

Please check the examination details below before entering your candidate information

Candidate surname

Other names

Centre Number

Candidate Number

**Pearson Edexcel International
Award in Primary**

Friday 29 May 2020

Morning (Time: 1 hour)

Paper Reference **JSC11/01**

Science

Achievement Test iPrimary

You must have:
a ruler

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided
– *there may be more space than you need.*

Information

- The total mark for this paper is 60.
- The paper is divided into two sections, Section A and Section B.
- The total mark for Section A is 45.
- The total mark for Section B is 15.
- The marks for **each** question are shown in brackets
– *use this as a guide as to how much time to spend on each question.*
- Candidates may use a calculator.

Advice

- Read each question carefully before you start to answer it.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►

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SECTION A

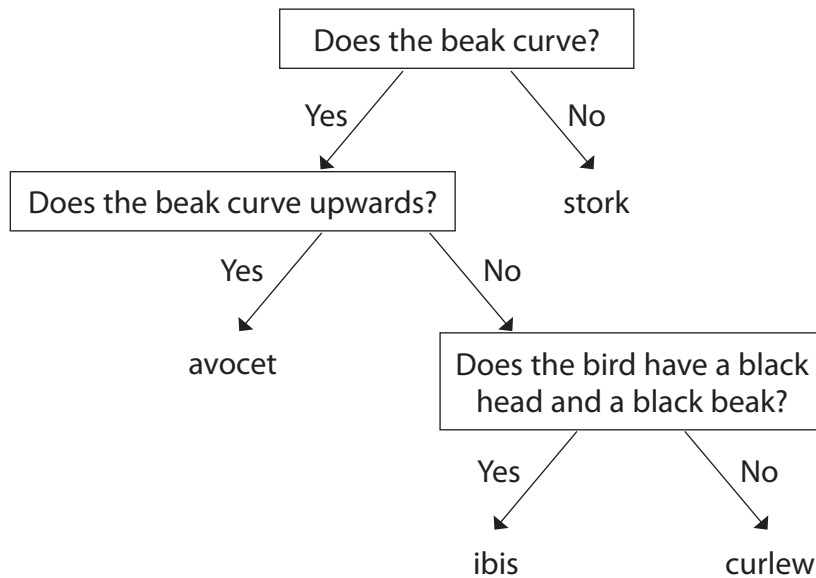
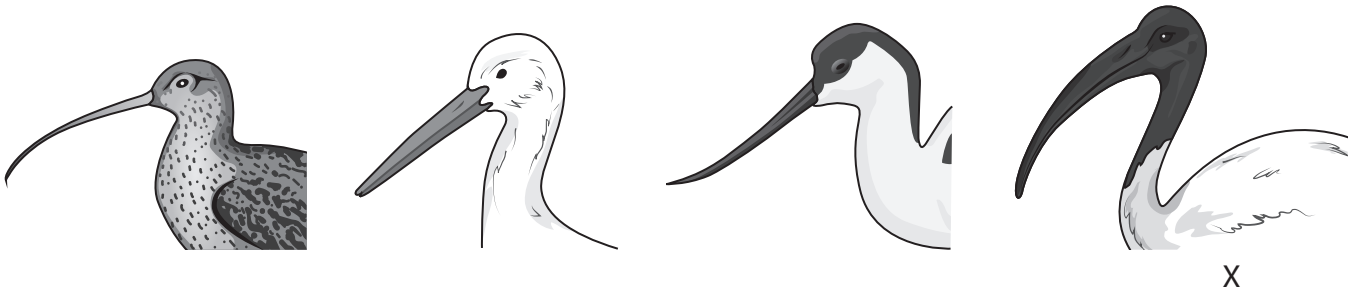
Answer ALL questions.

For questions 1–10 put a cross in one box ☒ to indicate your answer.
If you change your mind, put a line through the box ☒ and then put a cross in another box ☒.

Each question is worth one mark.

1 The diagrams show the heads of four birds, and a key to identify the birds. One of the birds has been labelled X.

Use the key to identify bird X.



What is bird X?

- A an avocet
- B a curlew
- C an ibis
- D a stork

(Total for Question 1 = 1 mark)



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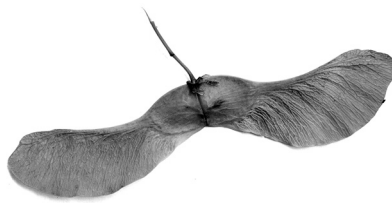
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2 Which word describes the change taking place as a solid becomes a liquid?

- A condensing
- B boiling
- C evaporating
- D melting

(Total for Question 2 = 1 mark)

3 The picture shows a sycamore seed.



(Source: © MarcelClemens/Pearson Asset Library)

What is the main way that sycamore seeds are dispersed?

- A by animals
- B by explosion
- C by water
- D by wind

(Total for Question 3 = 1 mark)

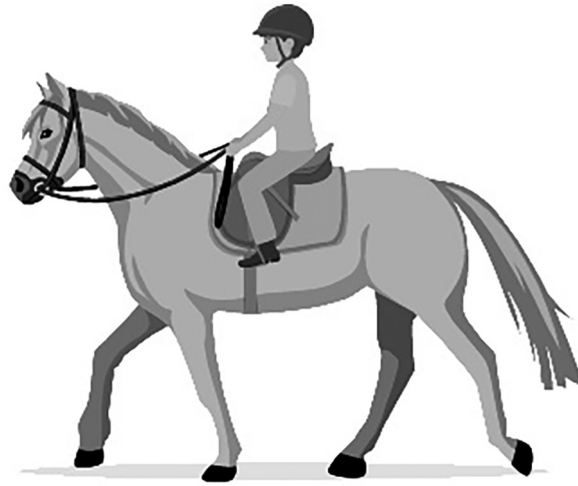
4 What will reduce the speed of a boat?

