

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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SCIENCE

0846/01

Paper 1

For Examination from 2012

SPECIMEN PAPER

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.

Answer **all** questions.

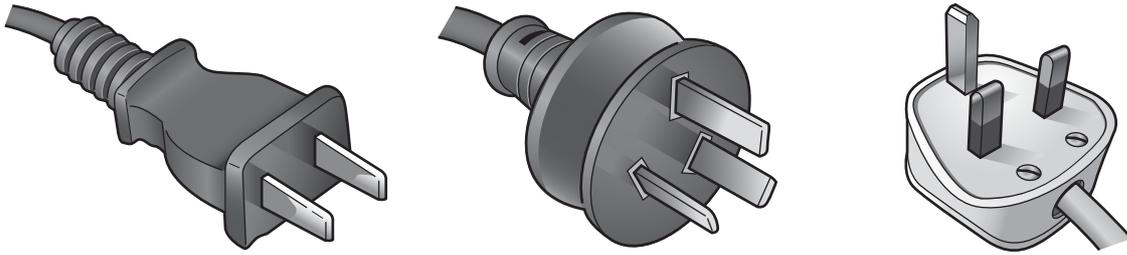
The number of marks is given in brackets [] at the end of each question or part question.

You should show all your working in the booklet.

For Examiner's Use	
1	
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17	
18	
19	
20	
Total	

This document consists of **20** printed pages.

1 (a) Look at the diagrams of the electric plugs.



Which metal is used for the wire inside these electrical plugs?

..... [1]

(b) Use **one** word to complete this sentence.

People often wear rubber boots when they use electrical tools. This is because rubber is a good electrical

[1]

2 Complete these sentences.
Choose words from the list.

- an echo a pulse a reflection vibrations waves**

(a) Sound is created by

[1]

(b) Sound travels as

[1]

(c) A reflected sound is called

[1]

3 Zara is investigating different materials.

For
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Use

First she wants to find out which is the hardest rock. She scratches each rock with a different object. She records whether her scratch made a mark.

This table shows her results.

Type of Rock	fingernail	coin	matchstick	plastic knife
Marble	no mark	mark	no mark	no mark
Sandstone	no mark	mark	no mark	mark
Talc	mark	mark	mark	mark
Granite	no mark	no mark	no mark	no mark

(a) Which is the hardest rock she tested?

..... [1]

(b) What evidence in the table shows that talc is the softest rock she tested?

..... [1]

(c) She does another test. She finds that both sandstone and talc are permeable.

What does *permeable* mean. Tick (✓) **one** box.

has a smooth texture

is hard and shiny

lets water soak through

stops water getting through

[1]

4 Animals and plants have different habitats.

For
Examiner's
Use**(a)** What is a *habitat*?Tick (✓) **one** box.

how they breathe

how they feed

what they eat

where they live

[1]

(b) Write **two** things a habitat must provide for an animal or plant.

1

2

[2]

5 Manuela is measuring the temperature of water in a beaker with a thermometer. She heats the water until it boils.

For
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Use

(a) She continues to heat the water. The water keeps on boiling.

What happens to the temperature of the water while it boils?
Underline your answer.

goes down

goes up

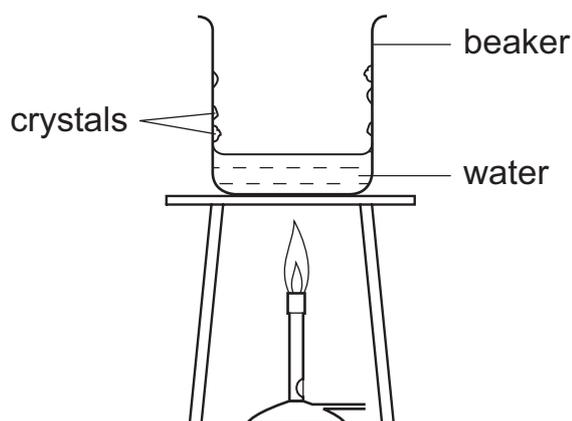
stays the same

[1]

(b) Why does the water level in the beaker drop as she continues her investigation?

..... [1]

(c) She notices white crystals forming on the inside wall of the beaker.



Where have the white crystals come from? Tick (✓) **one** box.

from chemicals washed out of the glass

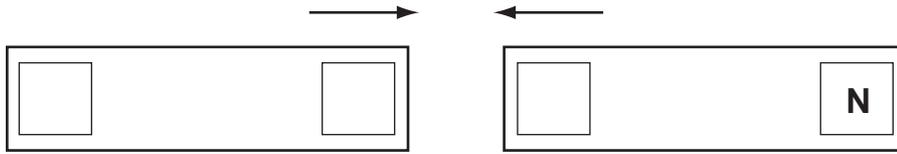
from the melting glass

They have condensed from gases in the room.

