three bars and their labels.



[3]

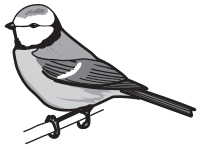
(d) Which solid is the **most** soluble in water?

..... [1]

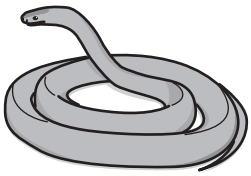
5 Look at the information about some living things.

For Teacher's Use

caterpillar eats leaf



bird eats caterpillar



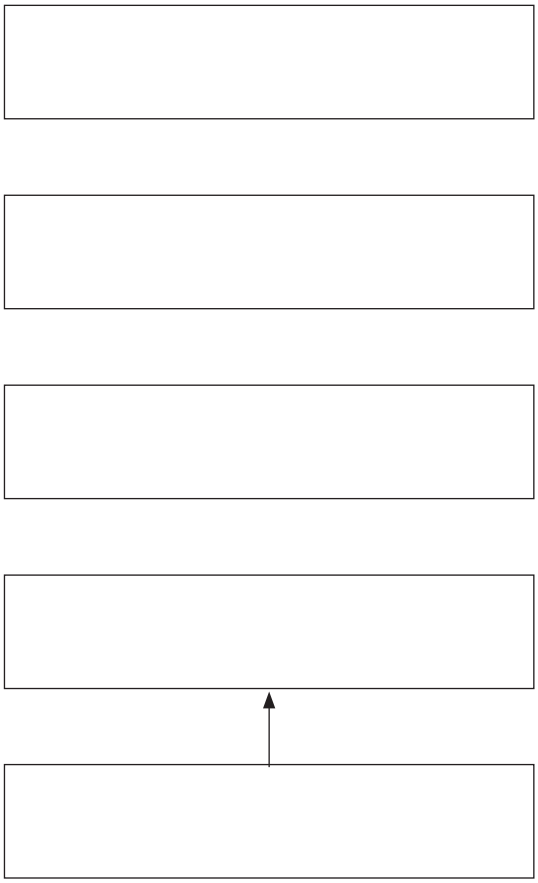
snake eats bird

owl eats snake

(a) Use this information to draw a food chain.

Draw arrows between the boxes to show the direction of energy flow.

The first arrow has been done for you.



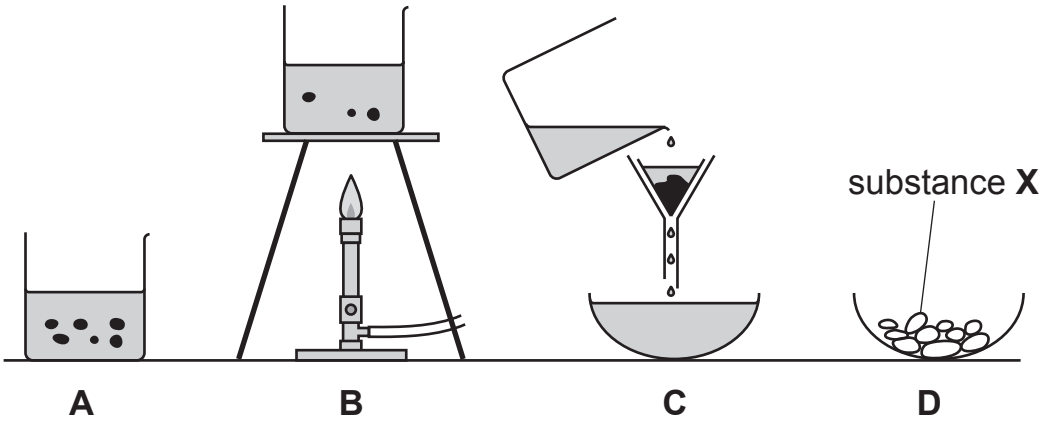
[2]

(b) Which living thing is the **producer** in this food chain?

..... [1]

6 Yuri wants to separate a mixture of salt, sand and water.

Here are the stages he uses.



(a) What **dissolves** in stage **B**?

Circle the correct answer.

salt **sand** **salt and sand** **water**

[1]

(b) What is substance **X**?

..... [1]

For Teacher's Use

7 Lily is learning about mass and weight.

(a) Complete her sentences.

Choose from the following words.

You can use each word once, more than once or not at all.

centimetres

kilograms

newtons

seconds

Mass is measured in …….. .

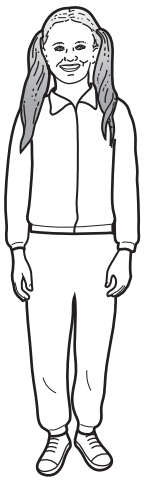
Weight is measured in …….. .

