

CANDIDATE  
NAME

\_\_\_\_\_

CENTRE  
NUMBER

--	--	--	--	--

CANDIDATE  
NUMBER

--	--	--	--

**0846/01**

**April 2020**

**45 minutes**

You must answer on the question paper.

No additional materials are needed.

## INSTRUCTIONS

- Answer **all** questions.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.
- You should show all your working in the booklet.
- You may use a calculator.

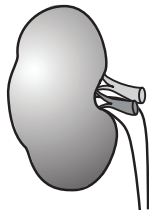

## INFORMATION

- The total mark for this paper is 50.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **20** pages. Blank pages are indicated.

1 The table shows two organs in the human body.

Complete the table.

picture of organ	name of organ
	.....
	.....

[2]

2 Oliver has three different mixtures.

- copper powder and steel powder
- copper powder and zinc lumps
- sand and water

He wants to separate each mixture.

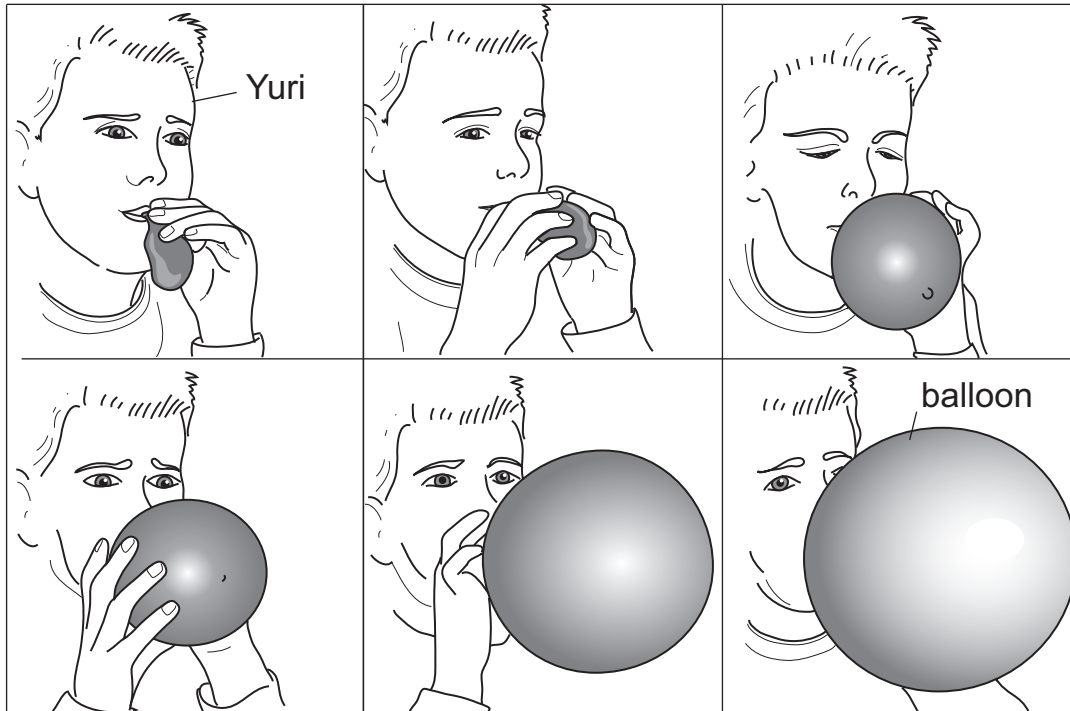
Complete the table to show the method he uses to separate each mixture.

mixture	method of separating
copper powder and steel powder	
copper powder and zinc lumps	
sand and water	

[3]

3 Yuri has a balloon.

He blows into the balloon.



Complete the sentences.

Choose the **best** words from

**direction**      **force**      **speed**      **pull**      **push**      **shape**

Yuri puts the balloon in his mouth.