They were dissolved in the water.

[1]

6 Magnets have two poles, N and S.
These two magnets attract each other.



(a) Write the correct poles on the diagram. One has been done for you. [1]

(b) Name **one** metal that magnets attract.

..... [1]

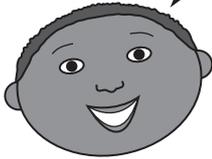
(c) Sometimes magnets repel each other.

What does *repel* mean?

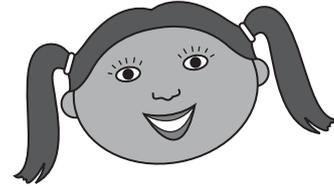
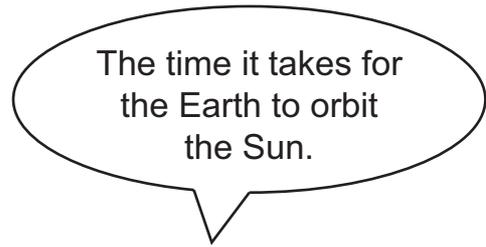
..... [1]

7 Four students are discussing the time periods, day and year.

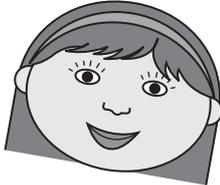
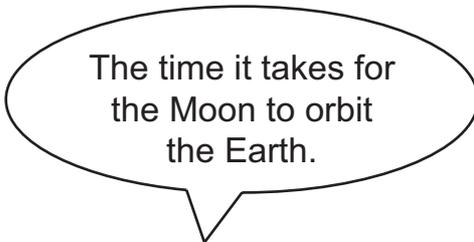
For
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Use



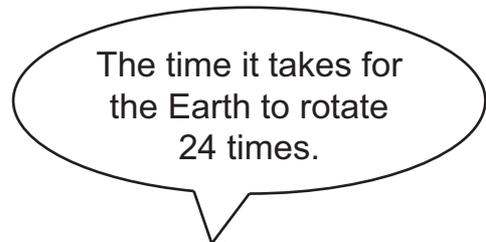
A



B



C



D

Which student makes the correct statement about:

(a) a year? [1]

(b) a day? [1]

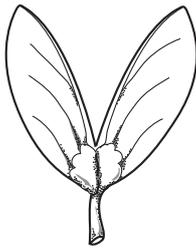
8 All flowering plants produce seeds.

For
Examiner's
Use

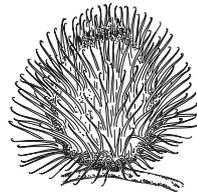
(a) Why do plants need to produce seeds? Underline the correct word.

fertilisation **germination** **growth** **reproduction** [1]

(b) Which seed can be spread by attaching to an animal's fur?
Tick (✓) **one** box.









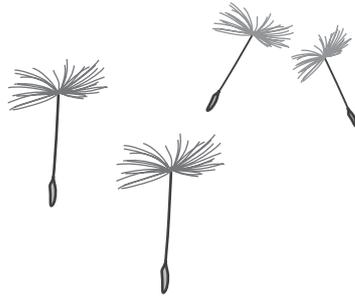
[1]

(c) What is the process called when seeds are spread away from a plant?

..... [1]

(d) Which statement **best** describes how these seeds are spread?
Tick (✓) **one** box.

For
Examiner's
Use



Animals spread the seeds in their droppings.

Birds shake out the seeds.

Water carries the seeds.

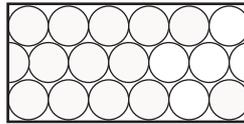
Wind blows the seeds.

[1]

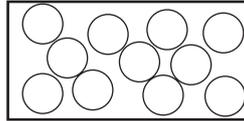
9 The diagrams show the arrangement of particles in solids, liquids and gases.

(a) Draw lines to match each word with the correct diagram.

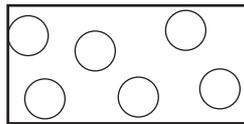
gas



solid



liquid



[1]

(b) The table shows some properties of a solid, liquid and gas.