Force is measured in …….. .

[3]

(b) Lily has a picture of herself.

Draw a line with an arrow to show the direction of the force of gravity on Lily.



[1]

8 Ahmed adds water to different solids.

Here are his results.

solid	colour of solid	effect of adding water
A	white	forms a colourless solution
B	green	forms a green solution
C	white	forms a white cloudy mixture
D	grey	fizzes and forms a colourless solution
E	white	forms a colourless solution and gets colder
F	blue	forms a blue solution

(a) Only one solid can be separated from water by filtration.

Which one?

…….. [1]

(b) There is a reversible change when solid **A** is added to water.

Describe how you could reverse this change.

..... [1]

(c) Two of the solids have an irreversible change when added to water.

Write the letter of **one** of these solids.

……..

Explain how you can tell from the results.

.....

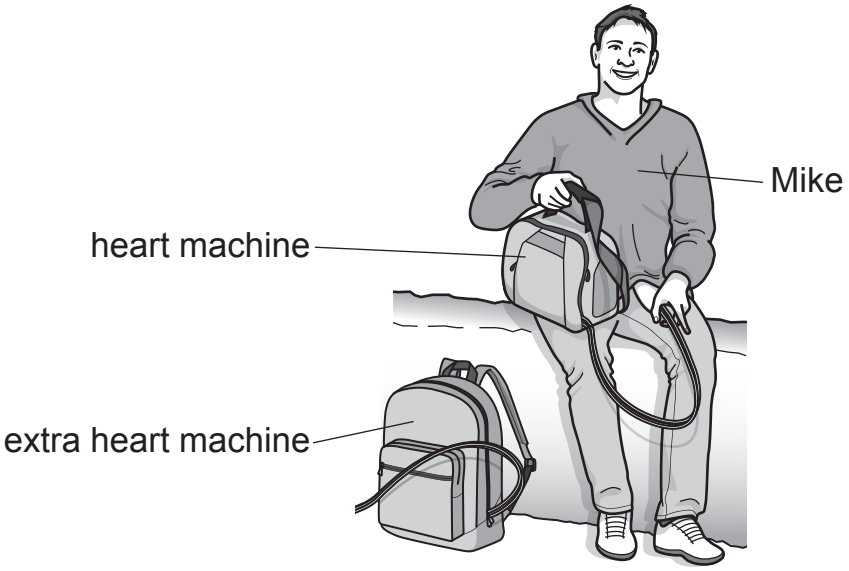
..... [2]

[Turn over

For Teacher's Use

9 Mike has a heart that does **not** work.

He uses a heart machine.



Mike must use the heart machine to stay alive.

(a) Explain what the heart machine does.

.....

.....

..... [2]

(b) Mike takes the extra heart machine with him when he goes outside.

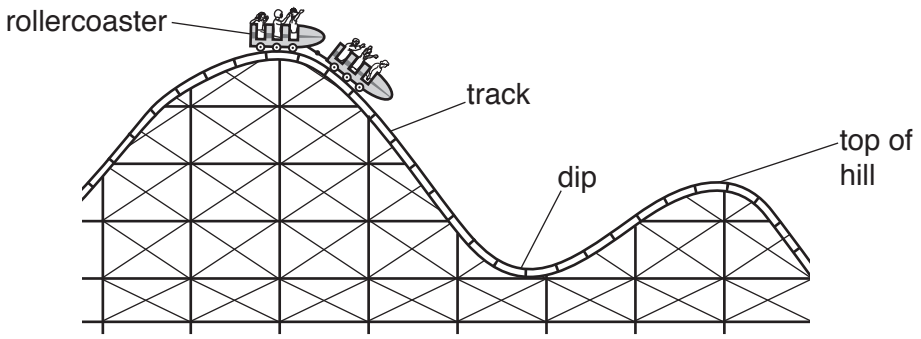
Explain why Mike needs an extra heart machine.

.....

..... [1]

10 This question is about a rollercoaster.

For Teacher's Use



Draw a line from the **statement** to the correct **explanation**.

statement	**explanation**
A rollercoaster is able to climb up the hill because …	… friction in the dip increases its movement.
	… its movement gives it the energy to get to the top of the hill.
	… there is **no** friction.
	… there is **no** air resistance in the dip.