- A heat
- B light
- C magnetism
- D water resistance

(Total for Question 4 = 1 mark)



5 The picture shows a horse and rider.



(Source: © SunshineVector/Pearson Asset Library)

Why are both the horse and the rider classified as vertebrates?

- A they both have backbones
- B they both have four limbs
- C they both have hearts
- D they both reproduce

(Total for Question 5 = 1 mark)

6 Why is there night and day on the Earth?

- A because the Earth is in orbit around the Sun
- B because the Sun is in orbit around the Earth
- C because the Earth is spinning on its axis
- D because the Sun is spinning on its axis

(Total for Question 6 = 1 mark)

7 Why are plants a very important part of a food chain?

- A because plants do not eat anything
- B because plants make their own food
- C because plants are herbivores
- D because plants are predators

(Total for Question 7 = 1 mark)



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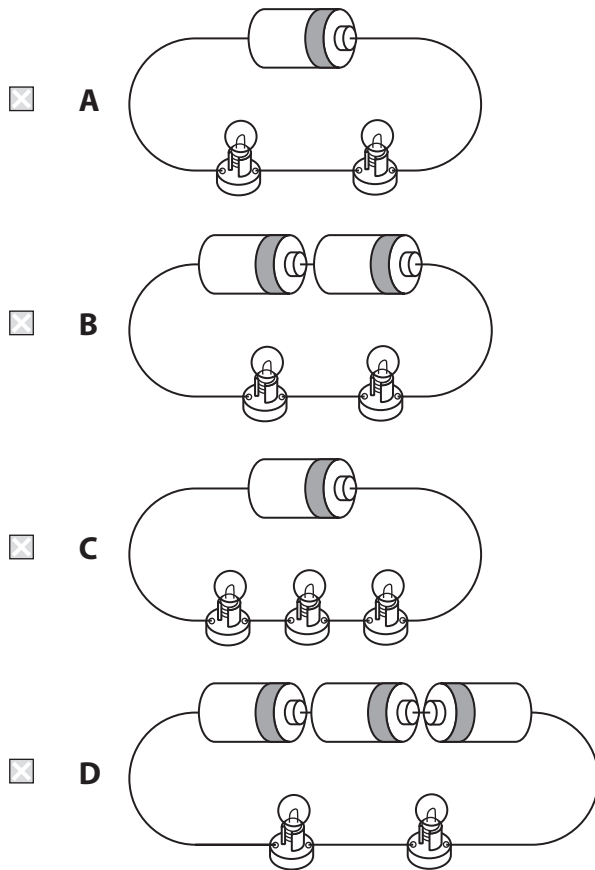
8 Which group of animals has warm blood, hair and feeds their young on milk?

- A amphibians
- B birds
- C insects
- D mammals

(Total for Question 8 = 1 mark)

9 In which circuit will the bulbs be brightest?

All cells and all bulbs are identical.



(Total for Question 9 = 1 mark)



10 When sand is put into a jug, it takes the shape of the jug.

Sand can also be poured from one jug into another jug.

Which is the best description of sand?

- A sand is a solid but can behave like a liquid in some ways
- B sand is a liquid but can behave like a gas in some ways
- C sand is a solid but can behave like a gas in some ways
- D sand is a gas but can behave like a liquid in some ways

(Total for Question 10 = 1 mark)

11 Chalk is an insoluble substance.

(a) State what is meant by **insoluble**.

(1)

(b) Describe how a mixture of chalk and water can be separated.

(2)

(Total for Question 11 = 3 marks)



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12 Draw **one** straight line from each plant part to its function.

plant part

leaves

roots

stem

function

to transport water and nutrients

to manufacture food

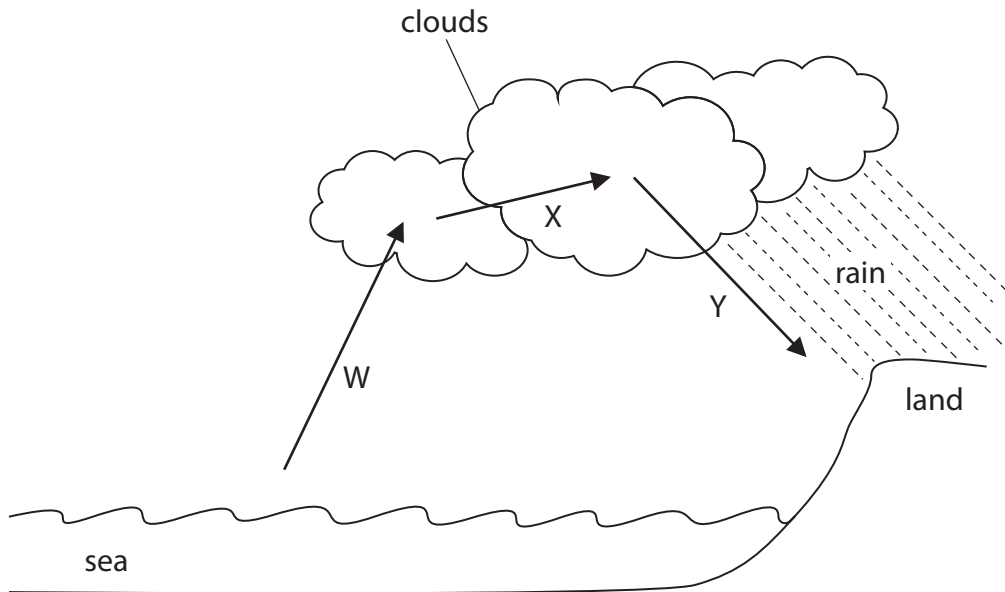
to anchor the plant and to take in water and nutrients

(Total for Question 12 = 2 marks)



For questions 13–18 put a cross in one box ☒ to indicate your answer.
If you change your mind, put a line through the box ☒ and then put a cross in another box ☒.

