Cambridge Primary Checkpoint

Cambridge International Examinations
Cambridge Primary Checkpoint

CANDIDATE NAME	

CENTRE NUMBER						CANDIDATE NUMBER				

2850136391

SCIENCE **0846/02**

Paper 2 **April 2016**

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 **23** printed pages and **1** blank page.

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1 Food chains show the feeding relationships in a habitat.

Draw a line from each **word** to the **description**.

word	**description**
consumer	an animal that eats plants and other animals
predator	a green plant
prey	an animal eaten by another animal
producer	an animal that catches and eats another animal

[2]

2 Mike investigates how well materials conduct electricity.

He connects different materials to an electrical circuit containing a lamp.

He looks at the brightness of the lamp.

Here are his results.

material	**brightness of lamp in circuit**
lead	lamp is very dim
brass	lamp is just brighter than when using lead
copper	lamp is bright
plastic	lamp does not work
silver	lamp is very bright

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(a) Brass conducts electricity.

Name **one** material that is a better conductor of electricity.

..... [1]

(b) Which material is the **best** conductor of electricity?

..... [1]

(c) Which material does **not** conduct electricity?

..... [1]

3 Class 6 have a quiz about the Earth and the Sun.

Answer the questions on the quiz.

Earth and Sun Quiz

(a) How many hours does it take for the Earth to spin on its axis?

..... [1]

(b) How many years does it take for the Earth to orbit the Sun?

..... [1]

(c) Why does the Sun appear to move across the sky during one day?

..... [1]

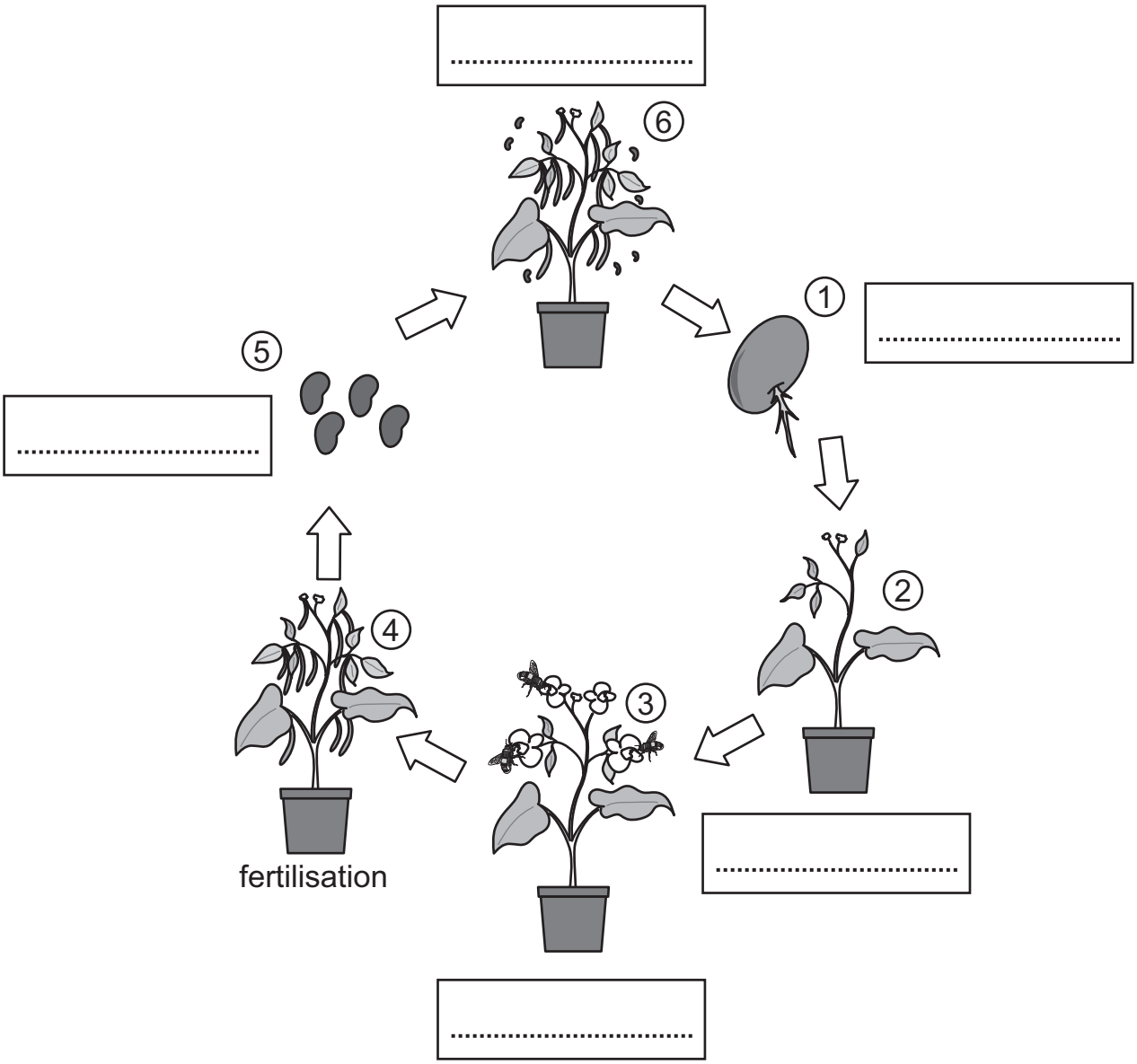
4 Flowering plants have a life cycle.