He uses a ..... to ..... air into the  
balloon. The balloon changes ..... [2]

4 Draw a line between each **material** and **one** correct **description** of the material.

**material****description**

petrol

gold

nitrogen

polythene plastic

water

black solid

flammable liquid

melting point of 0 °C

colourless gas

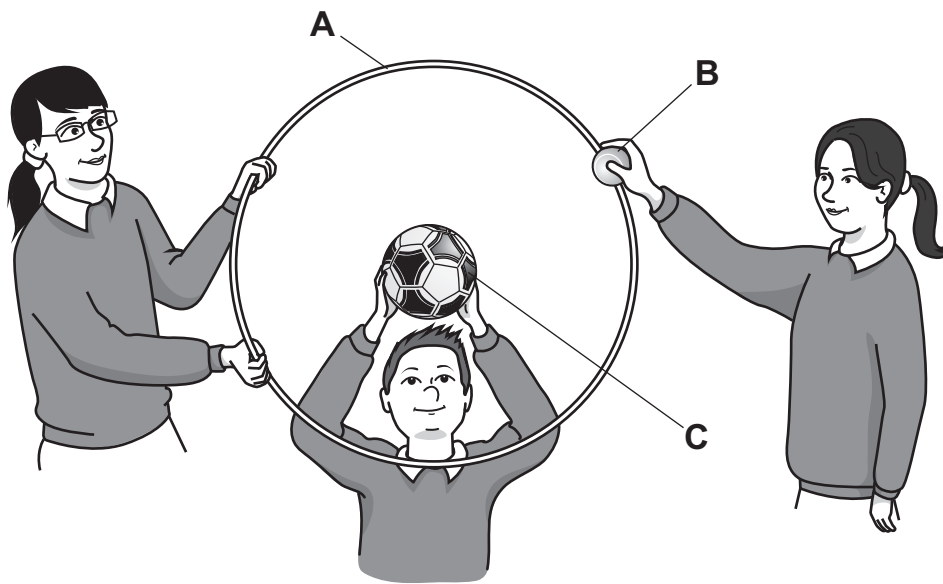
shiny solid

attracted to a magnet

flexible and colourless  
solid

[5]

5 Safia, Mia and Mike make a model of part of the solar system.



This is the model they make.

- Safia holds the hoop **A**.
- Mia moves the small ball **B** around the hoop **A**.
- Mike stands still in the middle holding the large ball **C**.

Complete the sentences.

Choose from the words

**axis**

**Earth**

**Moon**

**orbit**

**Sun**

Hoop **A** is a model of the .....

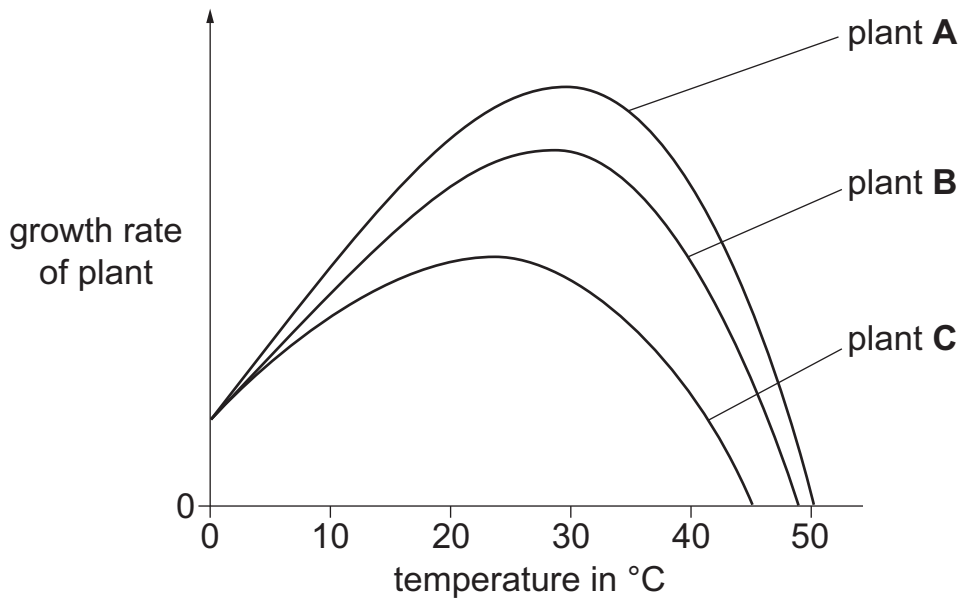
Ball **B** is a model of the .....

Ball **C** is a model of the .....

[2]

6 Safia and Lily use the internet.

They find some information about plant growth.



(a) Which plant grows the **fastest** when the temperature is 30°C?

.....

[1]

(b) Which plant **stops** growing when the temperature is 45°C?

.....

[1]

7 This question is about sound.

(a) Decide if each statement is true or false.

