Catholic High School (Primary)
Primary 6 Science 2025
Non-Weighted Assessment 2

Name: _____ ( )

Class: Pri. 6 - _____

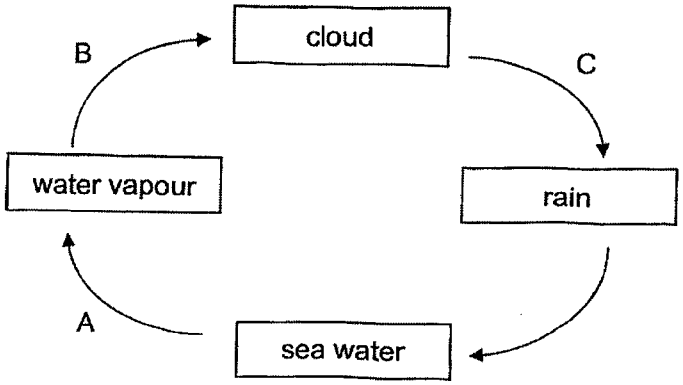
MARKS	/ 30

Date: 6 May 2025

Parent's Signature: _____

Booklet A (10 × 2 marks)
For each question from 1 to 10 four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Write its correct number in the brackets provided.
(20 marks)

1 The diagram represents the water cycle.

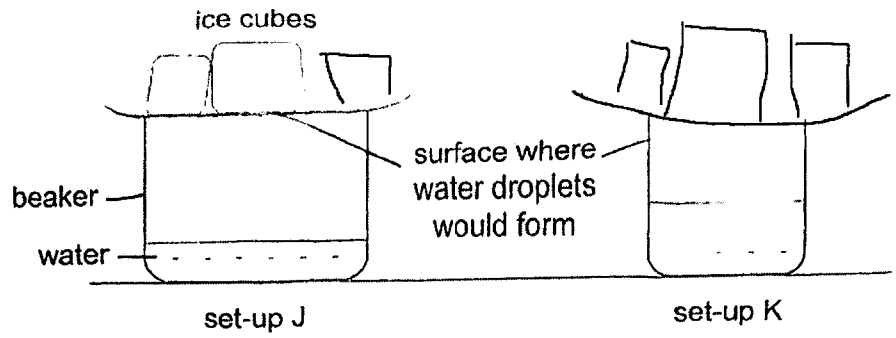


What of the following is correct?

	Condensation occurred at	Evaporation occurred at
(1)	B	A
(2)	B	C
(3)	C	A
(4)	C	B

( )

2 Set-ups J and K were placed on a table. They contained equal amounts of water at 70 °C and equal number of ice cubes as shown. The beaker in set-up K was narrower.



After a while, more water droplets formed in set-up J.
Which statement explains this observation?

(1) More water evaporated because the water was warmer.

(2) More water condensed because the ice cubes were colder.

(3) More water evaporated because the exposed surface area of water was larger.

(4) More water vapour condensed because there was less air movement in the beaker. ( )

3 Rashida conducted an experiment using four set-ups with beakers each containing an equal volume of water at the start of the experiment.

At the end of the experiment, she recorded her results as shown.

Set-up	Exposed surface area of beaker (cm^2)	Windy	Location	Volume of water left in beaker (ml)
W	70	yes	open field	160
X	100	yes	under a tree	165
Y	70	no	under a tree	170
Z	100	yes	open field	150

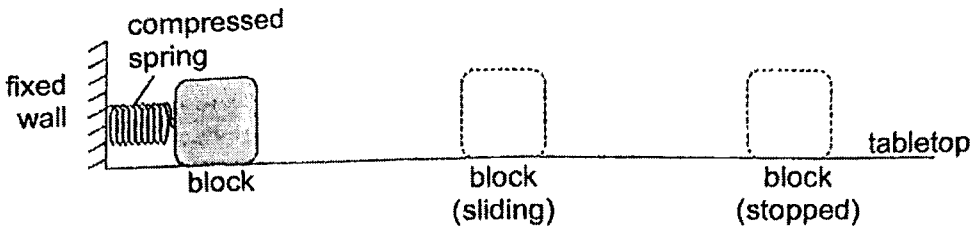
Which two set-ups support the hypothesis, "the greater the exposed surface area of the water, the lesser the volume of water left in the beaker"?