Complete the stages in the life cycle.

One has been done for you.

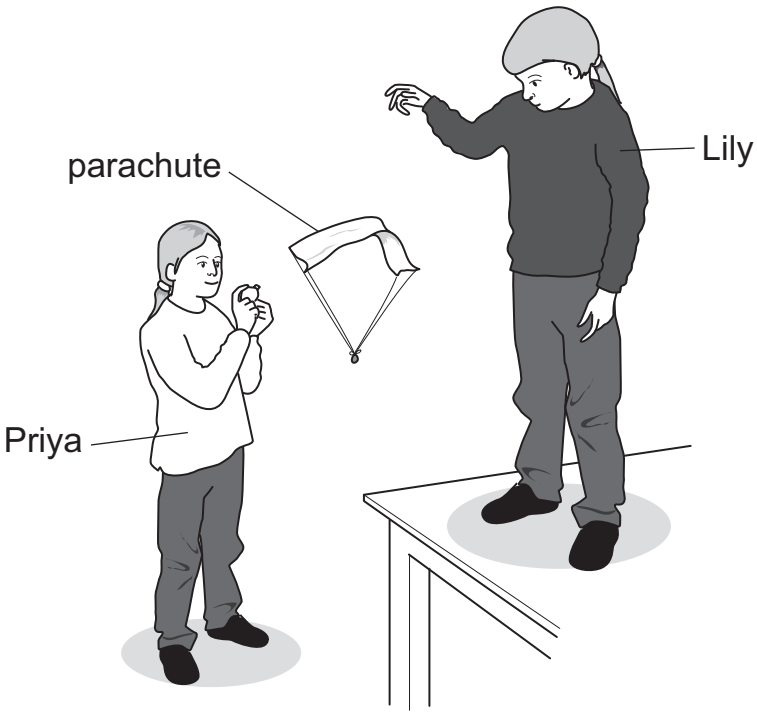
Choose from the following words.

germination **growth** **pollination** **seed dispersal** **seed production**



[2]

5 Priya and Lily investigate air resistance.



- Priya uses a stopwatch
- Lily drops parachutes.

Here is their prediction.

“We think bigger parachutes will fall more slowly.”

Their prediction is correct.

Complete the sentences.

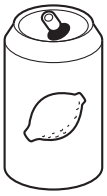
Choose words from the list.

less **more** **the same**

The bigger parachutes have ..... air resistance.

This makes the bigger parachutes fall with ..... speed. [2]

6 Fizzy drink containers are made from metals.



(a) Which **two** properties of a metal make it a good material for fizzy drink containers?

Tick (✓) the **two** correct properties.

attracted to a magnet	☐
good conductor of electricity	☐
good conductor of heat	☐
insoluble in water	☐
not poisonous	☐

[2]

(b) Fizzy drink containers are made of aluminium or steel.

