



**Cambridge  
Primary  
Checkpoint**

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
Cambridge Primary Checkpoint

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**SCIENCE**

**0846/02**

Paper 2

**October 2013**

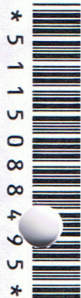
**45 minutes**

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.

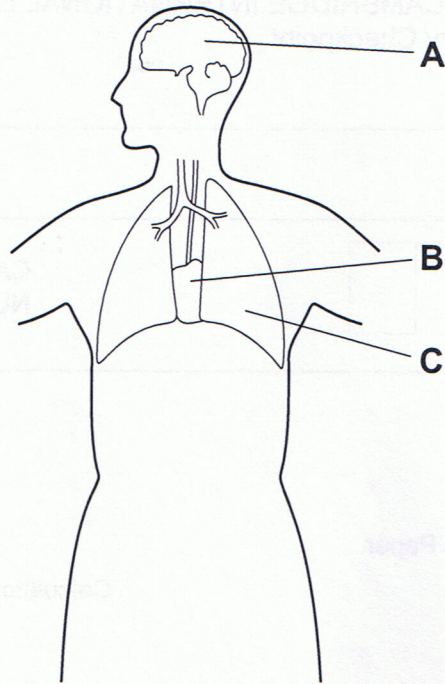
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<b>Total</b>	

This document consists of **19** printed pages and **1** blank page.





1 The diagram shows the location of some human organs.



(a) Write down the name of the organ **A**.

..... [1]

(b) What is the function of organ **B**?

..... [1]



- 2 Look at the words in the list and decide which one best fits in the following sentences.

You may only use a word once.

dull

shiny

smooth

soft

strong

If you look at a brick wall, you cannot see your face in it because its surface is .....

It is very easy to slip on ice because its surface is .....

Steel does not break because it is a very ..... substance.

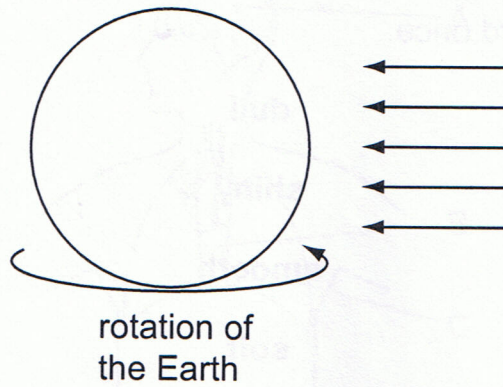
Butter is easy to cut because it is ..... [3]



DO NOT WRITE IN THIS MARGIN



3 The diagram shows the Earth with rays of light reaching it from the Sun.



(a) Gently shade in that part of the Earth that is experiencing night time. [1]

(b) Write the letter **N** at any point on the diagram where the time will be approximately noon and a letter **M** where the time will be approximately midnight. [2]




4 Joe is in his kitchen on a cold day boiling pasta.


The windows have misted up.

His friends try to explain what has happened.


Steam from the boiling water condensed on the windows.





The windows got hot and sweaty because it is hot in here.




The windows need a clean then they will not mist up.




The water vapour in the air has condensed on the cold windows.




Tick (✓) **two** statements that explain best what has happened.

[2]

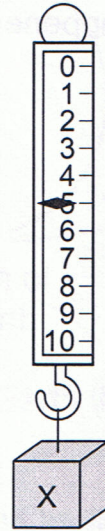


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5 Jamil has a block of wood.

He uses a force meter as shown in the diagram.



(a) What is he measuring?

Circle the correct answer.

friction

mass

upthrust

weight

[1]

(b) Write down the measurement shown on the force meter.

..... N [1]



7 Food chains tell us about feeding relationships.

This chain has **four** living things, (**A, B, C** and **D**).



Use this chain to answer the following questions.

(a) What do the arrows mean?

Tick (✓) **one** box.

hunts

is bigger than

is food for

is more than

[1]

(b) What word describes living thing **A**?

.....

[1]



(c) Which **two** words describe **D**?

Tick (✓) **two** boxes.

carnivore

herbivore

predator

prey

[1]

(d) Circle the living things from the food chain that are **consumers**.

