

Cambridge Primary Checkpoint

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SCIENCE

0097/02

Paper 2

May 2026

35 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. Do **not** use correction fluid or tape.
- 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 40.
- The number of marks for each question or part question is shown in brackets [].

This document has **20** pages. Any blank pages are indicated.



- 1 Chen is learning about the respiratory system.

Chen says,

'I think cats have similar respiratory systems to humans.'

- (a) What type of statement is this?

Circle the correct answer.

conclusion

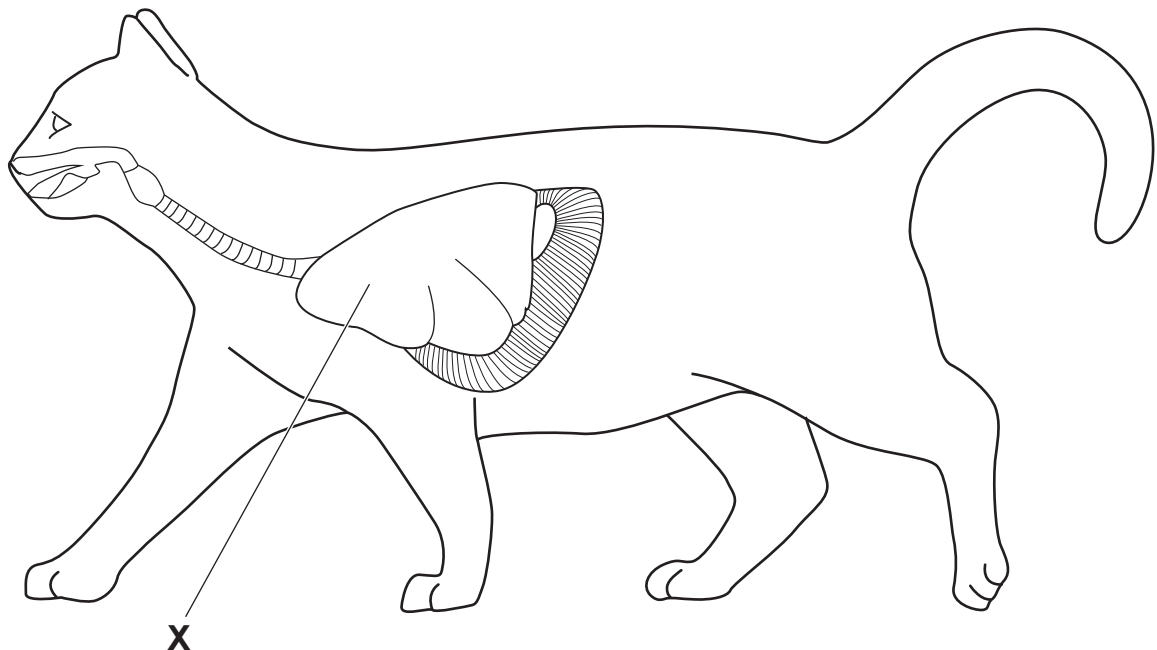
explanation

prediction

risk assessment

[1]

- (b) Chen finds a diagram of the respiratory system of a cat on the internet.



Name organ **X**.

X [1]

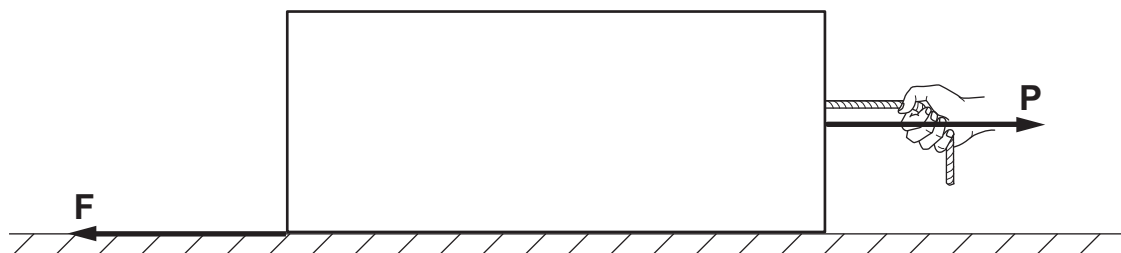
(c) The respiratory system helps to defend the body from infection.

Describe how.

.....

..... [1]

2 The diagram shows a heavy box on a rough surface.



There is a force **F** between the box and the surface.

Oliver tries to pull the box with pulling force **P**.