They are recycled.

Steel is separated from aluminium.

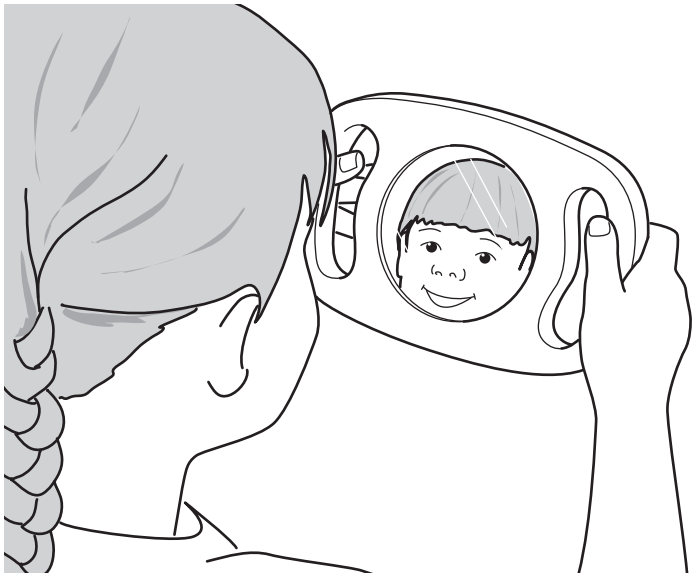
Describe how this can be done.

.....

Give a reason why this method would work.

..... [2]

7 Blessy looks at herself in a mirror.

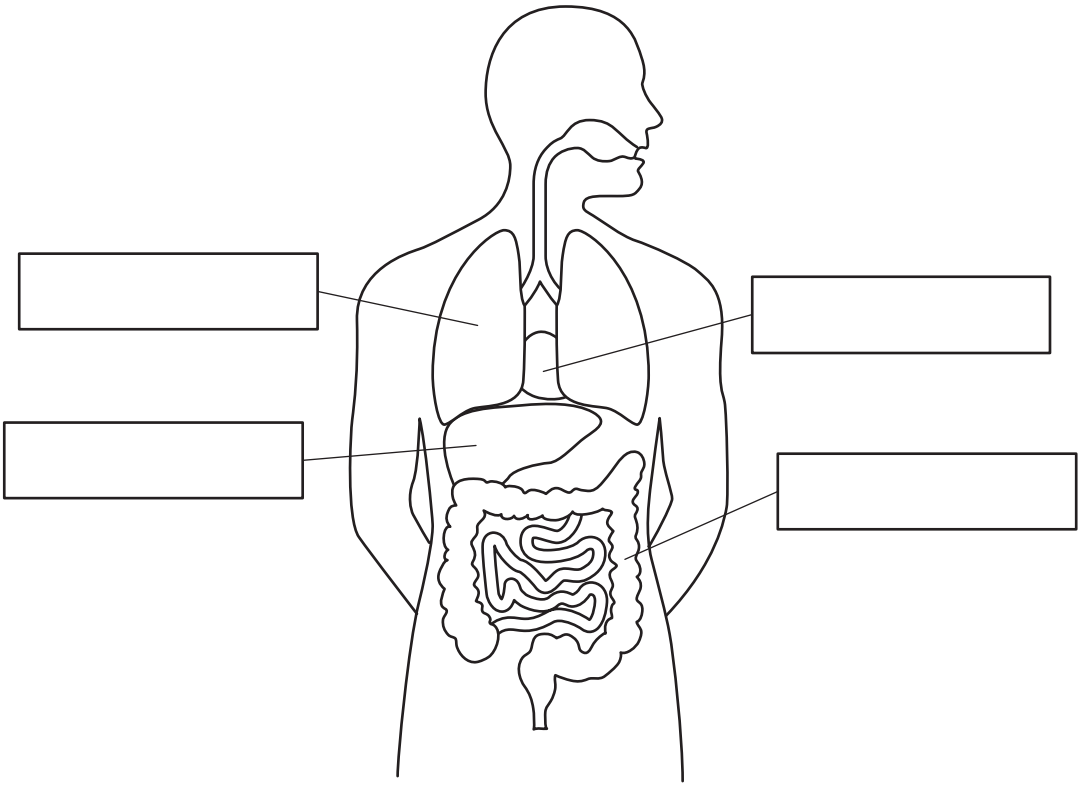


Tick (✓) the **two** correct sentences about what Blessy sees.