Tick (✓) the correct box.

statement	true	false
sound travels at the same speed through all materials		
volume of sound is measured in decibels		

[1]

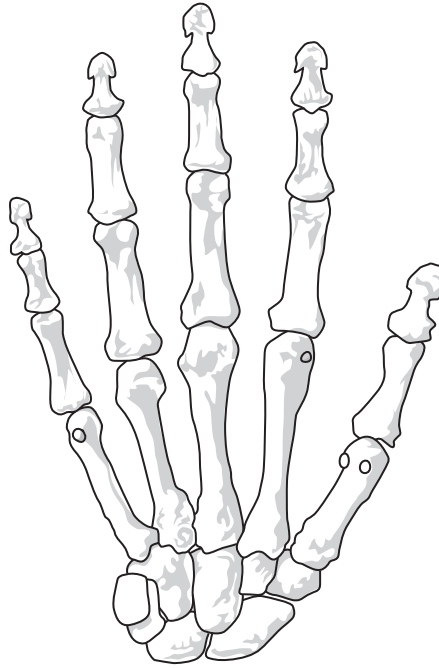
(b) Decide if each statement is true or false.

Tick (✓) the correct box.

statement	true	false
the strings of a violin vibrate to make sound		
hitting a drum harder makes a softer sound		

[1]

8 Jamila investigates bones in a human hand.



Jamila says that all the bones in the hand are different.

She makes some measurements.

(a) What equipment does she use to measure the **length** of each bone?

..... [1]

(b) What equipment does she use to measure the **mass** of the bones?

..... [1]

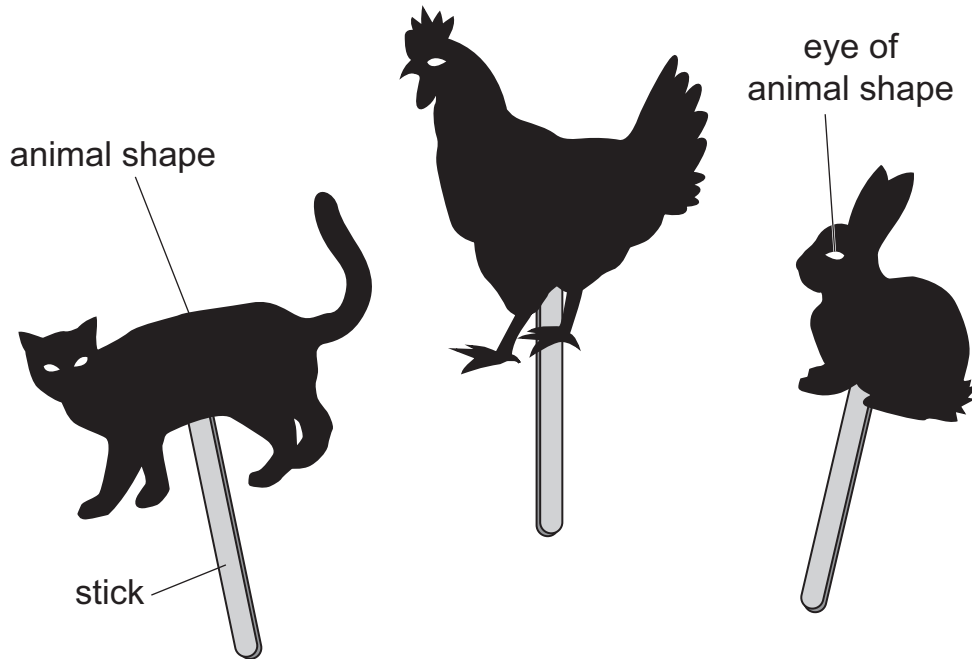
(c) Write down one **other** measurement she can make.

..... [1]



**9** Priya investigates shadows.

She makes different animal shapes and puts them on sticks.



Complete the sentences to describe how the animal shadows are formed.

**(a)** Animal shadows are made when light from a source is ..... [1]

**(b)** The animal shapes and the sticks make a shadow.

This is because the material they are made from is ..... [1]

**(c)** We can see the light passing through the eye of the animal shape.

This is because the eye of the animal shape is ..... [1]

**10** Complete the sentences about food chains.

A food chain shows the ..... relationship.

The animal that chases and eats other animals is called a .....

A plant that makes its own food is called a .....

[3]

**11** Class 6 have a quiz about forces.

Complete the answers to the quiz.

**Forces quiz**

1. What is the unit of mass?

.....

2. What is the unit of force?

.....

3. What is the unit of weight?

.....