**A**

**B**

**C**

**D**

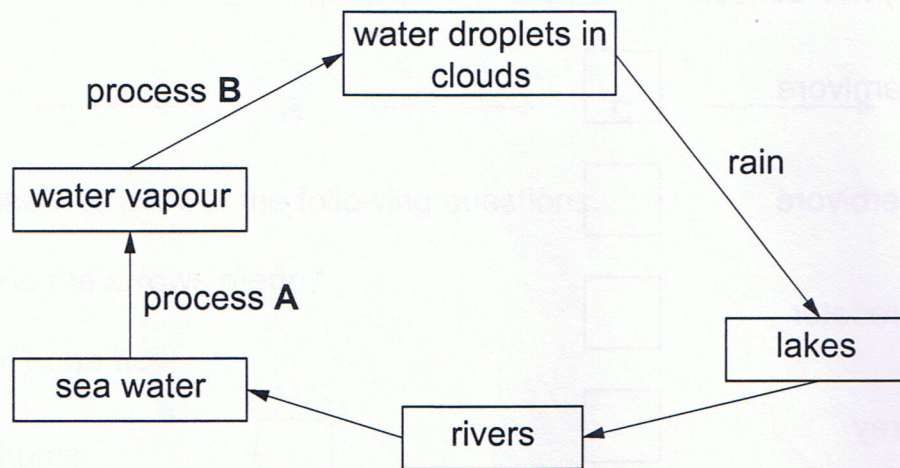
[1]







8 The flow chart shows part of the water cycle.



(a) What is the name of process A?

..... [1]

(b) What is the name of process B?

..... [1]

(c) Sometimes it is so cold that the water in a lake becomes ice.

What is the name of this process?

..... [1]

(d) Sea water is boiled in a beaker for a long time.

What would you see?

..... [1]



10 There are five objects below.

They are either **transparent** or **opaque**.

Write down the objects into the correct box.

window

tin can

spectacles

microscope slide

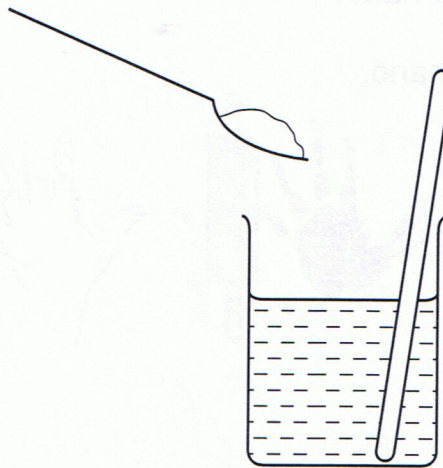
car tyre

transparent	opaque
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

[2]



11 Rachel and Imre are adding two different solids to two different liquids.



Here are their results.

	chalk	sugar
vinegar	fizzing	nothing happens
water	sinks to bottom	dissolves

(a) Which solid changes irreversibly in **vinegar**?

..... [1]

(b) Which solid changes reversibly in **water**?

..... [1]

(c) Which solid and liquid makes a new substance?

Tick (✓) the correct box.

vinegar and chalk

water and chalk

water and sugar

[1]





12 Mia is aged 7 years.

She wants to measure her hand.

She makes a print of her hand.



She makes a hand print every month for 12 months.

(a) Mia wants to measure how much her hand changes.

What does she measure on the hand print?

..... [1]

(b) Why is it important to make the **same** measurement each month?

..... [1]

(c) Write down one way Mia makes the measurements **more** reliable?

..... [1]

(d) Predict what will happen to Mia's hand size after 12 months.

Circle the correct answer.

stays the same

decreases

increases

[1]

(e) What is the name of the hard part **inside** the hand?

Circle the correct answer.

blood

bone

muscle

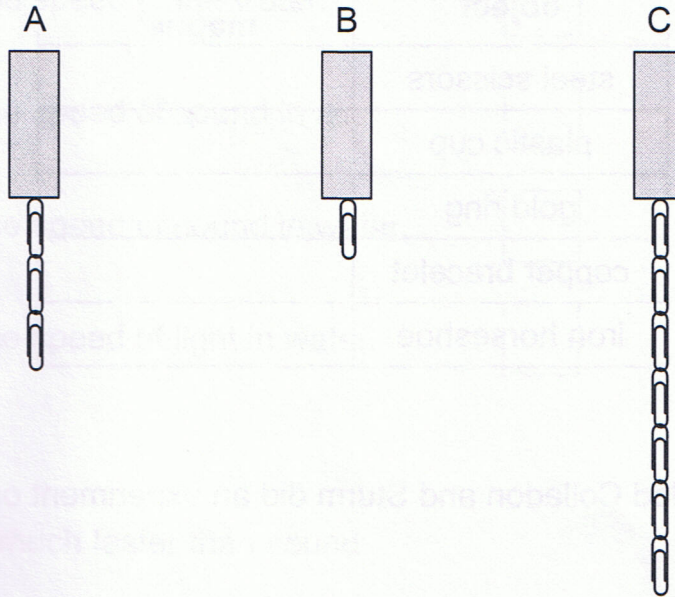
skin

[1]



13 Alina and Troy investigate the strength of magnets.

Here are their results.