Blessy can see something because light has entered her eyes.	☐
Blessy has been reflected in the mirror.	☐
Blessy is behind the mirror.	☐
The light from Blessy does not change direction.	☐
The light from Blessy is reflected by the mirror.	☐

[2]

8 The body has many different organs.



(a) Label the organs. [3]

(b) Complete the table.

One has been done for you.

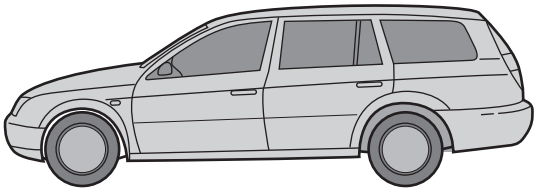
organ	job
liver	stores and controls chemicals
stomach	.....
brain	.....

[2]

9 Forces can do different things.

Cars have many forces acting on them.

The car moves forward.



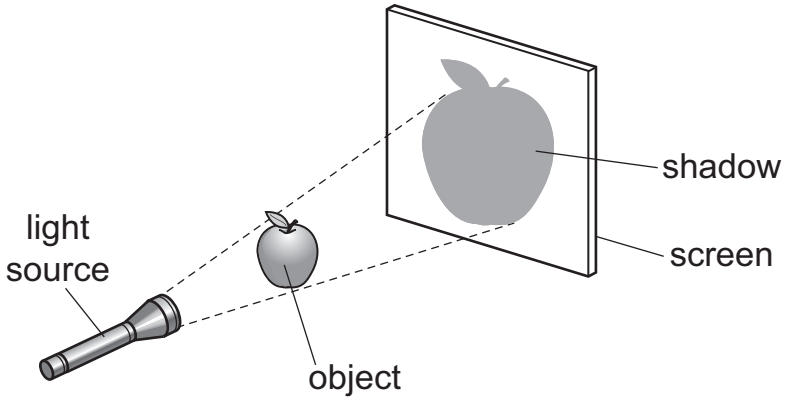
A force makes the car move forward.

Draw an arrow (→) on the car to show the direction of this force. [1]

10 Youssef is investigating the size of shadows.

He uses a light source in a dark room.

He places an object between the light source and the screen.