[1]

11 Some materials can be recycled.

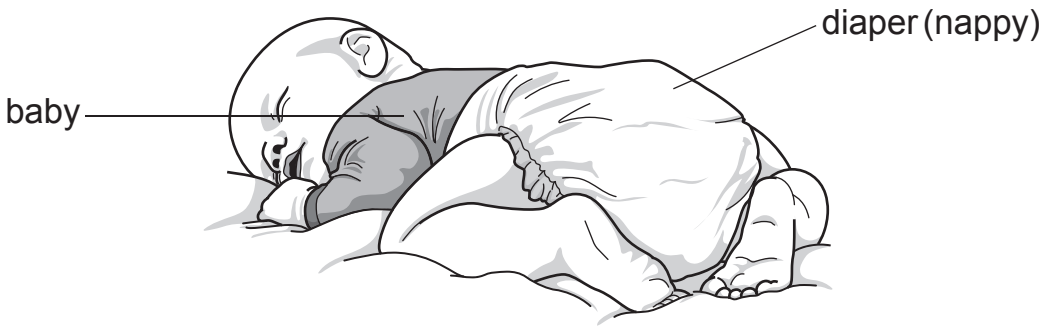
For Teacher's Use

Glass, plastic and metal can be recycled.

(a) Write down the name of **another** material that can be recycled.

..... [1]

(b) Some materials **cannot** be recycled.



The baby is wearing a diaper (nappy).

Complete the sentences.

This diaper (nappy) **cannot** be recycled because .....

..... .

This diaper will increase the waste in the environment if it is put in the rubbish.

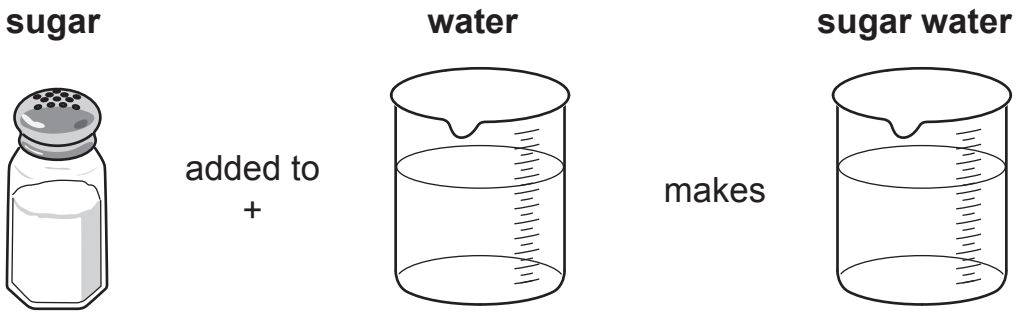
To reduce waste in the environment this diaper (nappy) can be .....

..... . [2]

For Teacher's Use

12 Sugar is added to water.

The sugar dissolves in water.



(a) Complete the sentences.

Choose from the list of words.

insoluble **soluble** **solution** **sugar** **water**

The solvent in sugar water is ..... .

The solute in sugar water is ..... .

Sugar dissolves in water because it is ..... .

[2]

(b) When sugar dissolves in water, is the sugar still in the water?

Circle the correct answer.

no **sometimes** **yes**

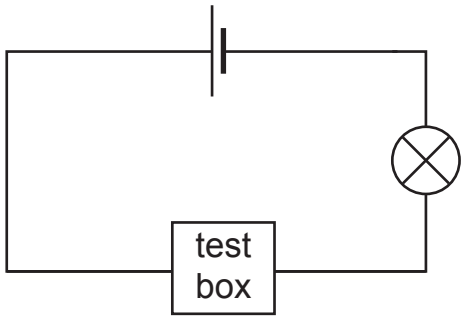
[1]

[Turn over

13 Pierre is testing which materials are electrical conductors.

For Teacher's Use

He builds this electrical circuit.



When a material is placed in the test box it is connected to the circuit.

(a) What must Pierre do to test each material?

Here are his instructions.

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

A Connect the circuit.

B Record the results and remove the material.

C Put the material into the test box.

D Collect a cell, lamp, test box and wires.

Put each letter in the correct order in the boxes.

first instruction ☐

☐

☐

last instruction ☐

[2]

(b) Pierre puts his results in a table.

material	does it conduct electricity?
steel	×
iron	✓
stone	×
plastic	×
lead	✓
copper	✓

Pierre thinks **one** of his results is incorrect.

He wants to test this material again.

Which material does he test again?

..... [1]

(c) Pierre makes a conclusion from his results.