13 The diagram shows three stages of the water cycle, labelled W, X and Y.



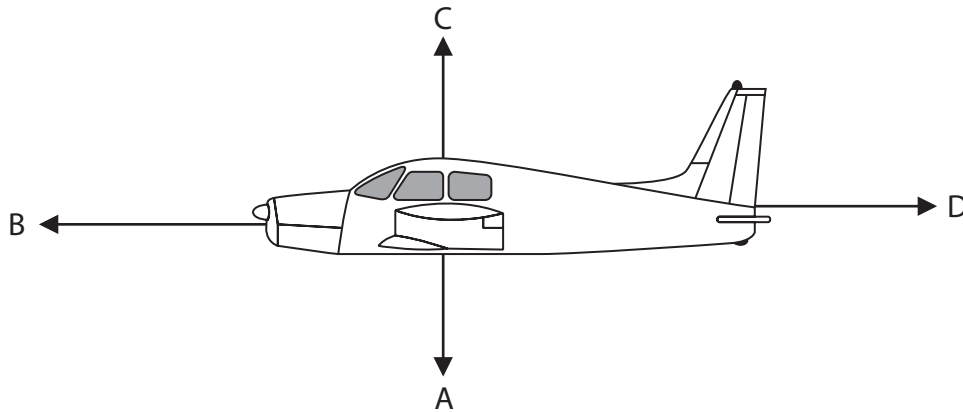
Which row of the table correctly names the three stages W, X and Y?

	W	X	Y
<input type="checkbox"/> A	condensation	evaporation	precipitation
<input type="checkbox"/> B	evaporation	condensation	precipitation
<input type="checkbox"/> C	precipitation	condensation	evaporation
<input type="checkbox"/> D	evaporation	precipitation	condensation

(Total for Question 13 = 1 mark)



14 The diagram shows four forces, A, B, C and D, acting on a plane.



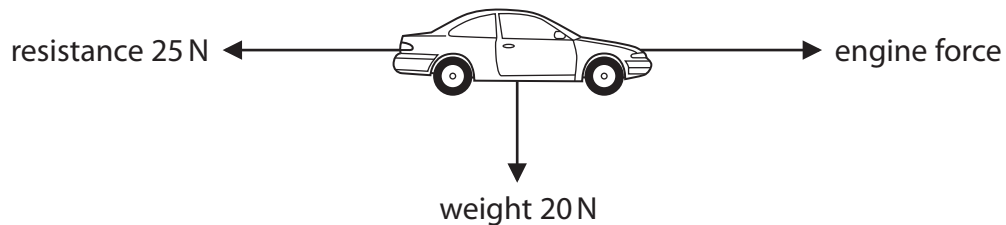
Which arrow shows the force of gravity acting on the plane?

- A
- B
- C
- D

(Total for Question 14 = 1 mark)

15 The diagram shows some of the forces acting on a model car.

The forces on the model car are balanced.



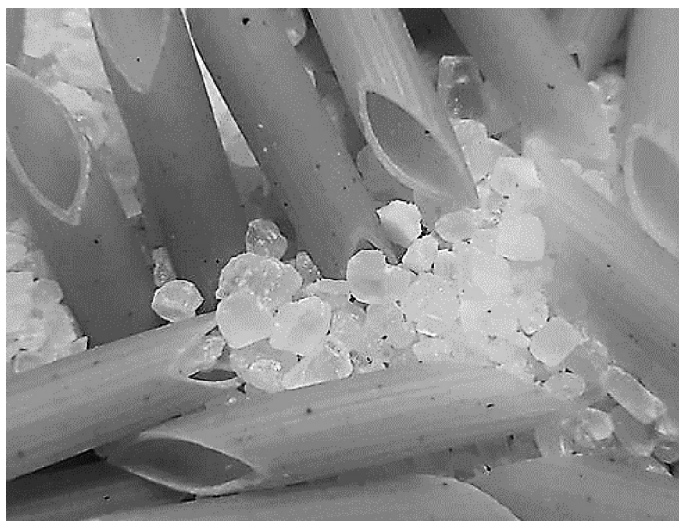
What is the size of the engine force?

- A 0 N
- B 20 N
- C 25 N
- D 45 N

(Total for Question 15 = 1 mark)



16 The photograph shows some pasta mixed up with some salt crystals.



What is the best way to separate the pasta from the salt crystals?

- A evaporating
- B filtering
- C magnetism
- D sieving

(Total for Question 16 = 1 mark)

17 Which is a source of light?

- A a candle
- B a mirror
- C the Moon
- D a tree

(Total for Question 17 = 1 mark)

18 Which of these describes respiration?

- A breathing out used air from the lungs
- B breathing oxygen from the air into the lungs
- C pumping blood containing oxygen around the body
- D the use of oxygen by the organs of the body

(Total for Question 18 = 1 mark)



19 Some microorganisms on food can cause food poisoning.

Give **two** ways of reducing the risk of food poisoning from microorganisms.

(2)

1

.....

2

.....