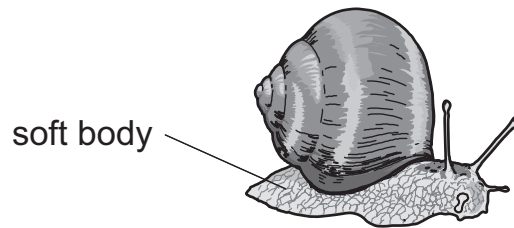
4. What is the name of the force that makes objects fall on the Earth?

.....

[3]

**12** Animals are suited to their environment.

Here is a picture of a snail.

**(a)** Some snails live in the desert.

They need to keep their soft body wet.

Describe **one** way snails keep their soft body from drying out.

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

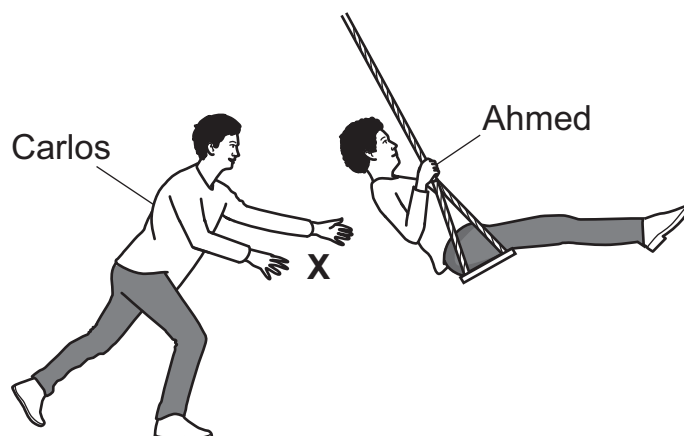
**(b)** Snails need to know where they are going.

What do snails use to help them know where they are going?

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

**13** Ahmed sits on a swing.

Carlos pushes Ahmed from the position labelled **X**.



Carlos pushes with gentle force, then medium force and then hard force.

The time it takes for Ahmed to come back to **X** is measured.

This time is measured with a stop-watch.

Here are the results.

hard 1.2 s    gentle 1.1 s    medium 1.0 s    medium 1.1 s    hard 1.0 s  
gentle 1.0 s    hard 1.1 s    gentle 1.1 s    medium 1.2 s

**(a)** Put the headings in the table.

Put the results in the table in order.

.....	.....		
gentle	.....	.....	.....
medium	.....	.....	.....
hard	.....	.....	.....

[2]

(b) Carlos pushes Ahmed with a much harder force.

Predict what happens to the time taken for Ahmed to come back to X.

..... [1]

(c) Carlos and Ahmed want to get better results.

Tick (✓) **one** thing they do to get better results.

Measure the height of Carlos.

☐

Measure the mass of Ahmed.

☐

Use a forcemeter to measure the force applied.

☐

Use more hard pushes and less gentle pushes.

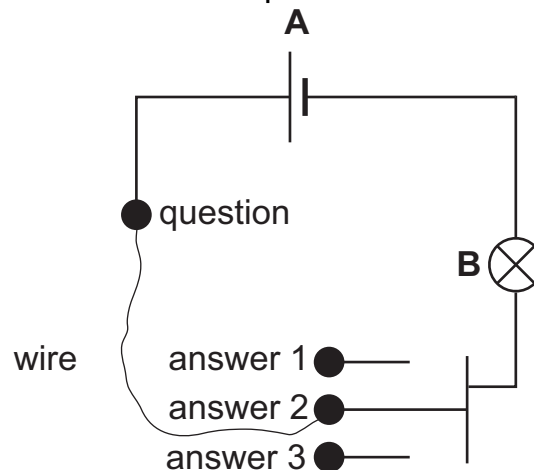
☐

[1]

14 Ahmed and Hassan are making a quiz board.

- they write a question
- they write three answers
- only one of the answers is correct

If they get the question correct the lamp will turn on.



(a) Ahmed asks Hassan what parts **A** and **B** are called.

Circle the correct answer.

**A is a battery and B is a lamp**

**A is a cell and B is a switch**

**A is a switch and B is a lamp**

**A is a cell and B is a lamp**

**A is a battery and B is a switch**

[1]

(b) Ahmed uses the quiz board.

He connects the wire from the question to answer 2 on the quiz board.

Has he selected the correct answer? .....

Explain your answer.

..... [1]

(c) A wire is used to make the connections.

The outside of the wire is made of plastic.

Explain why.

..... [1]

(d) The inside of the wire is made of copper.

Explain why.

..... [1]

**15** Potassium sulfate is a white solid.

It dissolves in water to give a colourless solution.

The boiling point of this solution is 107 °C.

(a) What happens when a liquid boils?