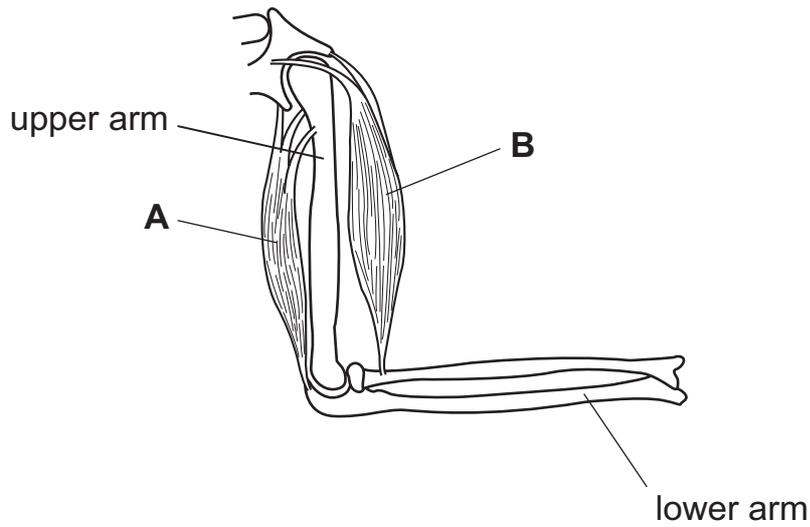
Tick (✓) the box to show if the property is of a solid, liquid or gas.

properties	solid	liquid	gas
Particles have lots of room to move around.			
It is runny and flows downwards.			
It can be cut and shaped.			

[3]

10 This drawing shows bones and muscles in the human arm.

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(a) What must the muscles do to raise up the lower arm?
Tick (✓) **one** box.

Both muscles **A** and **B** contract (shorten).

Both muscles **A** and **B** relax.

Muscle **A** contracts (shortens) and muscle **B** relaxes.

Muscle **B** contracts (shortens) and muscle **A** relaxes.

[1]

(b) Name **one** organ in the human body that is made from muscle.

..... [1]

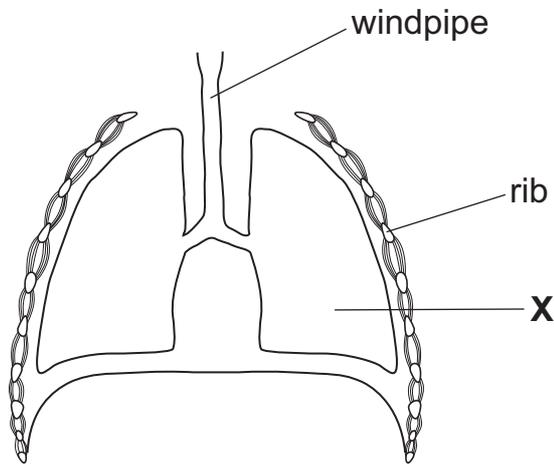
11 Hendrik is about to stand on a pillow made from very soft foam.



(a) Draw an arrow showing the direction of the push force from Hendrik on the pillow. [1]

(b) What might happen to the pillow when Hendrik stands on it?
..... [1]

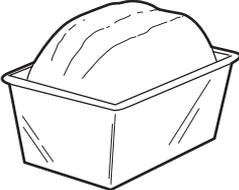
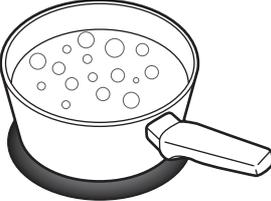
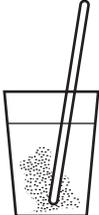
12 Look at the diagram.



What is the name of the organ X?
..... [1]

13 Tick (✓) to show if the change is reversible or non-reversible.

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process	reversible	non-reversible
 baking bread		
 boiling water		
 dissolving salt		

[1]

- 14 Ruth and Anna test the grip of different shoes of the same size. They put each shoe on a table and attach a forcemeter to measure the force needed to move the shoe.



- (a) Draw an arrow on the diagram to show the direction of the force that makes the shoe move. [1]

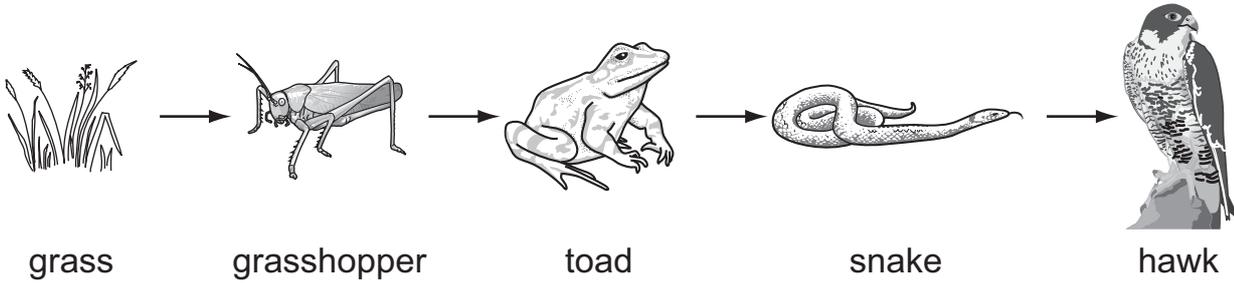
- (b) They record the forces needed to make each shoe move.

shoe	force in Newtons
A	0.5
B	2.1
C	1.4

Which shoe has the best grip?