Complete the table to show what happens as pulling force **P** increases.

pulling force P in N	force F in N	what happens to the box
10	10	
20	20	
30		the box just starts to move
40	30	

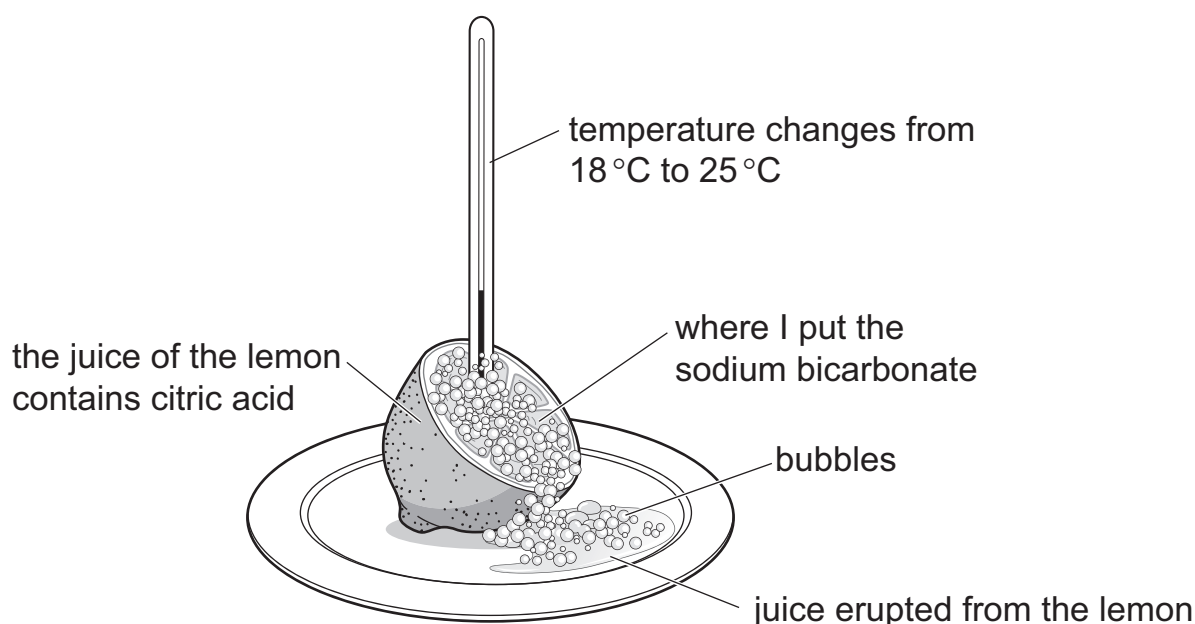
[3]

3 Ahmed makes a lemon volcano.

Ahmed:

- puts half a lemon onto a large plate
- puts a thermometer into the lemon
- measures the temperature of the lemon
- covers the lemon with sodium bicarbonate
- measures the temperature again.

Ahmed labels a picture to show his experiment and his results.



Complete the sentences about the lemon volcano investigation.

Use the picture to help you.

(a) The citric acid reacts with [1]

(b) Ahmed observes being made and the increasing. [2]

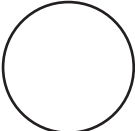
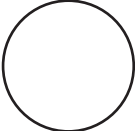
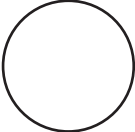
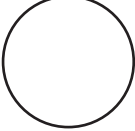
(c) New substances are made in the reaction so it is a reaction. [1]

4 Angelique draws diagrams to show how the appearance of the Moon in the Southern Hemisphere changes during its monthly cycle.

She completes four diagrams from the monthly cycle of the Moon.



Complete the table to show the appearance of the Moon for the **other** four diagrams.

Moon	appearance
waxing crescent	
first quarter Moon	
waning gibbous	
third quarter Moon	

[2]

- 5 Scientists count the number of eagles in one area in different years.

The table shows their results.

year	number of eagles
1930	650
1970	60
2000	655
2016	2000
2020	3000

- (a) Farmers start to spray crops with a toxic substance to kill weeds in 1950.

The farmers stop spraying the crops with the toxic substance in 1972.

Scientists think that the toxic substance the farmers use also kills eagles.

Tick (✓) to show if the scientists are correct.

yes ☐ no ☐

Explain your answer. Use information from the table.

.....

.....

[1]

- (b) Which type of scientific enquiry do the scientists use to **collect the data** in the table?

Circle the correct answer.

research

pattern seeking

observing over time

identifying and classifying

[1]

- (c) Eagles are carnivores.

Explain how the toxic substance sprayed on the plants kills the eagles.

.....

.....

.....

