



Cambridge International Examinations
Cambridge Primary Checkpoint

CANDIDATE
NAME

CENTRE
NUMBER

--	--	--	--	--

CANDIDATE
NUMBER

--	--	--	--



SCIENCE

0846/02

Paper 2

April 2018

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.

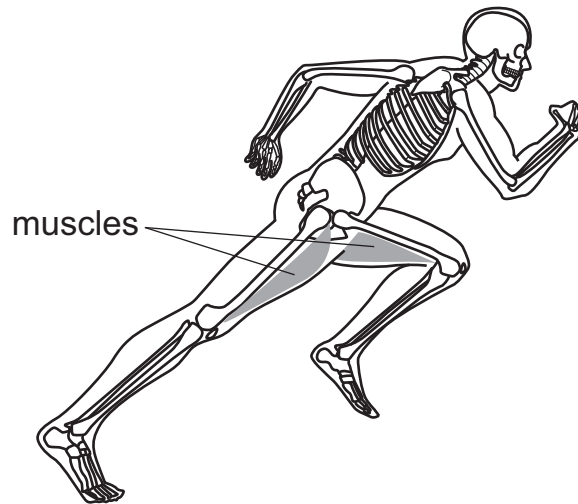
DO **NOT** WRITE IN ANY BARCODES.

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 **24** printed pages.

1 Oliver likes running.



The picture shows the skeleton inside his body.

The picture shows two muscles in his legs.

(a) What are the muscles attached to?

Circle the correct answer.

blood

bones

fat

other muscles

skin

[1]

(b) Complete the sentence.

When Oliver runs the muscles in his legs move because the muscles

..... [1]

3

2 Blessy is learning about plant life cycles.

Put the words in order.

The first one has been done for you.

fertilisation

germination

pollination

seed production

[1]

3 Yuri finds some information about a famous scientist.

Galileo explored the solar system and the stars.

He used a piece of apparatus to look at the stars.

What apparatus did Galileo use?

Circle the correct answer.

glass block

magnifying glass

microscope

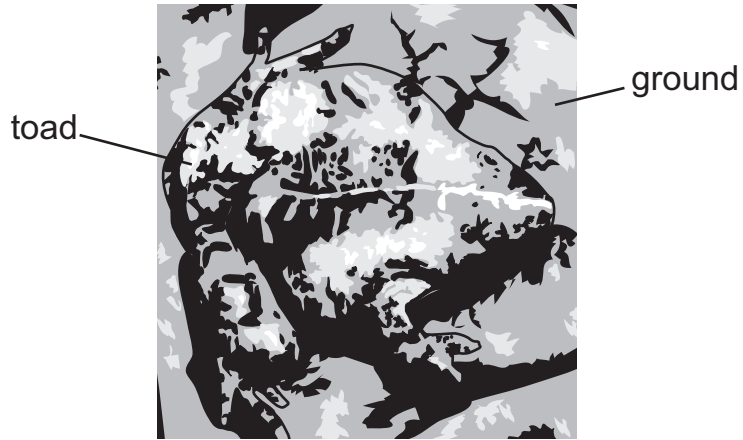
mirror

telescope

[1]

4 Animals are suited to where they live.

(a) Toads live on the ground.



Complete the sentence.

Choose from the following words.

it has food

it is camouflaged

it is dry

it is cold

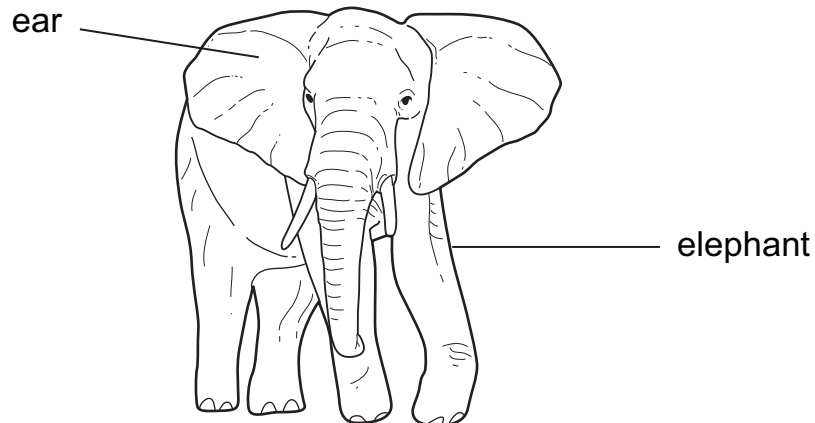
it is hot

The **colour** of the toad makes it suited to living in its habitat because

.....