..... [1]

15 Seth and Alex investigate food chains.
Look at the one they have drawn.



(a) How many consumers are there?

..... [1]

(b) Name the predator of the snake.

..... [1]

16 All living things have seven life processes.

Fill in the missing **two** life processes.

Nutrition

Movement

.....

Reproduction

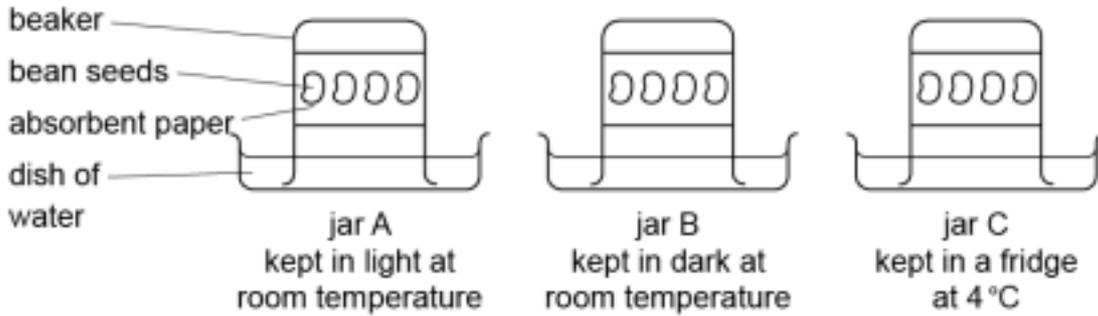
.....

Sensitivity

Respiration

[2]

17 Adam and Mary investigate some factors that affect germination of bean seeds. They set up their experiment as shown in these diagrams.



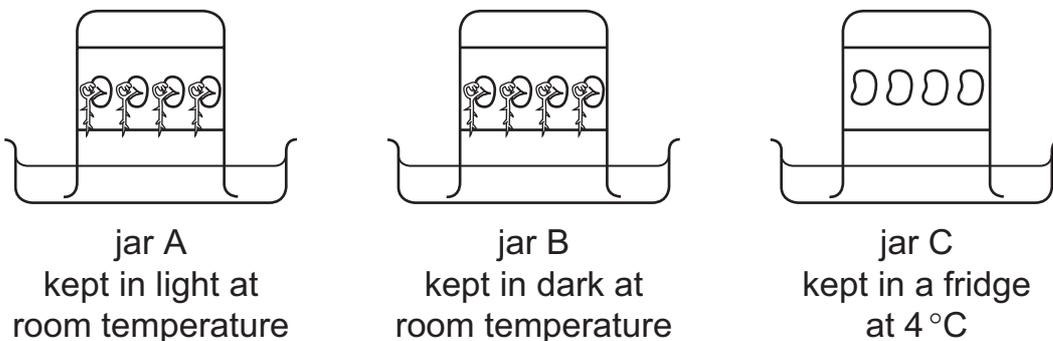
(a) Write **one** factor they vary in their experiment.

..... [1]

(b) Write **one** factor they keep the same in their experiment.

..... [1]

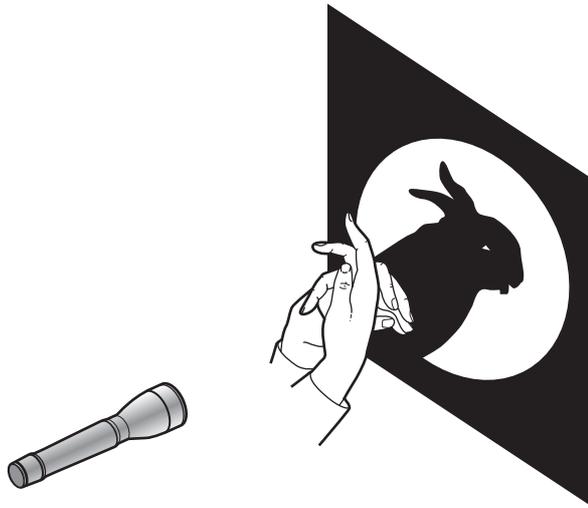
(c) After one week, they look at their bean seeds and record their results in these drawings.