(1) W and Y
(2) W and Z
(3) X and Y
(4) X and Z ( )

4 Which of the following is **not** an effect of a force?

(1) a pump inflating a balloon
(2) a mirror reflecting an image
(3) a boy kicking a soccer ball coming towards him
(4) a piece of paper being folded into an aeroplane ( )

5 In the set-up, a compressed spring was used to push a block. The block would then slide along the tabletop before stopping.

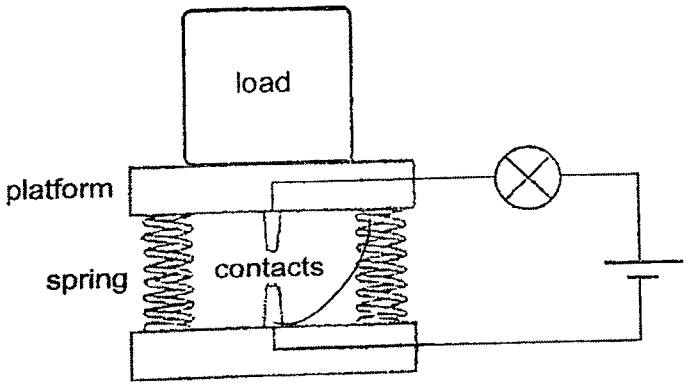


Which force(s) acted on the sliding block?

	Elastic spring force	Gravitational force	Frictional force
(1)	yes	yes	yes
(2)	yes	no	yes
(3)	no	yes	no
(4)	no	yes	yes

( )

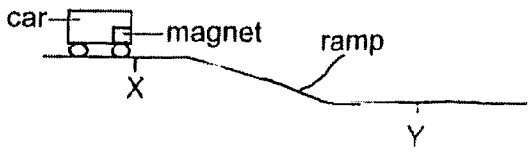
6 In the set-up, the bulb will light up if the load has a mass of 15 kg or more.



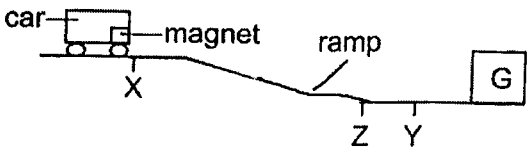
How can the set-up be changed so that the bulb will light up if the load has a mass of 12 kg?

(1) increase the length of the contacts
(2) use longer springs of the same type
(3) use stronger springs of the same lengthx
(4) increase the thickness of platform but of the same mass ( )

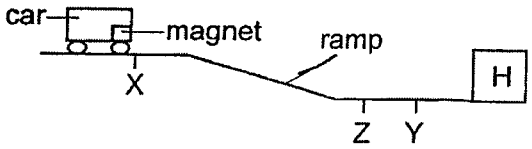
7 Meiling set up an experiment as shown.
When she pushed the car from X, it moved down the ramp and stopped at point Y.



She repeated the experiment with object G placed near Y. She pushed the car from X with the same force and it moved down the ramp, and then rolled backwards before stopping at Z. The car did not touch object G



She replaced object G with object H and pushed the car from X with the same force. The car moved towards object H at a faster speed, made contact with it and stopped.



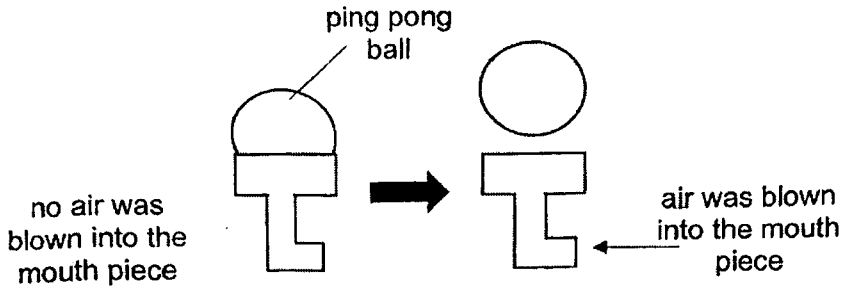
What could objects G and H possibly be?