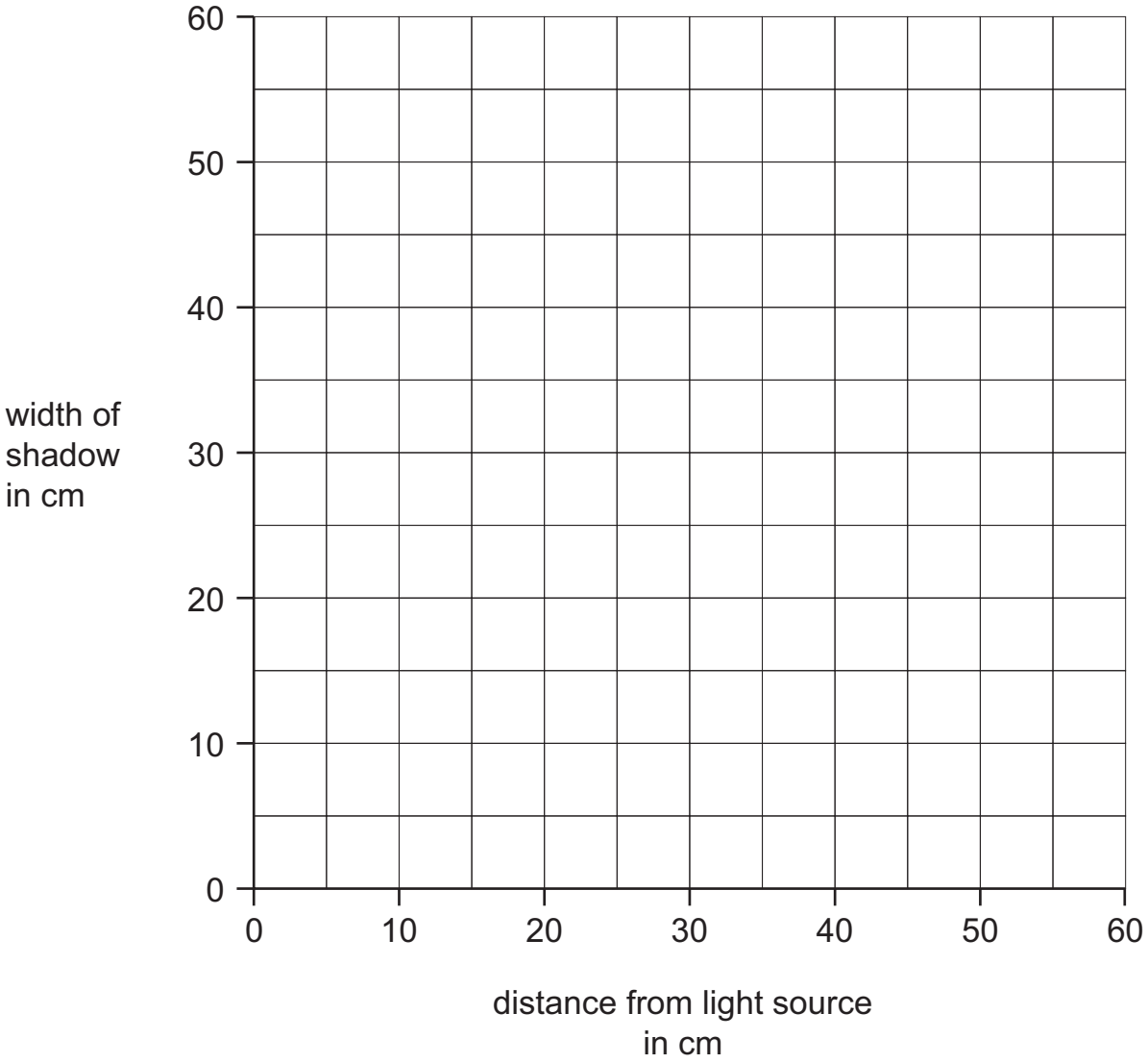


Here are Youssef's results.

distance of object from light source in cm	width of shadow in cm
20	60
30	40
40	30
50	25
60	20

(a) Use his results to plot a line graph.

Draw a line through the points.



[3]

(b) What is the width of the shadow when the object is 35 cm from the light source?

..... [1]

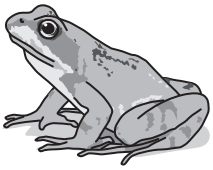
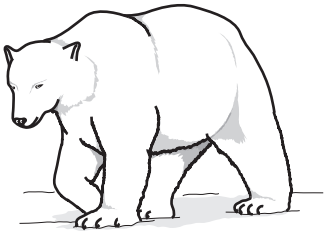
11 (a) Animals live in different habitats.

Look at the picture of each animal in the table.

Complete the table.

Choose from the following words.

desert **pond** **sea ice** **soil** **tree**

	natural habitat
earthworm	.....
 frog	.....
gerbil	.....
 polar bear	.....
squirrel	.....

[2]

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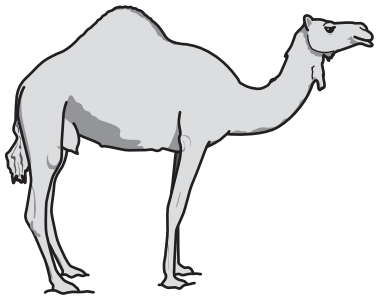
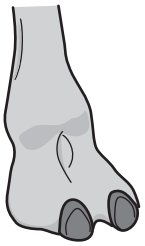
(b) Camels live in hot deserts.





camel

Write down **two** ways a camel is adapted to living in the hot desert.

Complete the sentences.

1 The camel has .....

It has this because .....