(Total for Question 19 = 2 marks)

20 Changes can be reversible or irreversible.

Complete the table by ticking (✓) the correct box for each change. The first one has been done for you.

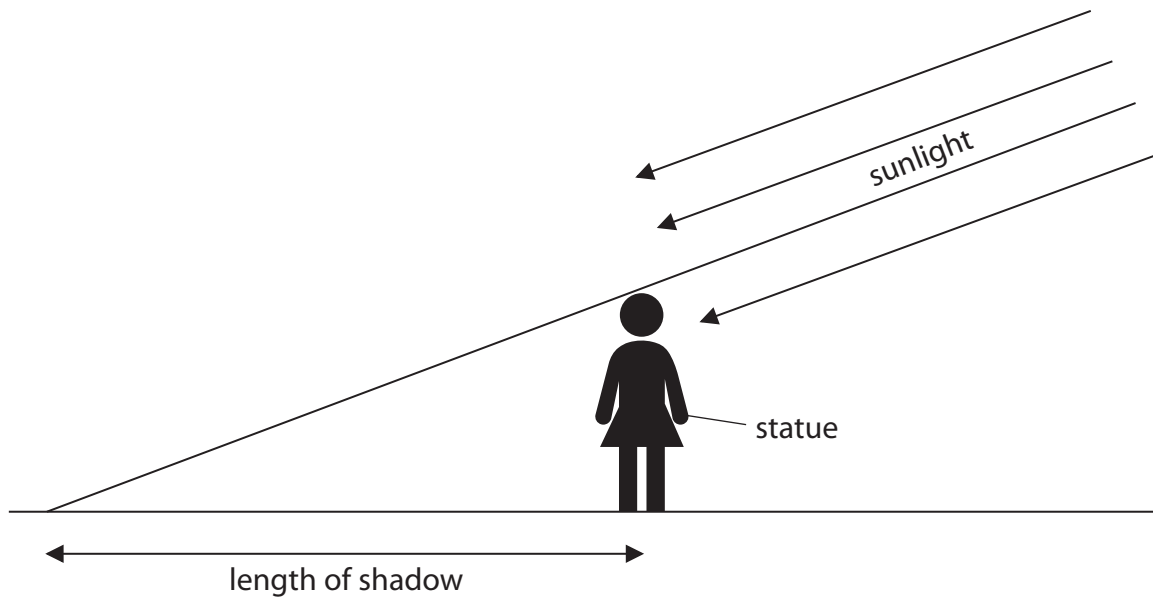
Change	Reversible	Irreversible
evaporating water	✓	
dissolving sugar in tea		
frying an egg		
iron rusting		
melting chocolate		

(2)

(Total for Question 20 = 2 marks)



21 A student measures the length of the shadow made by a statue at three different times of the day.



Draw **one** straight line from each time of day to the most likely length of the shadow at that time.

(2)

time of day	length of shadow
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">11.00 am</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">125 cm</div>
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">midday</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">222 cm</div>
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">7.00 pm</div>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;">85 cm</div>

(Total for Question 21 = 2 marks)



- 22 The photograph shows a racing cyclist wearing a specially shaped helmet and crouching low over the handlebars.



(Source: © MediaWorldImages / Alamy Stock Photo)

- (a) Explain how the specially shaped helmet and crouching low over the handlebars help the cyclist to go faster.

(2)

.....

.....

.....

.....

- (b) Here are five statements about a cyclist's pulse rate when riding in a race.

Tick (✓) the **one** statement that is correct.

(1)

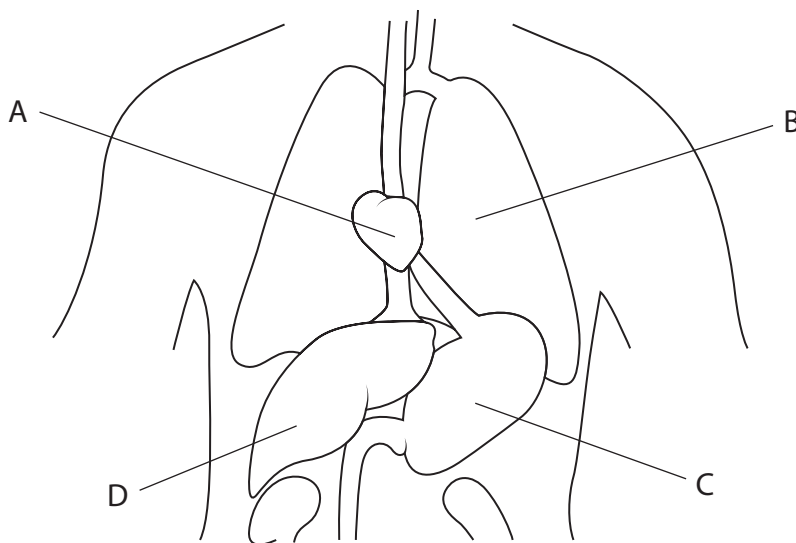
Statement	Correct
their pulse rate will decrease because they are crouching	<input type="checkbox"/>
their pulse rate will decrease because they are breathing quickly	<input type="checkbox"/>
their pulse rate will increase because their muscles need more oxygen	<input type="checkbox"/>
their pulse rate will increase because they are very fit	<input type="checkbox"/>
their pulse rate will stay the same because they are crouching	<input type="checkbox"/>

(Total for Question 22 = 3 marks)



For questions 23–26 put a cross in one box ☒ to indicate your answer.
If you change your mind, put a line through the box ☒ and then put a cross in another box ☒.

23 The diagram shows some of the organs, labelled A, B, C and D, in the human body.



Which organ is the lung?