They write a conclusion from their results. Complete their conclusion.

Beans need to germinate. [1]

- 18 Nadia is in a dark room with a torch.
She makes shapes with her fingers to make shadows on the wall.



- (a) Explain why her hand makes a dark shadow.

..... [1]

- (b) How can Nadia change the **size** of the shadow of her hand on the wall?
Tick (✓) **one** box.

make the room darker and lighter

move her hand closer to or further from the torch

put different coloured gloves on her hand

use a bigger or smaller torch

[1]

19 Petrus takes a cold glass of cola from the fridge.

He puts 3 cubes of ice into it.

He leaves the glass on a table in a warm room for 5 minutes.

He notices that the ice cubes have become smaller.

(a) Why have the ice cubes become smaller?

..... [1]

(b) The outside of the glass is now wet.

What is the reason for this?

Tick (✓) **one** box.

Water vapour from the air has condensed on the outside of the glass.

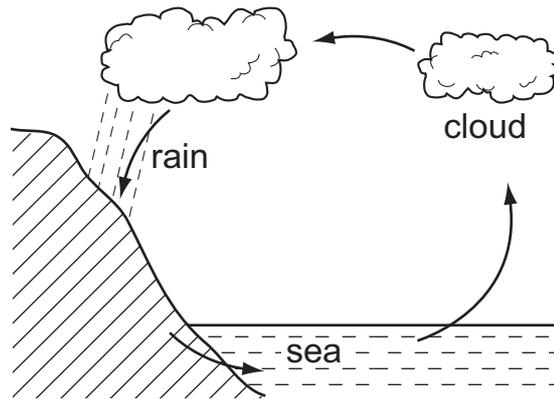
Water has condensed from inside the glass and gone into the air.

Water vapour has evaporated from the air and turned into a liquid.

The cola has evaporated and left water outside the glass.

[1]

20 In the water cycle, water can be a solid, liquid or gas.



(a) Choose words from the list to complete these sentences.

- condenses dissolves evaporates floats solidifies**

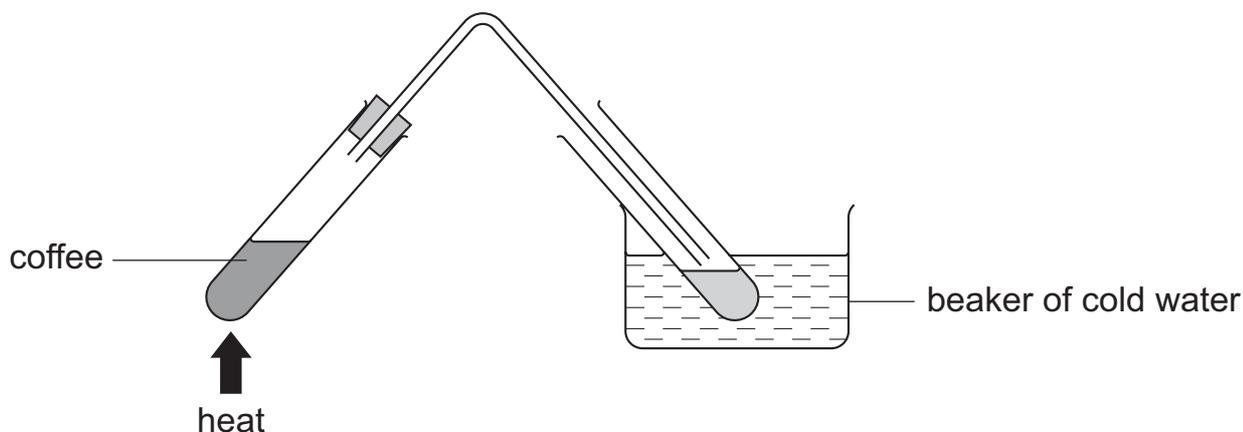
Salt is dissolved in sea water. When the water
from the sea, the salt is left behind. [1]

(b) Name the process that happens when liquid water forms in clouds.
..... [1]

21 Pierre heats some black coffee sweetened with sugar, using this apparatus.

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The coffee boils.



(a) A liquid collects in the test tube standing in the beaker.

What is the name of the liquid?

Tick (✓) the correct box.

concentrated coffee solution

dilute coffee solution

dilute sugar solution

water

[1]

(b) Why is the test tube that collects the liquid standing in a beaker of cold water?

..... [1]

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