[1]

(b) Elephants live in hot countries.



Describe how the **ears** of the elephant make it suited to living in its habitat.

Circle the best answer.

they are covered in hair to keep cool

they are covered in hair to keep warm

they are grey to keep cool

they sometimes flap to keep cool

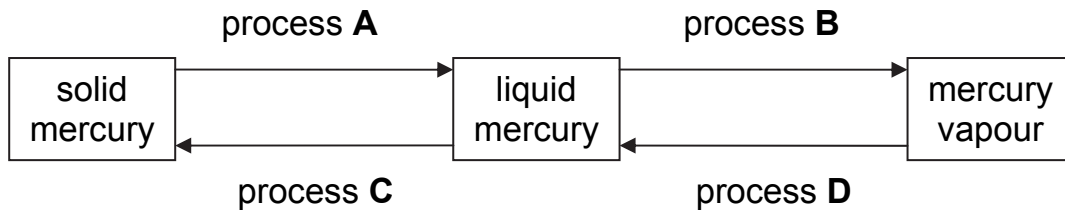
they stay still to keep warm

[1]

5 Mercury vapour is very poisonous.

Mercury is a silver coloured liquid at room temperature.

Liquid mercury has to be cooled to make solid mercury.



Complete the sentences.

(a) Process **A** changes solid mercury into liquid mercury.

This process is [1]

(b) Process **B** changes liquid mercury into mercury vapour.

This process is [1]

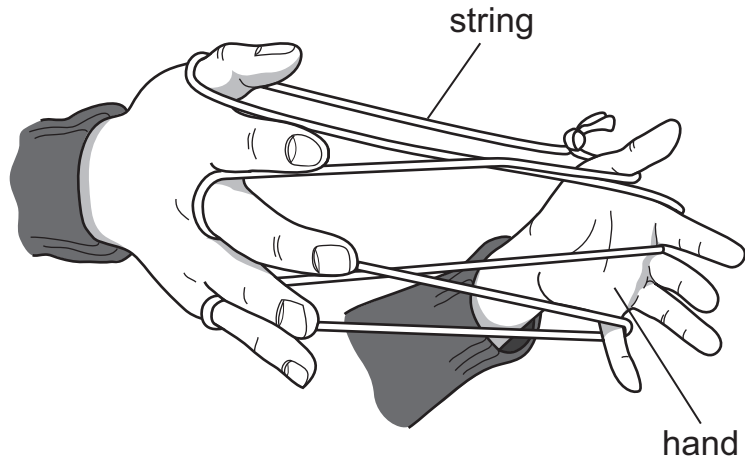
(c) Process **C** changes liquid mercury into solid mercury.

This process is [1]

(d) Process **D** changes mercury vapour into liquid mercury.

This process is [1]

6 Mia uses string to make different patterns.



(a) Complete the sentence.

Mia's hands pull the string.

Pull is an example of a

[1]

(b) Mia puts her hands closer together.

Explain what happens to the string.

The string

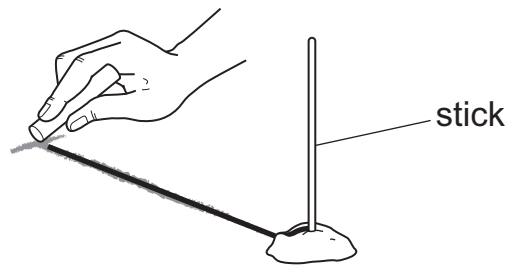
because

.....

[2]

7 Jamila and Safia investigate how the length of a shadow changes.

They place a stick in the ground.



They measure the length of the shadow of the stick.

(a) Safia says

‘The shadow will be shortest at 12:00.’

What is this statement?