	G	H
(1)	copper block	magnet
(2)	magnet	iron block
(3)	iron block	glass block
(4)	magnet	copper block

( )

8 Hock Siang placed a ping pong ball on a mouthpiece as shown.

He then blew into the mouthpiece and observed the ball hovering in mid-air for a short period of time.



Which statement(s) explained why the ball was able to hover in mid-air?

A The force exerted by the moving air was greater than the weight of the ball.

B The warm air exhaled from the mouth heated the air up and cause the ball to rise.

C The gravitational force acting on the ball was greater than the force exerted by the moving air.

(1) A only

(2) A and B only

(3) B and C only

(4) A, B and C ( )

9 A scientist conducted a study and observed that organism L prefers a dark and moist environment.

The table shows two physical characteristics, X and Y, and the habitats that organisms live in.

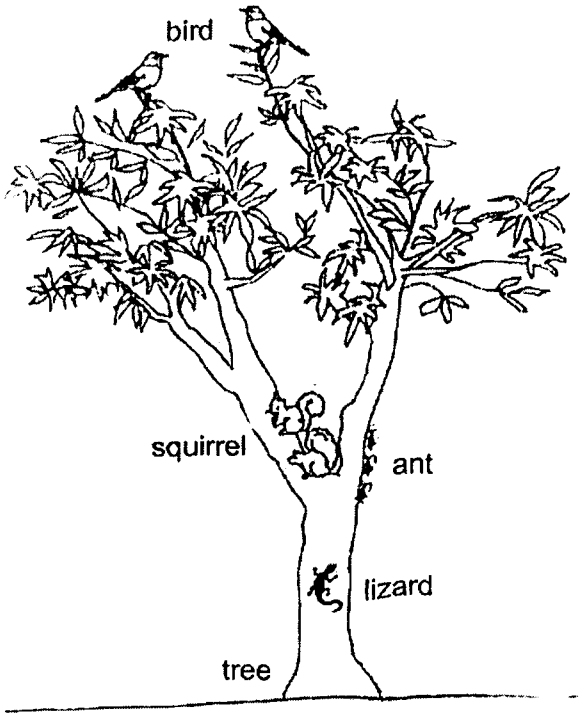
Habitat	Characteristic X	Characteristic Y
field	high	high
desert	low	high
M	low	low
N	high	low

What habitat does organism L live in and what are the characteristics of X and Y?

	Habitat of L	Characteristic X	Characteristic Y
(1)	M	temperature	amount of light
(2)	N	temperature	amount of light
(3)	M	amount of water in the soil	temperature
(4)	N	amount of water in the soil	amount of light

( )

10 A tree supports only the organisms shown.



Which of the following is correct?

(1) The squirrels form a community.

(2) The tree is a habitat for the organisms.

(3) The birds and the tree form one community.

(4) There are four populations of organisms in the habitat. ( )

Booklet B (10 marks)

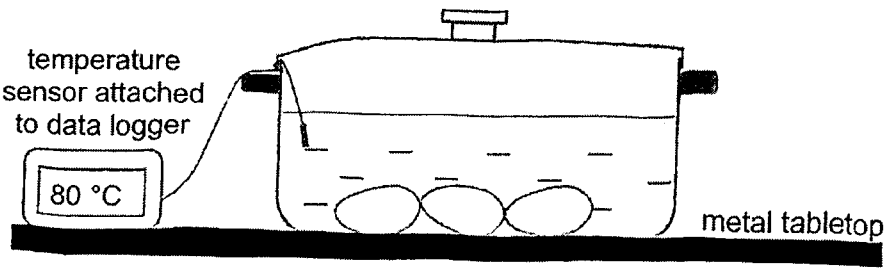
For questions 11 to 13, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

11 **(a)** State what boiling means. [1]

_____

_____

Melvin wanted to cook some eggs at 80 °C. When the water boiled, he removed the pot from the stove and placed it on a metal tabletop. He added some cold water before putting in some eggs. He covered the pot for 12 minutes.