(a) Which is the strongest magnet?

Circle the correct answer.

A

B

C

[1]

(b) What **two** factors must they keep the same to make it a fair test?

1 .....

2 .....

[2]





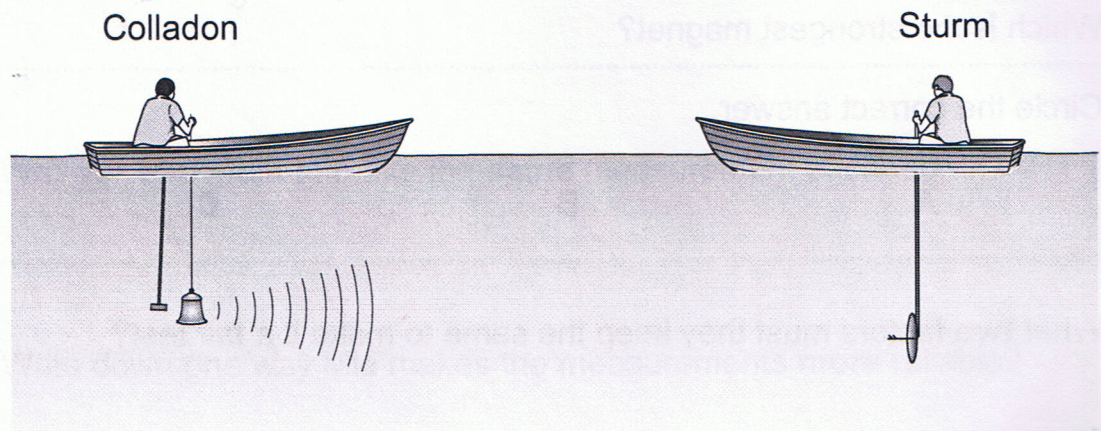
(c) Complete the table to show what objects are attracted to a magnet.

Tick (✓) the **two** correct boxes.

object	attracted to magnet
steel scissors	
plastic cup	
gold ring	
copper bracelet	
iron horseshoe	

[2]

14 Two scientists called Colladon and Sturm did an experiment on Lake Geneva in 1826.



This is what they did:

- Colladon struck a bell underwater.
- When the bell was struck he set off a flash of light.
- Sturm was nine miles away. He listened for the bell underwater.
- Sturm recorded the time between seeing the flash and hearing the bell.

This experiment was conducted at night.



(a) What were they trying to find out?

Tick (✓) the correct box.

The speed of the water.

The speed of sound in air.

The speed of sound in water.

The speed of light in water.

[1]

(b) Light travels much faster than sound.

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

He hears the bell before he sees the flash of light.

He sees the flash of light before he hears the bell.

He hears the bell at the same time as he sees the flash of light.

[1]

(c) Why was the experiment carried out at night?

..... [1]

(d) Why do they repeat their experiment three times?

..... [1]

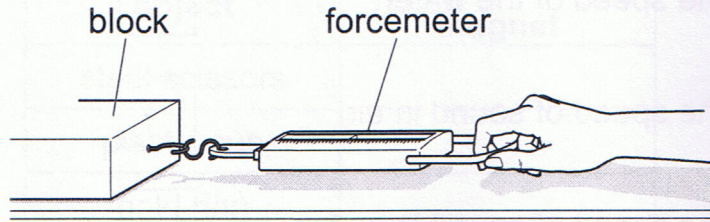
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15 Noa and Tamar investigate friction.

They pull a block using a forcemeter.



(a) Draw an arrow on the diagram to show the direction of frictional force. [1

(b) What is force measured in?

Circle the correct answer.

cm<sup>3</sup>

Kg

m<sup>2</sup>

N [1

Noa and Tamar repeat the investigation using different surfaces.

Here are their results.

surface	force needed
table top	3.0
paper towel	3.3
fine sand paper	3.4
rough sand paper	3.7

(c) Complete the sentence to write a conclusion for this investigation.

The rougher the surface, the ..... the force needed. [1





(d) Predict what will happen if oil is added to the surface of the table top.

Tick (✓) **one** box.

the force needed will be about 2.6

the force needed will be about 3.0

the force needed will be about 3.1

the force needed will be about 3.6

[1]

16 Rowan and Lark investigate how the number of stirs affects the time it takes for sugar to dissolve in water.



Here are their results.

number of stirs	5	10	15	20
time it takes to dissolve in seconds	49	41	27	15

(a) Write down **two** things they must do to make their investigation a fair test.

1 .....

2 .....

[1]

(b) Write down **one** other factor they could change which affects how quickly the same mass of sugar dissolves in water.

.....

[1]