- A organ A
 B organ B
 C organ C
 D organ D

(Total for Question 23 = 1 mark)

24 Which row of the table shows three microorganisms?

<input type="checkbox"/> A	ant	bacteria	yeast
<input type="checkbox"/> B	yeast	bacteria	virus
<input type="checkbox"/> C	bacteria	moss	virus
<input type="checkbox"/> D	moss	yeast	ant

(Total for Question 24 = 1 mark)






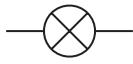




25 A cup of instant coffee is made by adding coffee powder and sugar to hot water. This mixture is then stirred with a spoon to form a solution.

What is the solvent in this process?

- A the coffee powder
- B the sugar
- C the water
- D the spoon

(Total for Question 25 = 1 mark)

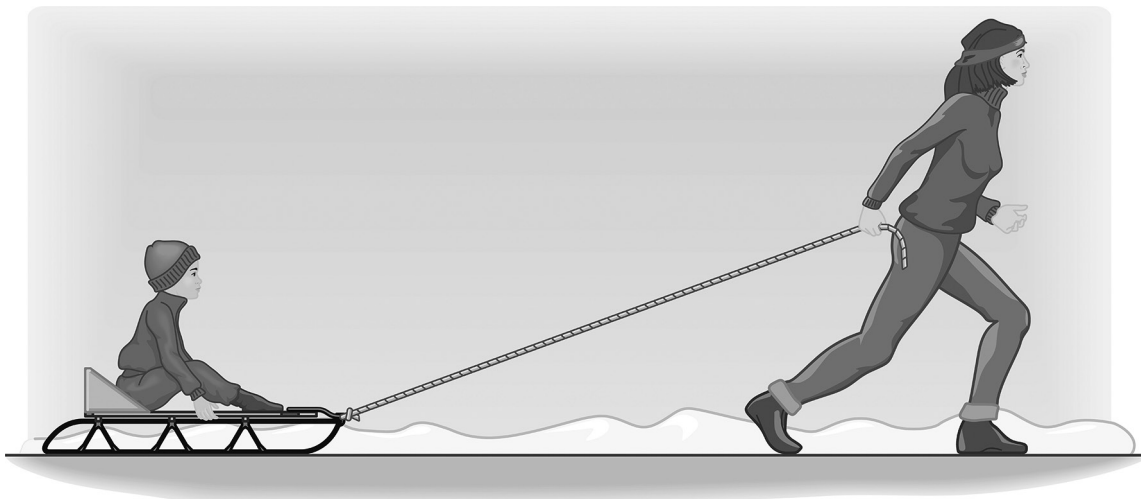
26 Which row of the table shows the correct circuit symbols for a bulb and a cell?

<input type="checkbox"/> A		
<input type="checkbox"/> B		
<input type="checkbox"/> C		
<input type="checkbox"/> D		

(Total for Question 26 = 1 mark)



27 When a sledge is being pulled, friction can be both useful and not useful.



(Source: © Emre Terim/Shutterstock)

Give **one** place where friction is useful and **one** place where friction is not useful when a sledge is being pulled.

(2)

Useful.....

Not useful.....

(Total for Question 27 = 2 marks)

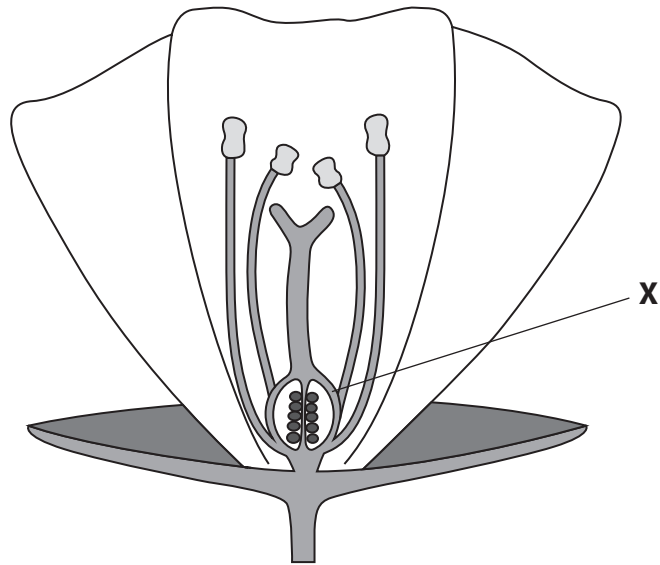
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28 The diagram shows some parts of a flower.



(a) Name the part labelled **X**.

(1)

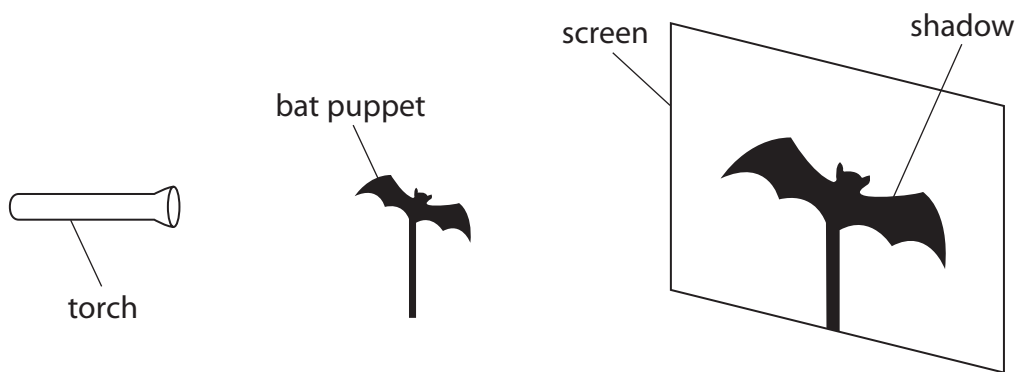
(b) Describe what happens at the part labelled **X**.