..... [1]

(b) Calculate the difference between the boiling point of the solution and the boiling point of pure water.

.....

Explain your answer.

.....

..... [2]

**16** Blessy is investigating the time it takes to dissolve sugar cubes in water.

- Blessy measures  $200\text{ cm}^3$  of water.
- She puts the water into a beaker.
- She adds one sugar cube to the water.
- Blessy stirs the mixture with a glass rod.
- She measures the time it takes the sugar cube to dissolve.

She repeats this experiment four more times.

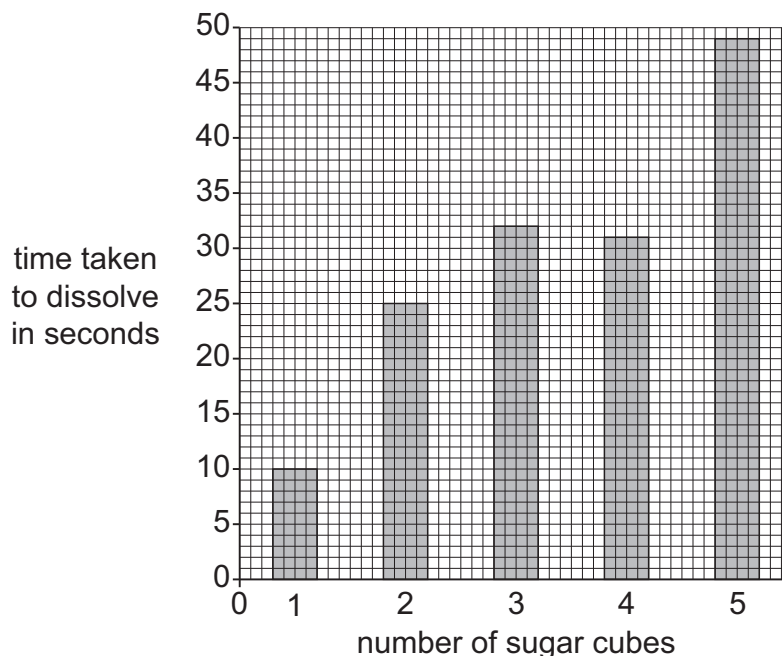
Each time she uses a different number of sugar cubes.

**(a)** Blessy wants to do a fair test.

Write down one **factor** she must keep the same.

..... [1]

**(b)** Here are Blessy's results.



What is the time taken to dissolve

two sugar cubes: ..... seconds

three sugar cubes: ..... seconds

[2]



(c) Blessy predicts that it would take 55 seconds for 6 sugar cubes to dissolve.

She checks her prediction by doing the experiment with 6 sugar cubes three times.

Here are her results.

experiment with 6 sugar cubes	time to dissolve in seconds
1	55
2	46
3	48

Do these results support Blessy's prediction? .....

Explain your answer.

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

(d) It was a good idea for Blessy to check her prediction using three experiments rather than just one.

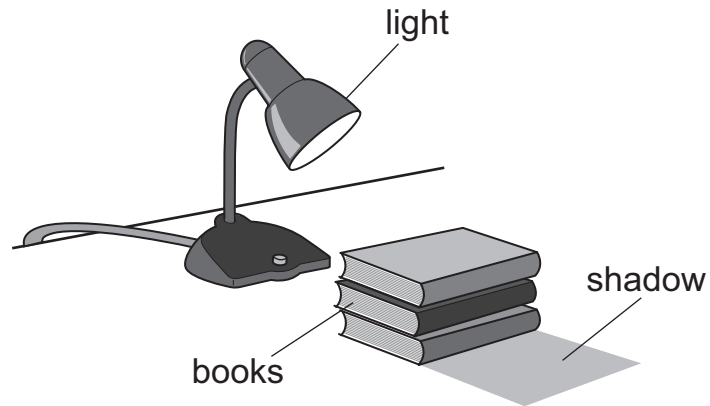
Explain why.

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

17 Mia puts some books on a desk.

She turns the light on.

The books make a shadow on the desk.



What does Mia do to make the shadow longer?

Tick (✓) the correct **two** boxes.

add a book

☐

remove a book

☐

make the light brighter

☐

make the light dimmer

☐

move the light away from the books

☐

move the light above the books

☐

[2]

**BLANK PAGE**

**BLANK PAGE**

---

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 Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at [www.cambridgeinternational.org](http://www.cambridgeinternational.org) after the live examination series.

Cambridge Assessment International Education is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which itself is a department of the University of Cambridge.