Circle the correct answer.

conclusion data evidence prediction results

[1]

(b) What **two** pieces of equipment do they use for measuring in this experiment?

Tick (✓) **two** correct boxes.

forcemeter	<input type="checkbox"/>
light meter	<input type="checkbox"/>
ruler	<input type="checkbox"/>
sound meter	<input type="checkbox"/>
stop clock	<input type="checkbox"/>
weighing scales	<input type="checkbox"/>

[2]

(c) Jamila and Safia want to make their investigation a fair test.

What must they do?

Tick (✓) the box next to the correct sentence.

Label the axes of the graph correctly.

Measure from the same point to the end of the shadow each time.

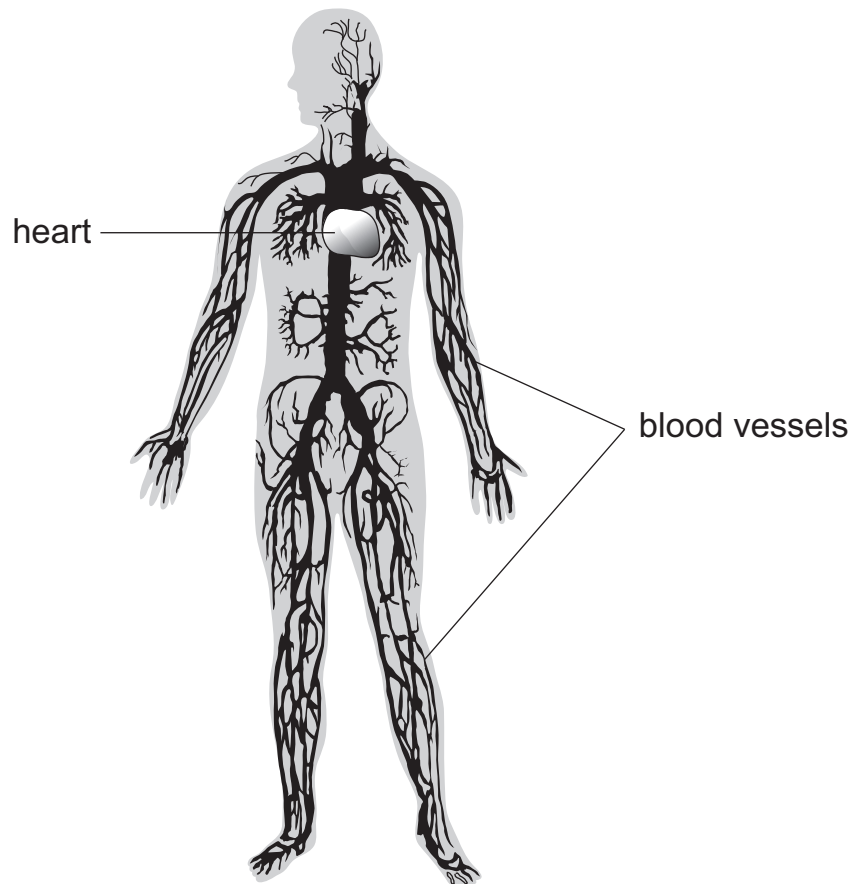
Push the stick into the ground before measuring.

Use a different stick in the ground each time.

Use a ruler to draw the table of results.

[1]

8 The heart is an important organ.



The heart pumps blood through all the blood vessels in the body.

Which statement about the heart is **false**?

Circle the **false** answer.

keeps the blood moving

pumps blood to the feet

moves oxygen to the brain

breathes out carbon dioxide

[1]

9 Mike uses the internet.

He finds the number of Earth days in a year for different planets.

planet	number of Earth days in a year
Earth	365
Jupiter	4333
Mars	687
Mercury	88
Saturn	10759
Venus	225

The Earth takes 365 days (one Earth year) to orbit the Sun.

(a) Which of these planets takes the **most** number of days to orbit the Sun?

..... [1]

(b) How many of these planets take fewer days than the Earth to orbit the Sun?

Circle the correct answer.