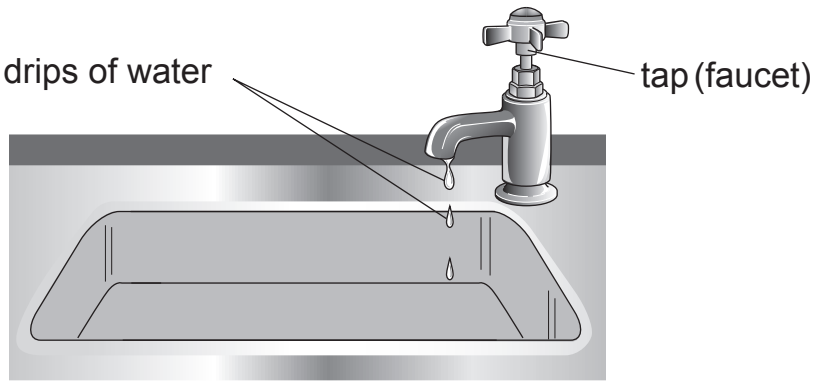
What conclusion does Pierre make?

..... [1]

For Teacher's Use

14 Aiko investigates where water is wasted in her school.

She looks at a tap (faucet) with drips of water.



Aiko collects drips of water from different taps (faucets) for 2 minutes.

(a) She measures the **volume** of water collected from each tap.

Write down the **name** of the apparatus she uses.

..... [1]

(b) Aiko writes down the results.

tap 4 = 3.8cm^3 **tap 3 = 2.9cm^3**

tap 2 = 1.8cm^3 **tap 5 = 3.3cm^3**

tap 1 = 0.0cm^3

Complete her table of results.

tap number	.....
1	.....
.....	1.8
3	.....
.....	.....
5	.....

[2]

(c) There are drips from **all** the taps (faucets).

One of the results is **wrong**.

Circle the result that is **wrong**.

tap 1 **tap 2** **tap 3** **tap 4** **tap 5**

Explain your answer.

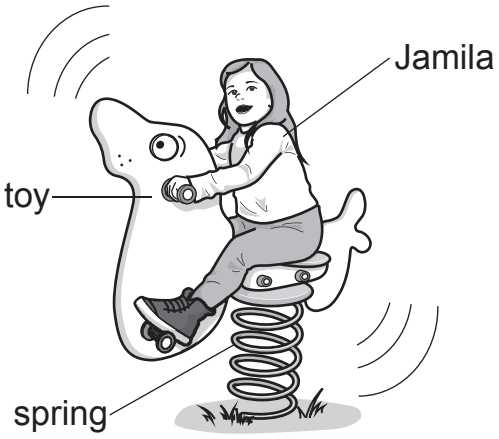
.....

..... [1]

15 Jamila has a toy with a spring.

For Teacher's Use

She makes the toy move upwards and downwards.



(a) Complete the sentence.

When the toy bounces up, the upward force is ……..…… than the downward force. [1]

(b) What does Jamila do to make the toy bounce **faster**?

Circle the correct answer.

increase the weight of the toy

push on the spring all of the time

push on the spring less often

push on the spring more often

use a longer spring

[1]

For Teacher's Use

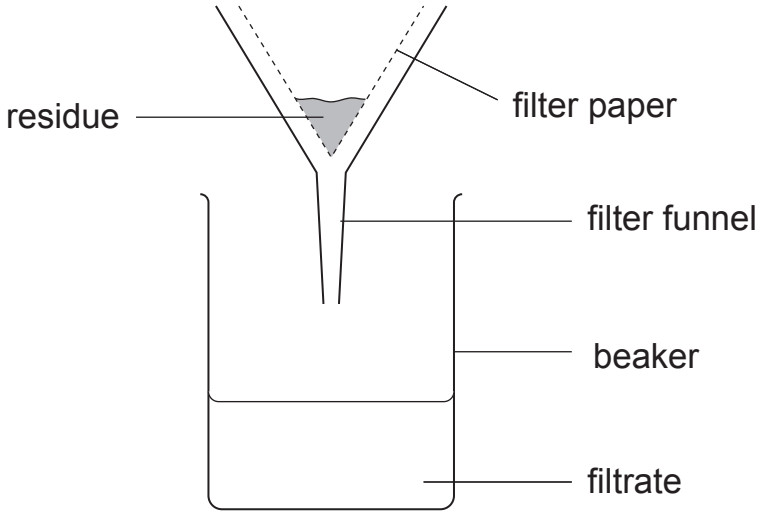
16 Copper sulfate is a blue solid that dissolves to make a blue solution.

Chen has a mixture of powdered copper sulfate and sand.

He adds water to this mixture and stirs for one minute.

Chen then filters the mixture.

This is the equipment he uses.



(a) Chen **cannot** use a sieve to separate the mixture of sand and copper sulfate.

Explain why.

.....

..... [1]

(b) What substance does the **residue** contain?

..... [1]

(c) What is the name of the **filtrate**?

..... [1]

(d) What colour is the **filtrate**?

..... [1]

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