2 The camel has .....

It has this because ..... [2]

12 Mia has a mixture of three powdered solids.

Here are some properties of these solids

solid	soluble or insoluble in water	colour
chalk	insoluble	white
iron	insoluble	grey
potassium chloride	soluble	white

(a) Mia wants to separate the iron from the mixture.

Describe how she can do this.

.....

Explain why this method works.

.....

..... [2]

(b) Mia now has only potassium chloride and chalk left.

She decides to add the mixture to water and filter the mixture.

Draw a labelled diagram to show how she filters the mixture.

[3]

(c) After filtering she has potassium chloride solution left.

Mia heats the solution for 15 minutes.

At the end only solid potassium chloride remains.

What has happened to the water in the solution?

..... [1]

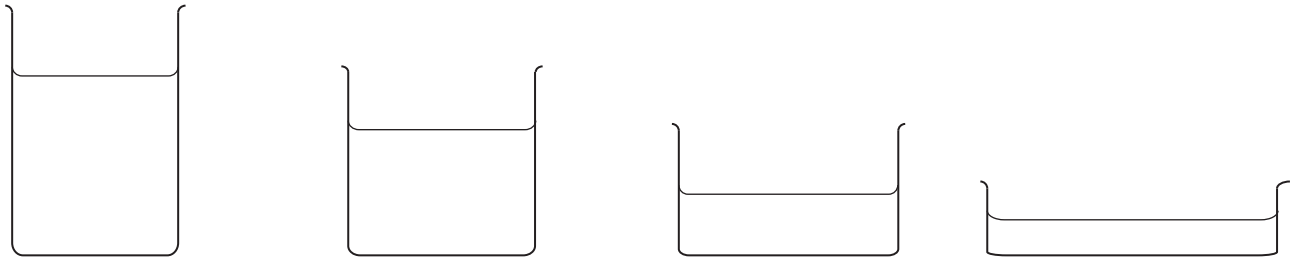
13 Gabriella investigates the evaporation of water.

She measures 100 cm^3 of water and puts this into a beaker.

She measures the time for all the water to evaporate.

Gabriella repeats the experiment three more times. Each time she uses a different beaker.

The surface area of the water increases from beaker **A** to beaker **D**.



beaker **A** beaker **B** beaker **C** beaker **D**

Gabriella writes sentences in her book.

(a) Which of these sentences is a **prediction**?

Tick (✓) the correct box.

All four beakers start with the same volume of water.	☐
Beaker **D** will take the shortest time for all the water to evaporate.	☐
Evaporation is the process by which a liquid changes into a gas.	☐
How many days will it take for all the water to evaporate from each beaker?	☐
The water in the four beakers must be at the same temperature.	☐

[1]

(b) Which of these sentences is a **piece of evidence** that Gabriella must collect?

Tick (✓) the correct box.

All four beakers start with the same volume of water.	☐
Beaker **D** will take the shortest time for all the water to evaporate.	☐
Evaporation is the process by which a liquid changes into a gas.	☐
How many days will it take for all the water to evaporate from each beaker?	☐
The water in the four beakers must be at the same temperature.	☐

[1]

(c) Which **two** of these sentences will make the investigation a **fair test**?

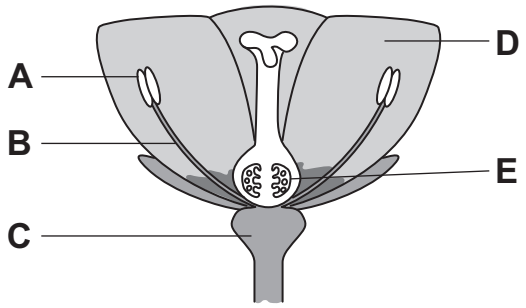
Tick (✓) the **two** correct boxes.

All four beakers start with the same volume of water.	☐
Beaker **D** will take the shortest time for all the water to evaporate.	☐
Evaporation is the process by which a liquid changes into a gas.	☐
How many days will it take for all the water to evaporate from each beaker?	☐
The water in the four beakers must be at the same temperature.	☐

[2]

14 Many plants have flowers.

(a) Look at this flower.