(2)

(Total for Question 28 = 3 marks)



29 The diagram shows the shadow of a bat puppet on a screen.



(a) State **one** way the shadow on the screen could be made bigger.

(1)

(b) The words in the box describe materials that might be used to make the bat puppet.

dull opaque shiny transparent

Choose a word from the box to complete the following sentence.

To form a shadow, the puppet must be made of a material that is (1)

(Total for Question 29 = 2 marks)



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30 A student sets up an experiment to find the best conditions for growing bean plants.

The student sets up eight plant pots.

Each pot contains six bean seeds.

Here are the student's results.

	Pot contains	Where the pot was placed	Results after two weeks	
			Average plant height	Observation
pot 1	moist soil	in the dark	7.5 cm	6 plants growing no leaves thin white stems
pot 2	dry soil	in the dark	no plants seen	
pot 3	moist sand	in the dark	5.8 cm	6 plants growing no leaves thin white stems
pot 4	dry sand	in the dark	no plants seen	
pot 5	moist soil	in daylight	6.8 cm	6 plants growing large green leaves developing green stems
pot 6	dry soil	in daylight	no plants seen	
pot 7	moist sand	in daylight	5.4 cm	6 plants growing small pale leaves developing yellow stems
pot 8	dry sand	in daylight	no plants seen	

The student concludes that beans will grow best in moist sand in daylight.

Explain whether or not the results support the student's conclusion.

(2)

.....

.....

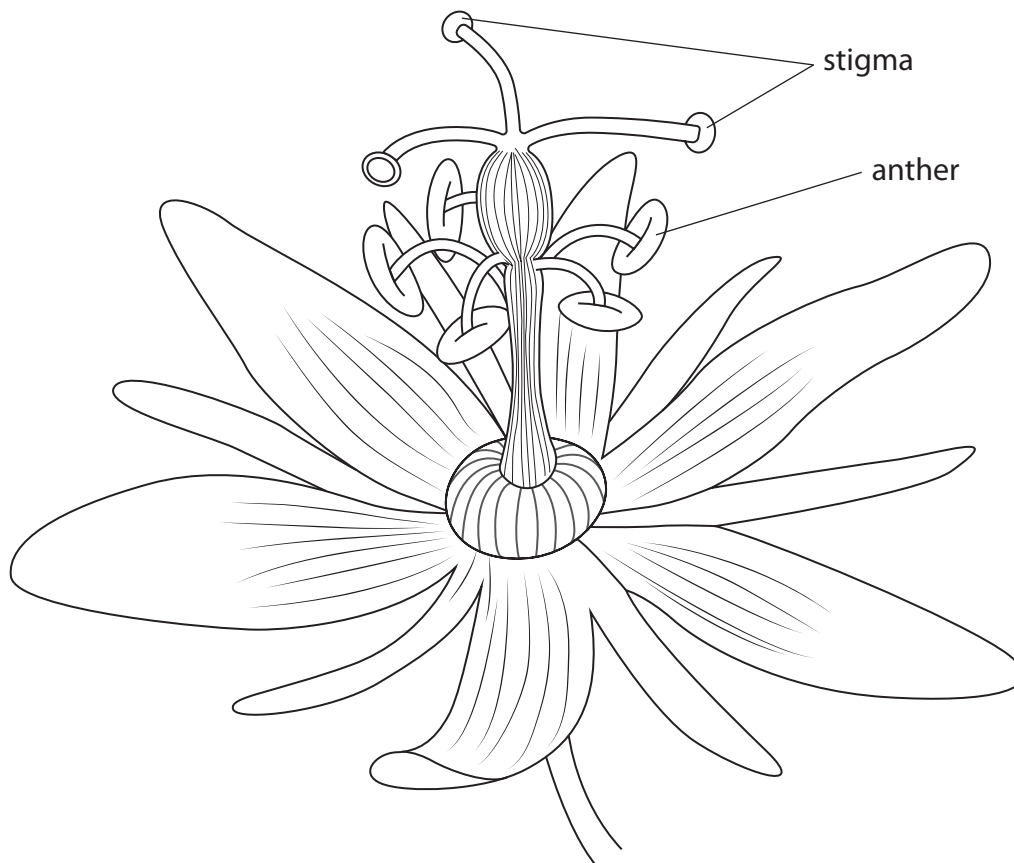
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.....

(Total for Question 30 = 2 marks)



31 The diagram shows a flower that is adapted for wind pollination.



Explain how the flower is adapted for wind pollination.

(2)

.....

.....

.....

.....

(Total for Question 31 = 2 marks)

TOTAL FOR SECTION A = 45 MARKS

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SECTION B

Answer ALL the questions. Write your answers in the spaces provided.

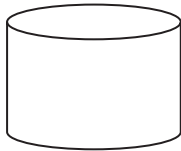
32 A student has three different containers, A, B and C.

The student investigates to see if the diameter of the container affects how quickly water evaporates.

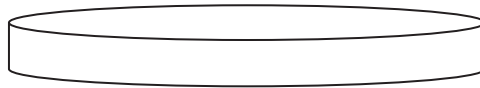
Each container has a different diameter but they all hold 150 cm^3 of water.

The student puts the three containers, each containing 150 cm^3 of water, on the same windowsill.