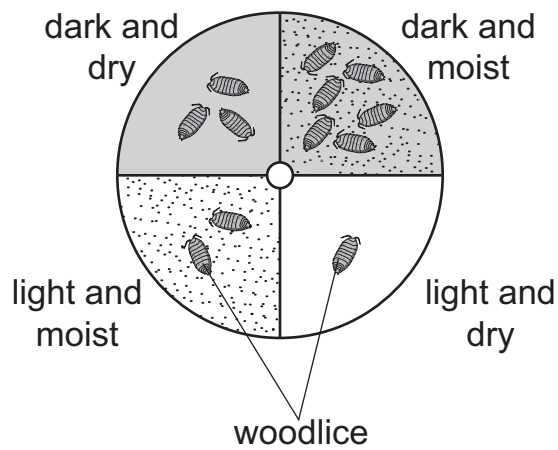
0 1 2 3 4

[1]

10 Aiko investigates different conditions animals like to live in.

- She sets up a dish with four different conditions.
- She puts 12 woodlice into the dish.
- She leaves the woodlice for 30 minutes.

Here are her results.



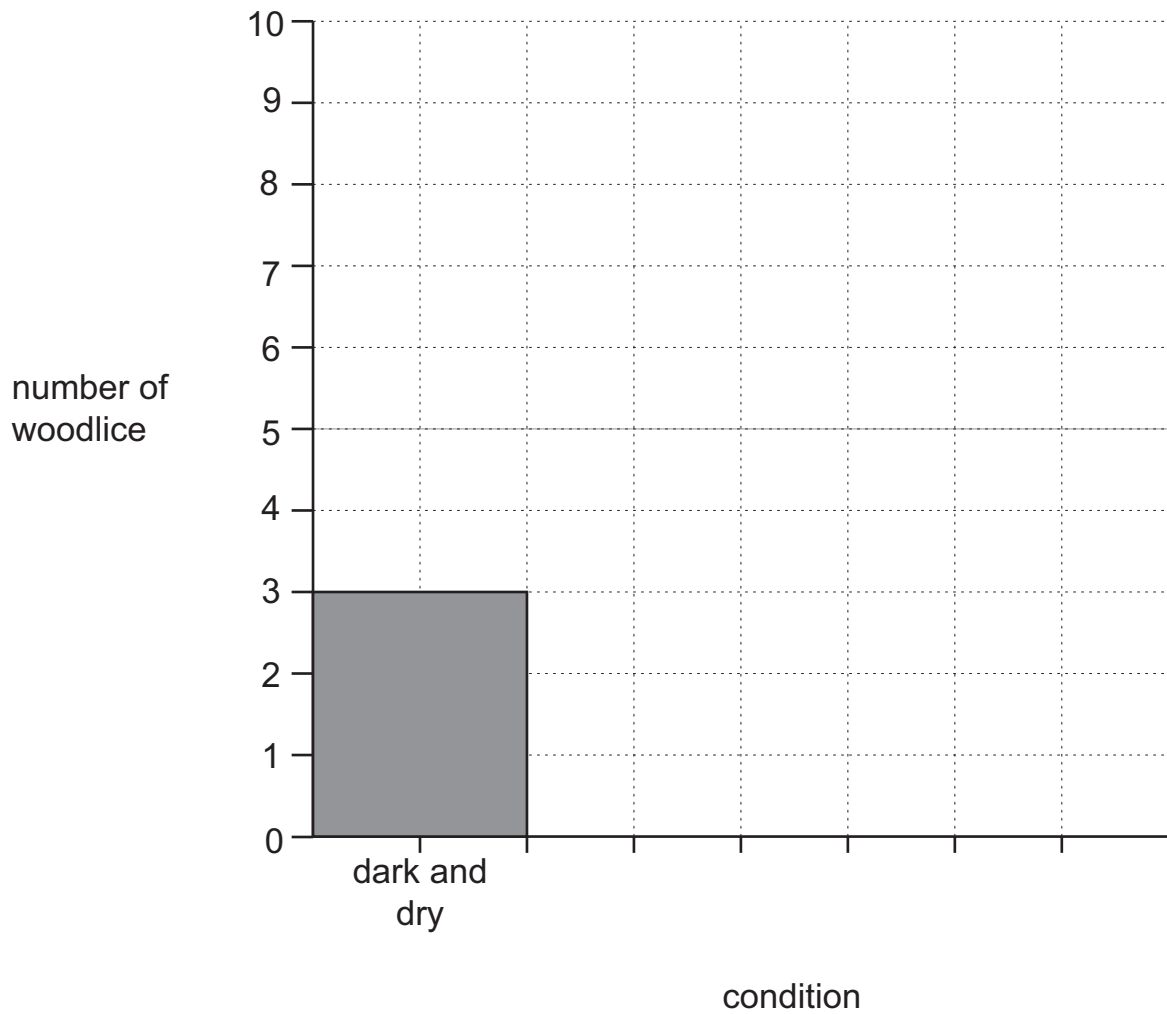
(a) Use her results to complete the table.