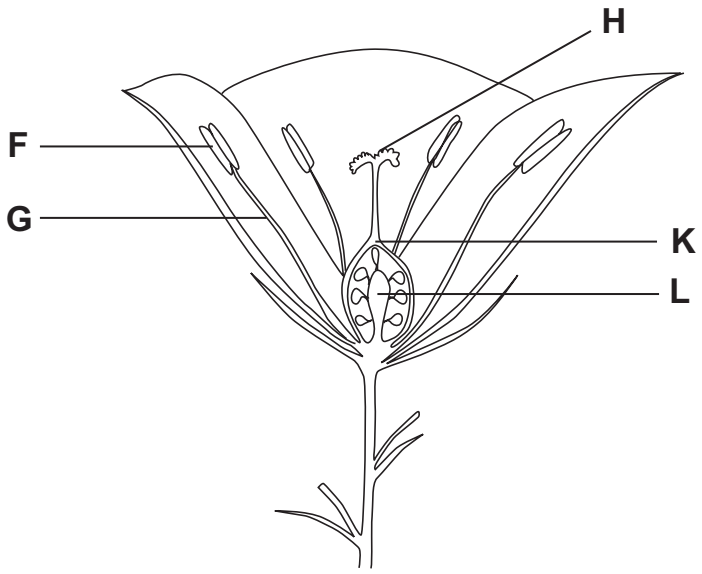
Which letter shows the **female** part of this flower?

Circle the correct answer.

A **B** **C** **D** **E**

[1]

(b) Look at this flower.



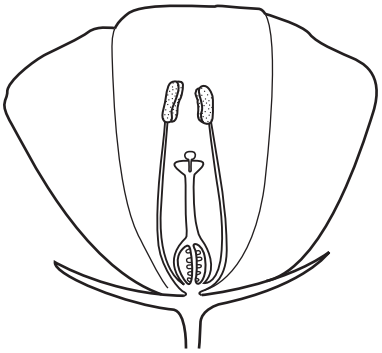
Which **two** letters show the **male** parts of this flower?

Circle the correct answer.

F and G **G and H** **H and K** **K and L**

[1]

(c) Look at this flower.

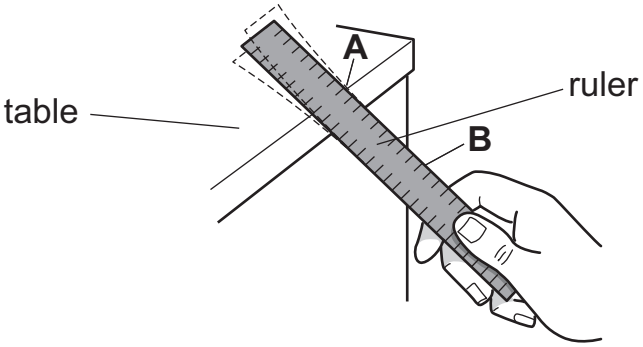


Draw the letter **X** on the flower to show where pollen is made. [1]

15 Chen investigates sound.

Investigation 1

Look at the picture.

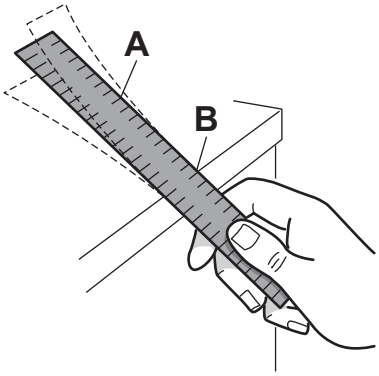


Chen hits his ruler on a table at point **A**.

He leaves the ruler on the table and listens to the sound it makes.

Investigation 2

Look at the new picture.



Chen hits the ruler on the table at point **B**.

He leaves the ruler on the table and listens to the sound it makes.

(a) Complete the sentence.

The ruler makes a sound because it ..... [1]

(b) What happens to the **pitch** of the sound?

Tick (✓) the correct answer.

pitch is higher in investigation 1 ☐

pitch is lower in investigation 1 ☐

pitch is the same in both investigations ☐

[1]

(c) Chen hits the ruler on the table with more force.

What happens to the **loudness** of the sound?