..... [2]

6 The table shows some statements about boiling and evaporation.

Tick (✓) the correct box to show if the statement is about:

- boiling only
- evaporation only
- both boiling and evaporation.

	boiling only	evaporation only	both boiling and evaporation
change of state			
only happens on the surface			
makes bubbles			
only happens at one temperature			

[2]

7 This question is about types of soil and how well plants grow.

(a) Complete the sentence.

Different types of soil are classified based on their clay,

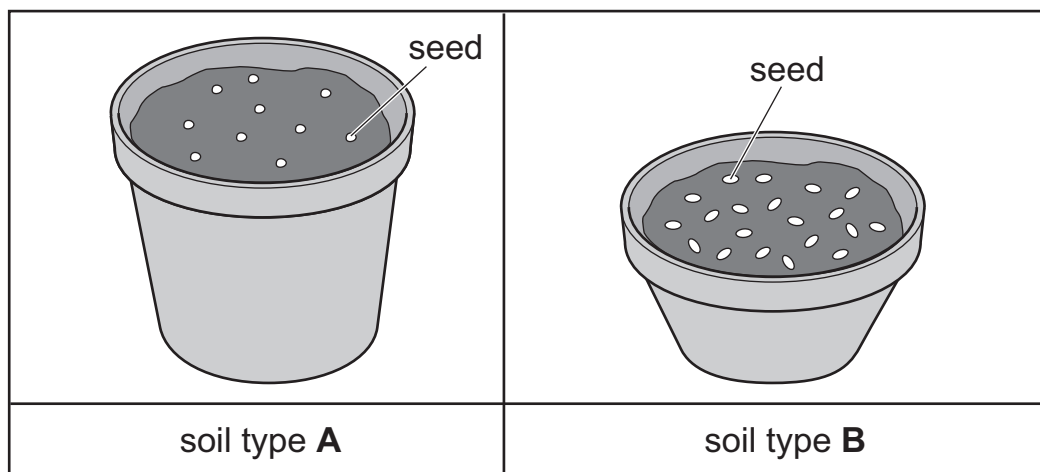
..... and content.

[1]

(b) Mia and Blessy compare two types of soil to find out which is best for growing plants from seeds.

They:

- put soil type **A** in one container
- put soil type **B** in a different container
- sprinkle seeds onto each soil
- count how many seeds grow after two weeks.



Their investigation is **not** a fair test.

Suggest **two** ways to improve their investigation to make it a fair test.

Use the diagram to help you.

1

2

[1]

8 Safia investigates parallel circuits.

She uses a cell, a switch and two identical lamps.

(a) Complete the table by drawing the conventional symbol for each component.

component	symbol
cell	
lamp	
open switch	

[2]

(b) Draw a parallel circuit diagram showing the cell and open switch connected to **two** lamps.

The two lamps are parallel with each other.

The switch turns on both lamps at the same time.

Use the conventional symbols.

[2]

(c) Safia closes the switch and the lamps light up.

She adds an identical lamp parallel with the other two lamps.

What happens to the brightness of the lamps?

..... [1]

9 Parasites cause infectious diseases.

Write down **two other** causes of infectious disease.

1

2

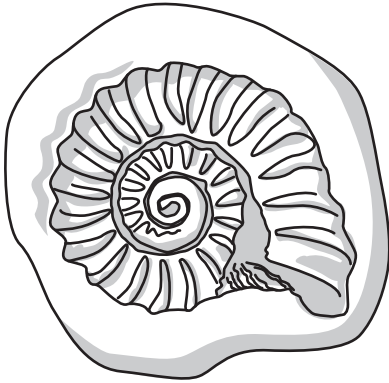
[2]

10 Rajiv is learning about scientific models.

He uses clay, a shell and white glue.

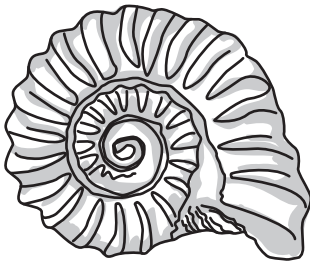
He presses the shell into the surface of the clay and carefully removes it.

This makes a mould.



He pours the white glue into the mould and leaves it to harden.

He removes the hard white glue from the mould.



(a) What has Rajiv made a model of?

..... [1]

(b) Rajiv made this model in one day.

Describe how Rajiv making his model is different to the real process.