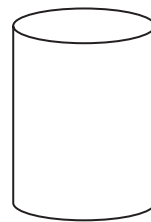
After four days the student measures the volume of water left in each container.



A



B



C

(a) Name the piece of equipment the student should use to measure the volume of the water.

(1)

(b) Name **two** things the student did to make the investigation fair.

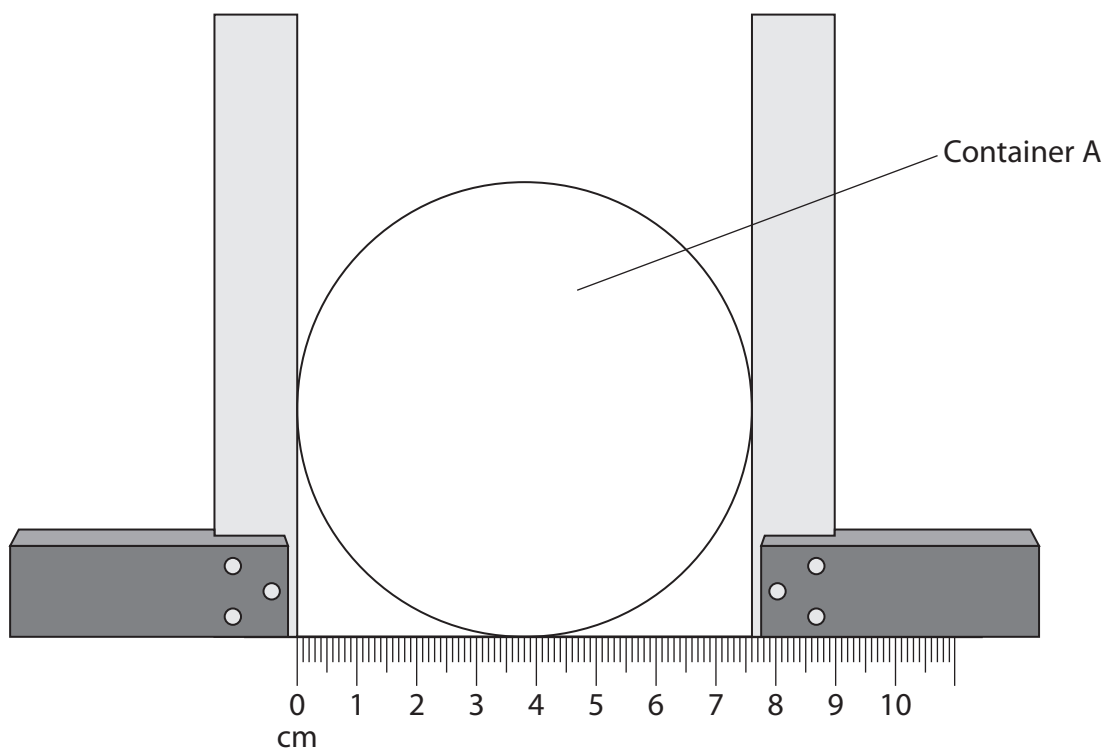
(2)

1

2



(c) The diagram shows how the student measured the diameter of Container A.



Add the diameter of Container A to the table of results.

(1)

Table of results

Container	Diameter in centimetres (cm)	Volume of water at start in cm ³	Volume of water at end in cm ³	Volume of evaporated water in cm ³
A	150	112	38
B	20.6	150	80	70
C	5.3	150	127	23

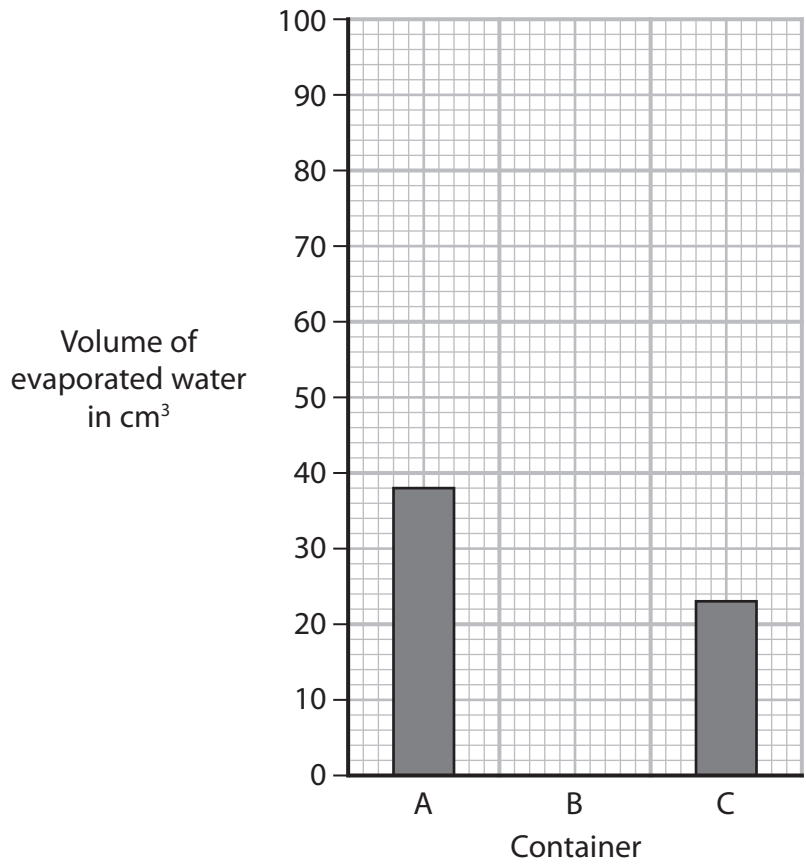


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(d) The student shows the results on a bar chart.