Tick (✓) the correct answer.

decreases ☐

increases ☐

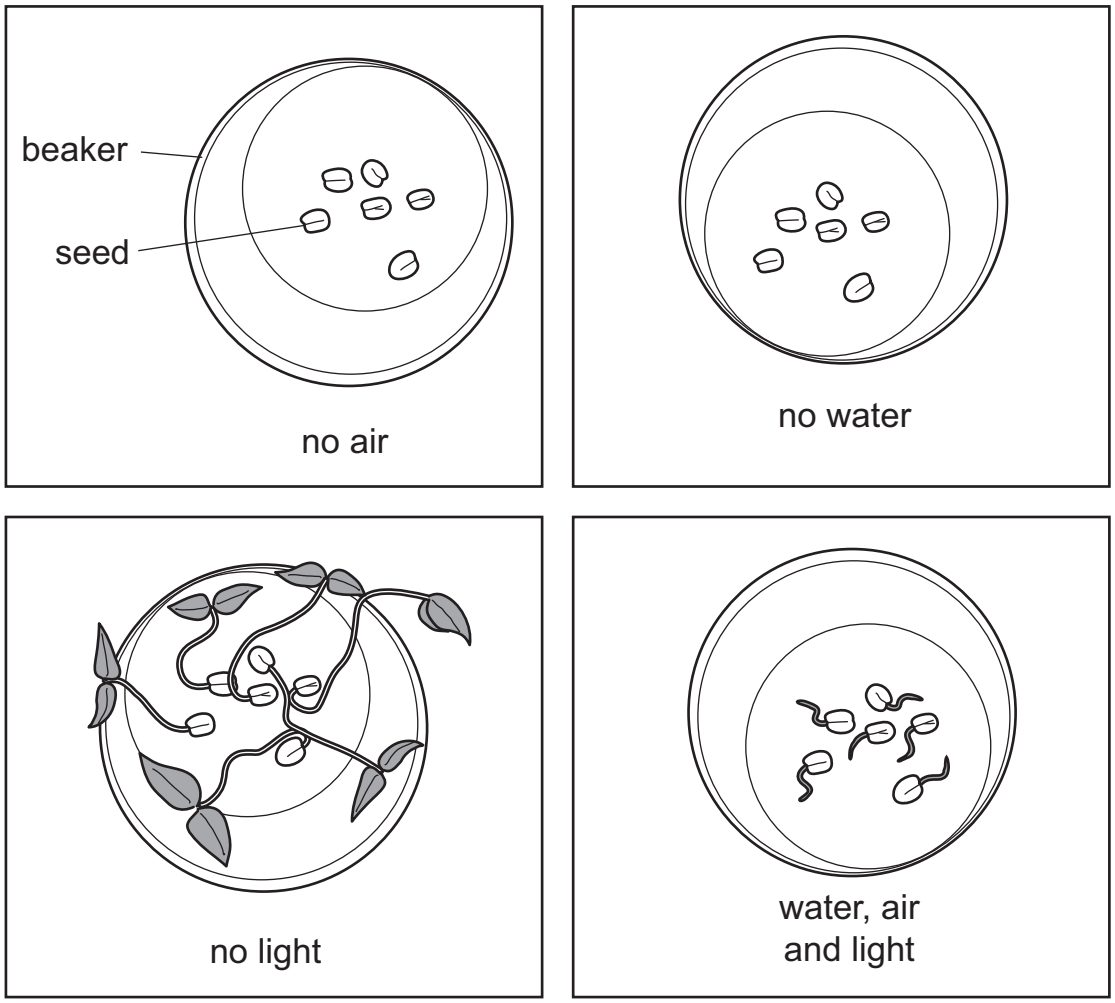
stays the same ☐

[1]

16 Oliver investigates germination of seeds.

He tries to grow seeds in different conditions.

Look at his results.



Oliver makes the investigation a **fair test**.

(a) He uses the same **type** of seeds in each beaker.

What **other** condition does he keep the same?

Complete the sentence.

He uses the same ..... of seeds in each beaker. [1]

(b) One of the beakers is labelled **no light**.

Describe how Oliver makes sure that no light reaches the seeds.

..... [1]

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