condition	number of woodlice
dark and dry	
dark and moist	
light and dry	
light and moist	

[1]

(b) Complete the bar chart of her results.

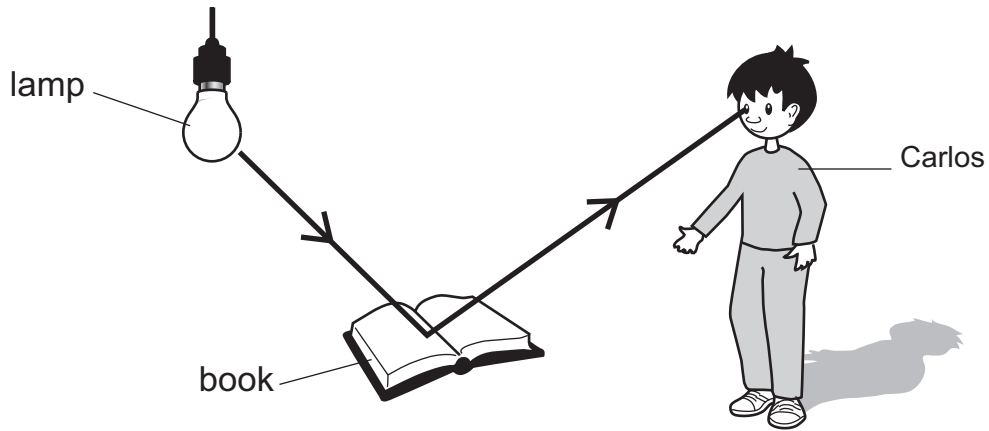
The first one has been done for you.



[2]

11 Carlos draws a picture.

He uses the picture to explain how he sees a book.



Complete the sentences.

Choose from the following words.

arrows **ears** **eyes** **face** **jumps**

lines **rays** **reflects** **takes in**

The lamp produces of light.

The surface of the book the light.

The light reaches Carlos and enters his

[2]

12 The picture shows a poppy plant.



(a) What process is happening in the picture?

Circle the correct answer.

flowering

germination

pollination

seed dispersal

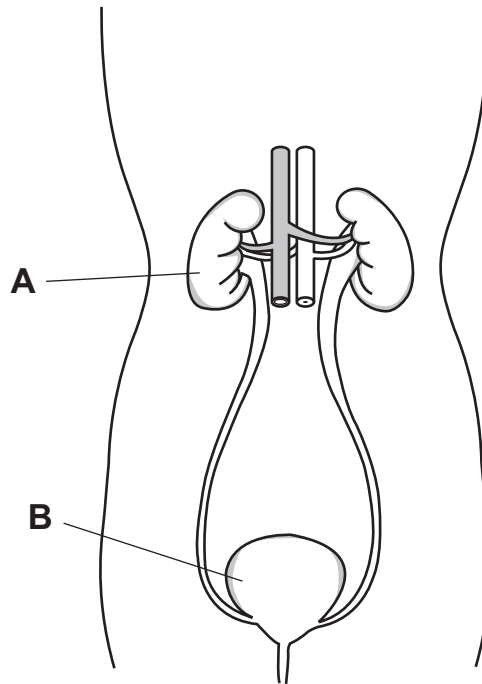
seed production

[1]

(b) Why is it important to the poppy plant that this process happens?

..... [1]

13 Look at the picture of the excretory system.



(a) Name organ **A** and organ **B**.