Complete the bar chart by adding the result for Container B.

(1)

(Total for Question 32 = 5 marks)

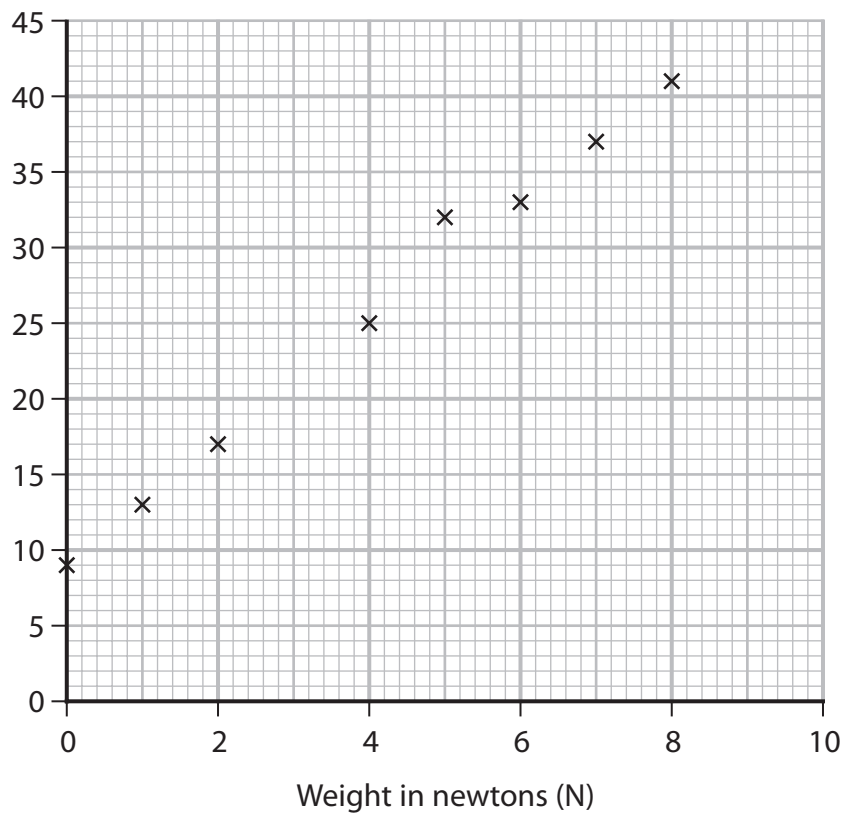
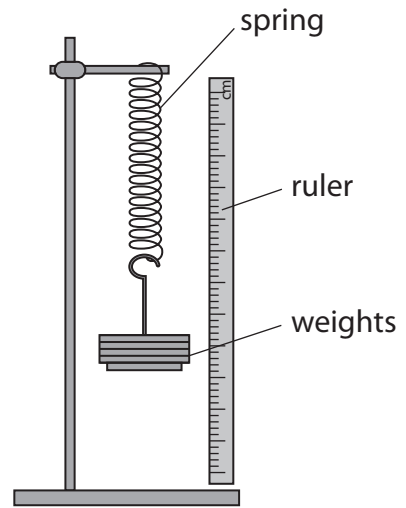


33 Some students investigate what happens to the length of a spring when different weights are hung from it.

The students start by measuring the length of the spring with no weights on it.

They then add weights, one at a time, and measure the length of the spring each time.

Their results are shown on the graph.



The students forgot to label one of the axes on their graph.

- (a) Add the missing label to the axis on the graph. (1)
- (b) (i) Circle the result that looks odd compared to the other results. (1)
- (ii) Complete the graph by drawing a straight line through the points. You should ignore the result that looks odd. (1)

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(c) (i) What conclusion can the students make about the effect of adding weights to the length of the spring?

(2)

.....

.....

.....

.....

(ii) Predict, using the graph, what the length of the spring will be when a weight of 3 N is hung from it.

(1)

length = cm

(Total for Question 33 = 6 marks)



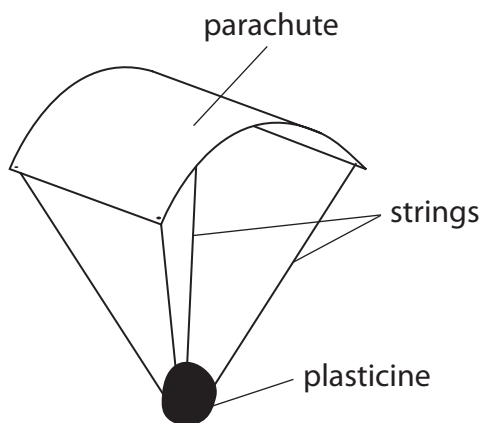
P 6 5 7 5 2 A 0 2 5 2 8

34 A student investigates to see if the size of a parachute affects the time taken for it to fall to the floor.

The student makes six different sized parachutes.

Each parachute is dropped once from a height of 2 m.

The student measures the time taken for the parachute to fall to the floor.



(a) Give the name of **one** piece of equipment the student will need to take their measurements.

(1)

(b) The investigation needs to be a fair test.

Tick **two** boxes to show what should be kept the same throughout the experiment to make it a fair test.

(2)

colour of parachute

height dropped from

size of parachute

time taken to fall

weight of plasticine



(c) Give **one** thing the student could do to improve the reliability of the results.

(1)

(Total for Question 34 = 4 marks)

TOTAL FOR SECTION B = 15 MARKS

TOTAL FOR PAPER = 60 MARKS

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