Name: _____ ( )

Class: Primary 4

28 October 2025

SINGAPORE CHINESE GIRLS' SCHOOL
END-OF-YEAR EXAMINATION 2025

PRIMARY 4
SCIENCE

BOOKLET A

Total Time for Booklets A and B: 1h 45 min

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Use a 2B pencil to shade your answers on the Optical Answer Sheet (OAS).

This booklet consists of 17 printed pages.

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For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet.

[60 marks]

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1 Which one of the animals shown below is not an insect?

(1)



(2)



(3)



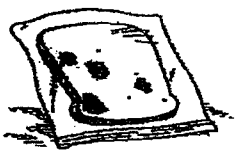
(4)



2 The diagram shows two types of fungi.



mushroom



mould

Which statement is true of fungi?

(1) They cannot be eaten.

(2) They reproduce by spores.

(3) They are non-flowering plants.

(4) They can only be seen under a microscope.

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3 Which human system is shown in the diagram below?



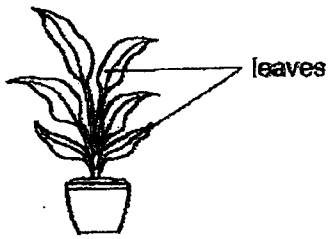
(1) skeletal system

(2) muscular system

(3) circulatory system

(4) respiratory system

4 The diagram below shows a plant.



The leaves help the plant to _____.

(1) make food

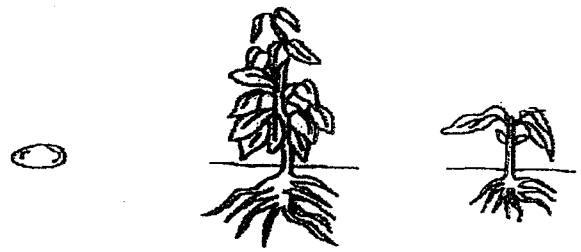
(2) grow upright

(3) absorb water

(4) transport food

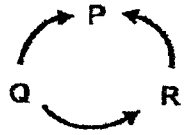
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5 P, Q and R are the stages in the life cycle of a plant.

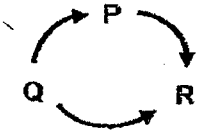


Which of the following shows the correct life cycle of the plant?

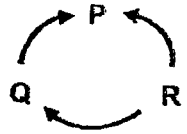
(1)



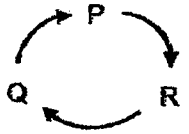
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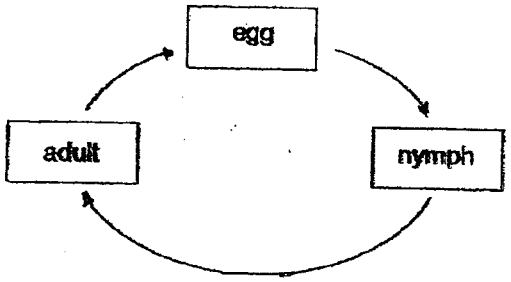
(3)



(4)



6 The diagram below shows the life cycle of an animal.



Which animal is likely to have the life cycle shown above?

(1) frog

(2) beetle

(3) butterfly

(4) grasshopper

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7 The diagram shows a door handle used to open a door.



Metal is used to make the door handle because metal _____.

(1) is shiny

(2) is heavy

(3) is strong

(4) conducts heat well

8 Which one of the following properties is true for both air and a ruler?

(1) They can be seen.

(2) They take up space.

(3) They have fixed shapes.

(4) They have fixed volumes.

9 A metal spoon is placed in a bowl of hot soup.



The spoon becomes hotter after a while. Which one of the following explains this?

(1) The bowl loses heat to the hot soup.

(2) The spoon loses heat to the hot soup.

(3) The hot soup gains heat from the spoon.

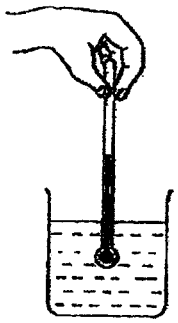
(4) The spoon gains heat from the hot soup.

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10 Jan wants to measure the temperature of water in a beaker.

Which one of the following shows the correct position of the thermometer when taking the temperature reading?