A is

B is

[2]

(b) Write down the function of organ **A** and organ **B**.

The function of organ **A** is

The function of organ **B** is

[2]

14 Drugs can be medicines.

(a) Priya has asthma.

She uses an inhaler.



The inhaler contains medicine.

Describe how the medicine gets inside Priya.

..... [1]

(b) Chen has a headache.



What type of medicine is used to help Chen?

Circle the correct answer.

cough medicine

painkiller

rash cream

teething gel

vitamins

[1]

15 Ahmed investigates the solubility of four substances **A**, **B**, **C** and **D**.

He wants to find which substance is the most soluble.

In his first experiment he

- uses 25 cm³ of water at a temperature of 20 °C
- adds substance **A** to the water until it just stops dissolving
- records the mass of substance **A** that has dissolved.

Ahmed then tests substances **B**, **C** and **D**.

(a) Ahmed wants to do a fair investigation.

What volume of water should he use in each experiment?

..... [1]

(b) Ahmed wants to do a fair investigation.

What temperature of water should he use in each experiment?

..... [1]

(c) Gabrielle suggests that Ahmed should do each experiment again.

Why is it a good idea to repeat experiments?

..... [1]

(d) Ahmed decides to investigate the solubility of substance **A** at higher temperatures of water.

Suggest a possible prediction for this investigation.

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

16 Angelique plays the recorder.



(a) Complete the sentence.

Choose the **best** word from the following.

bounces

changes

flows

vibrates

The air inside the recorder [1]

(b) Describe how Angelique changes the pitch of the sound from the recorder.

..... [1]

17 Which of the following is a reversible change?

Circle the correct answer.

baking bread

burning a match

frying an egg

melting ice cream

[1]

18 Anastasia finds this information about some materials.

material	is it a solid, liquid or a gas?	colour of material?	does it dissolve in water?	does it have a high or low melting point?
carbon dioxide	gas	colourless	yes	low
gold	solid	gold	no	high
hydrogen	gas	colourless	no	low
iron	solid	grey	no	high
magnesium sulfate	solid	white	yes	high
marble	solid	white	no	high
mercury	liquid	silver	no	low
paraffin	liquid	colourless	no	low

(a) Which material is a solid attracted to a magnet?

Choose from the table.

..... [1]

(b) Anastasia sorts these materials into two groups.

One group is **soluble** in water and the other group is **insoluble** in water.

Use the information about materials to complete these groups.

soluble materials	insoluble materials

[2]

(c) Anastasia sorts the materials into two **different** groups.

group A	group B
carbon dioxide hydrogen mercury paraffin	gold iron magnesium sulfate marble

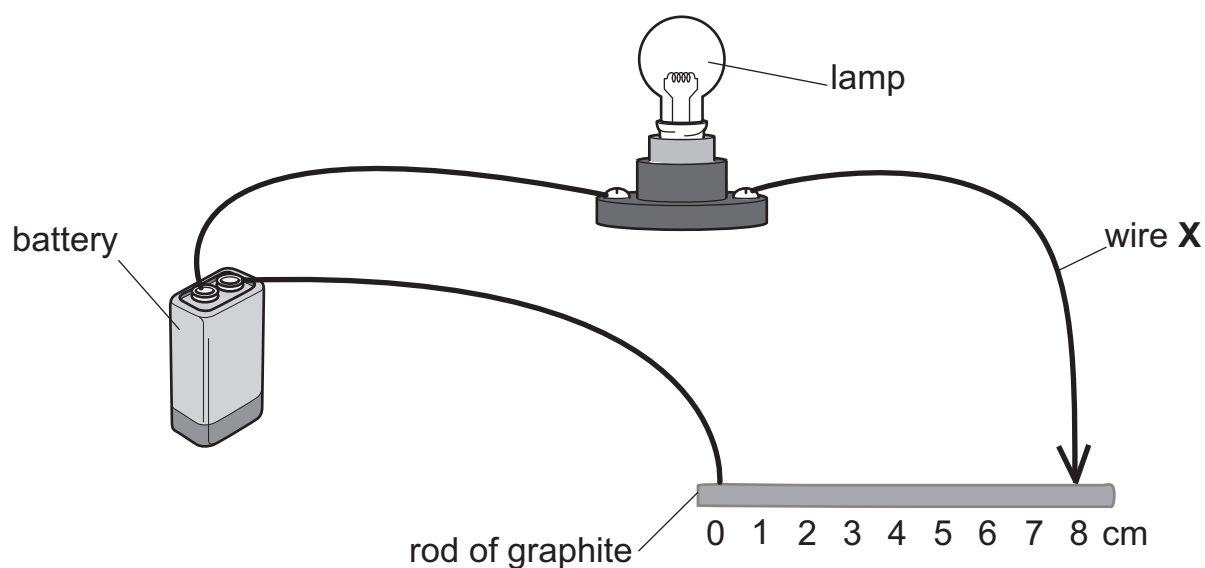
Which **two** questions in the table does Anastasia use to sort the materials?