(b) Without reheating the pot, suggest two ways that Melvin can do to ensure that the water was kept at about 80 °C in the same pot. [2]

(i) To reduce heat loss from the water: _____

_____

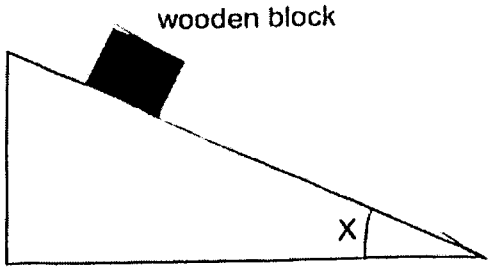
(ii) To supply heat to the water: _____

_____

(Go on to the next page)

SCORE	3

12 Keith placed a wooden block on a ramp as shown.



When angle X was 5°, the block did not slide down the ramp. He gradually increased angle X by making the ramp steeper until the block first began to slide. He recorded angle X when this happened.

He conducted the experiment using ramps made of two other different surfaces. The results of the experiment are as shown.

Type of surface	Angle X (°)
rubber	45
wood	30
plastic	20

(a) When angle X was 5°, the block did not slide down the ramp. Explain why. [1]

_____

_____

(b) Explain why angle X was smaller for the plastic surface as compared to the wooden surface. [1]

_____

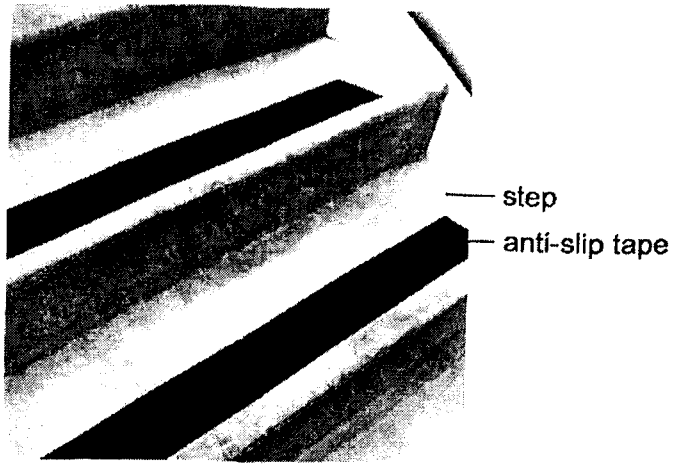
_____

(Go on to the next page)

SCORE 2

Continued from Question 12

The picture shows a staircase with anti-slip tapes pasted to the steps to help prevent slipping while walking down.



(c) Based on the results, which material is most suitable for making the anti-slip tape? Explain why. [2]