.....
 [1]

11 Aiko investigates how different solids dissolve in water.

Aiko:

- records how much of each solid dissolves in 100 cm^3 of hot water
- repeats her method with 100 cm^3 of cold water
- records her results in her notebook.

hot water
solid B = 85 g which was the highest
A = 40 g
C = 64 g and D was 42

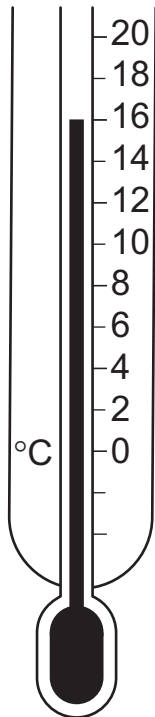
cold water
solid A = 32 g B = 68 g
D was 37 g but C was only 25

(a) Complete the results table to show Aiko's results.

solid	how much solid dissolves in hot water in g	how much solid dissolves in cold water in g
A		
B		
C		
D		

[1]

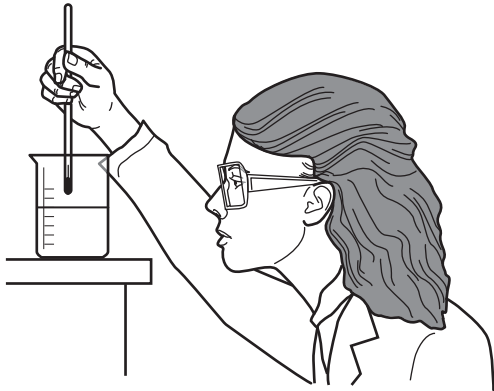
- (b) The diagram shows part of the thermometer used to measure the temperature of the cold water in the beaker.



What is the temperature shown by this thermometer?

temperature = °C [1]

(c) The picture shows Aiko measuring the temperature of the water in the beaker.



Look at the picture.

This is **not** the correct way to measure the temperature of the water with a thermometer.

Explain why.

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

(d) Aiko concludes that less solid dissolves in the cold water.

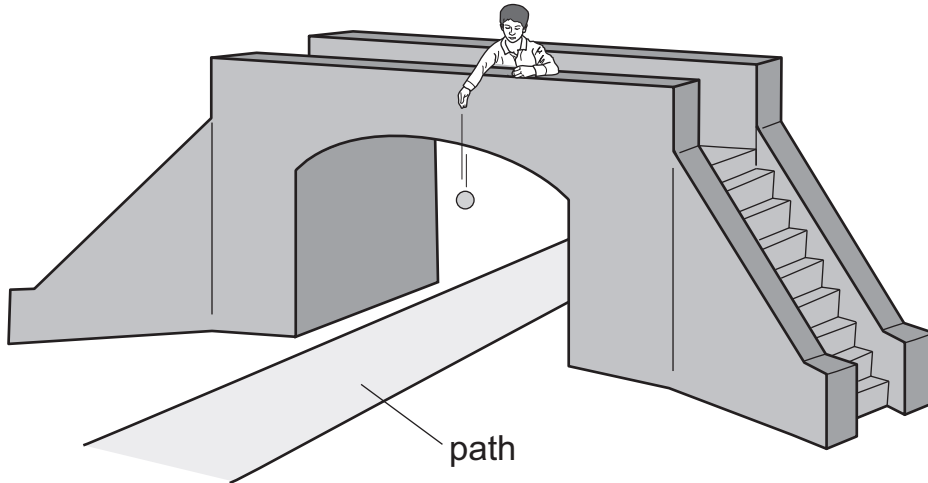
Explain why less solid dissolves in the cold water.

Use ideas about particles in your answer.

.....
.....
..... [2]

- 12** Youssef investigates how the weight of an object affects the time it takes to fall from the same height.

He drops five objects of different weights from a bridge and times how long each object takes to fall onto the path.



- (a)** Youssef wants to make sure his investigation is fair.

Complete these sentences about his investigation.

The independent variable is

The dependent variable is

The control variable is

[2]

- (b)** Write down **one** risk when doing this investigation and suggest how Youssef reduces the risk.

risk

how Youssef reduces the risk

.....

.....

[1]

(c) Youssef uses this watch to measure the time it takes for the object to fall.



Youssef wants to make his measurement more accurate.

Name the equipment he uses to measure the time more accurately.

..... [1]

13 Jamila examines some samples of rock.

She wants to know what type of rock each sample is.

She finds this information.

igneous rocks	sedimentary rocks	metamorphic rocks
— formation — solidification of magma or lava	— formation — compression of sediments	— formation — changing of older rocks
— characteristics — no layers may contain large or small crystals	— characteristics — have layers easy to crumble	— characteristics — sometimes have layers harder than sedimentary rocks

Complete the table by writing in the type of rock.

rock	description	type of rock
granite	no layers contains large crystals	
gneiss	contains wide layers harder than sandstone	
sandstone	made of small grains easily crumbles	

[2]

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