1

2

[2]

19 Hassan and Mike connect an electrical circuit.



Hassan moves the wire **X** from 0 cm to 8 cm.

Mike writes down how bright the lamp is for each distance.

He uses a scale from 0 to 100.

100 is the brightest on the scale.

Here are the first three results.

distance in cm	brightness of lamp
0	100
2	80
4	60
6	
8	

(a) Complete the sentence.

As the distance increases the brightness of the lamp [1]

(b) Predict the brightness of the lamp for the distance of **6 cm**.

Circle the correct answer.

0

20

40

60

80

[1]

(c) Complete the sentence.

Choose the **best** word from the following.

conductor

insulator

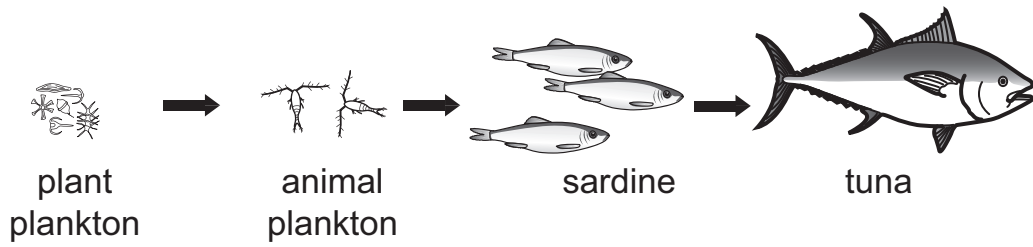
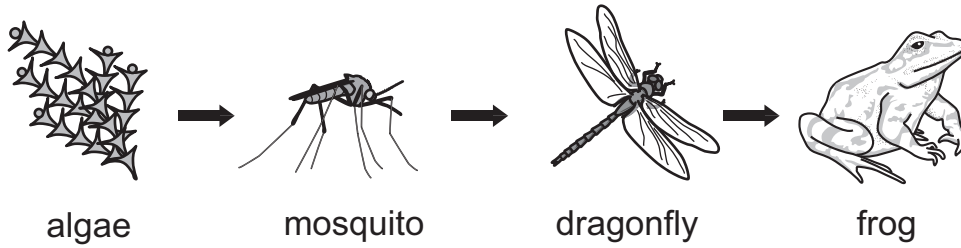
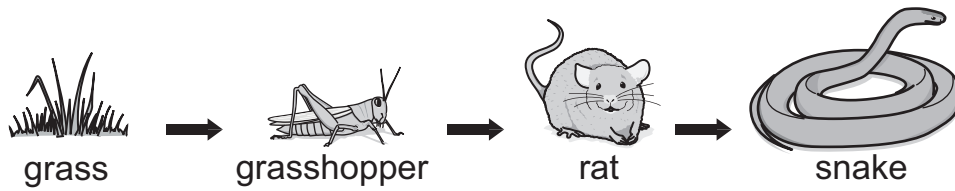
metal

plastic

solid

Graphite is a good electrical [1]

20 Lily finds three food chains in a book.



(a) Write down the name of two **predators** from the food chains.

1
 2 [1]

(b) Write down the name of two **prey** from the food chains.

1
 2 [1]

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.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cie.org.uk after the live examination series.

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.