_____

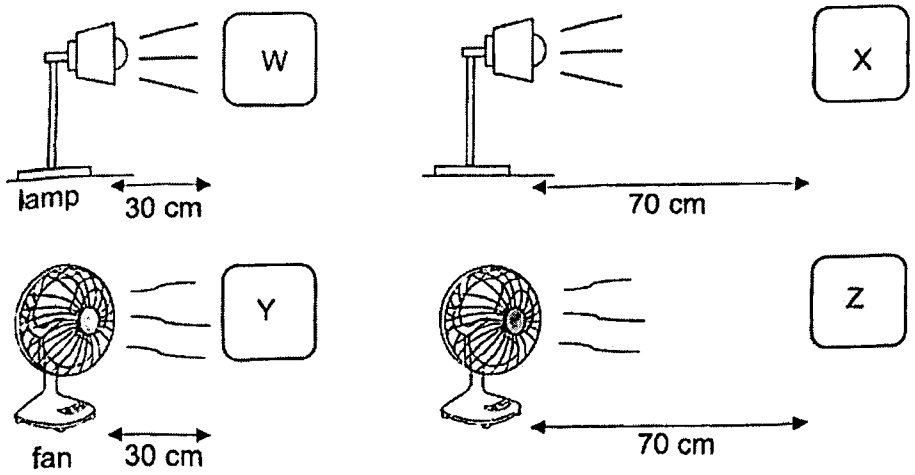
_____

_____

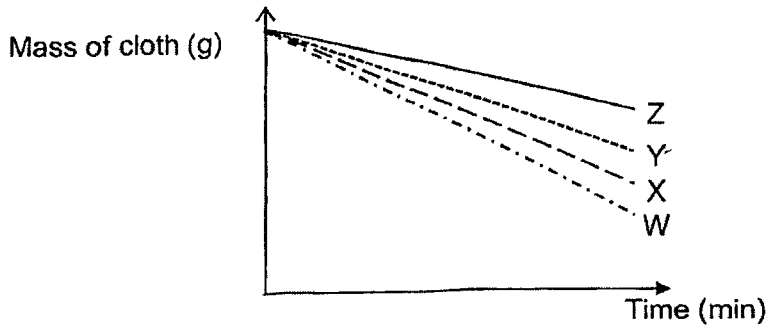
(Go on to the next page)

SCORE	2

13 Aloysius conducted an experiment using the set-ups as shown. He added the same amount of water onto four similar cloths, W, X, Y and Z.



The graph shows the mass of each cloth over a period of time.



(a) Based on the graph, explain how the different distances of the lamp from the cloth affect the mass of the cloth. [2]

_____

_____

_____

(b) Based on the graph, which variable, light or wind, has a smaller effect on the mass of the cloth? Give a reason. [1]

_____

_____

SCORE / 3

End of Paper

SCHOOL : CATHOLIC HIGH PRIMARY SCHOOL

LEVEL : PRIMARY 6
SUBJECT : SCIENCE
TERM : WA2 2025

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	3	2	2	4	1	2	1	4	2

P6 Non-weighted Assessment 2
Science Corrections

Name: _____ ( ) P6 Goo Date: May2025

No.		Remarks
11a	Boiling involves a change in state from **liquid to gas** at a **fixed temperature**.	Please revise all definitions. Definitions should not change / defer from what is given. When you repeat the word that requires you to define, you are not defining it.
11b	(i) To reduce heat loss from the water: **Cover the outside of the pot with a poor conductor of heat place the pot on a wooden tabletop.** (ii) To supply heat to the water: **Add more water at 80c / Add more boiling water**	Command word: explain why Question is asking you to maintain the temperature of water at 80°C. WO What does hot water means? 45°C is also considered hot water. 'Hot' is subjective.
12a	Question state that block did not slide. **Ask yourself what is stopping the block from sliding down?** The **frictional force** between the **wooden block** and **the surface of ramp** was **greater** than the **gravitational force** acting on the wooden block.	Command word: explain why **What causes ball to roll down slope?** Gravitational force is acting on the ball -that is the reason why it could roll down.

12b	Question asks '**explain why**' the angle X was smaller for the plastic surface. **Cause:** Plastic had a smoother surface than wood, **Effect:** so there was less frictional force between the wooden block and the plastic surface.	Command word: explain why Cause and Effect
12c	**Choice:** Material rubber. **Evidence:** *(go back to the result table, ask yourself why you chose rubber instead of the other materials)* Angle X was the largest when the wooden block slide down the surface. **Reasoning:** *(relate the concept with the context)* Hence, it will have the most amount of frictional force between the sliptape and the soles of the shoes / feet of people	Command word: explain why The result table will help you to justify your choice. *more than 1 surfaces, so must have comparative word.
13a	Based on the graph, explain how the different distances of the lamp from the cloth affect the mass of the cloth. The further the lamp is from the cloth, (start) ⬇ the lower the temperature of the surroundings around the cloth. ⬇ The rate of evaporation of water decreases ⬇ thus, the mass of the cloth is greater. (end)	Command word: explain how Identify the concept tested here: Rate of evaporation

13b	Based on the graph, which variable, light or wind, has a smaller effect on the mass of the cloth? Give a reason. Variable: **wind** Comparing set-ups **W and Y**, *(From the graph)* Cloth W has a **greater change in mass** than cloth Y **within the same period**. OR Comparing set-ups **X and Z**, *(From the graph)* Cloth X has a **greater change in mass** than cloth Z **within the same period**.	Command word: give a reason (do not require to explain) How to decide which variable? (Keep all other variables the same, except for the CV: presence of light / wind) Which set-up will you compare to decide?