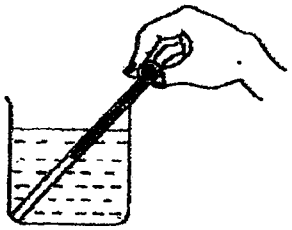
(1)



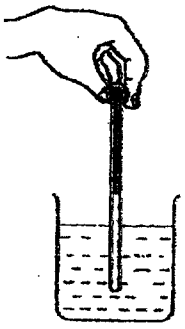
(2)



(3)



(4)



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11 The table shows the characteristics of P, Q and R.

	Can it make its own food?	Is it able to grow?	Can it move on its own?
P	x	x	✓
Q	x	✓	✓
R	✓	✓	x

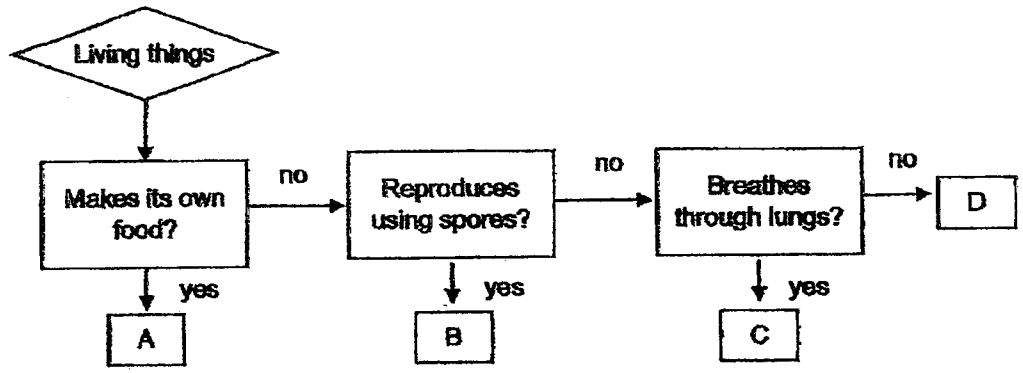
Key

✓ : yes
x : no

Based on the table, which of the following is/are living thing(s)?

(1) R only
(2) P and R only
(3) P and Q only
(4) Q and R only

12 Study the chart.

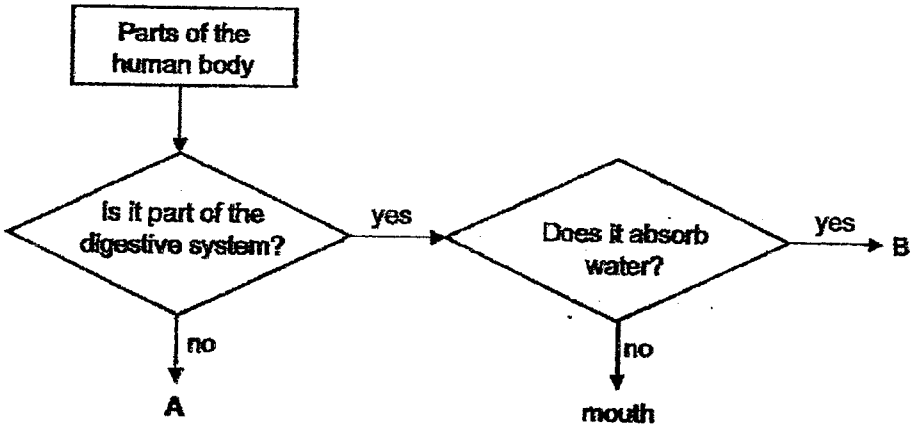


Which of the following is correct?

	Fern	Crocodile
(1)	A	C
(2)	A	D
(3)	B	C
(4)	B	D

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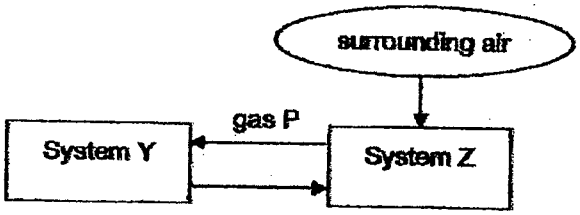
13 Study the flow chart below.



What could parts A and B be?

	A	B
(1)	windpipe	large intestine
(2)	windpipe	stomach
(3)	gullet	stomach
(4)	gullet	large intestine

14 The diagram below shows how gases are transported in the human body.



Identify system Y and gas P.

	System Y	Gas P
(1)	respiratory	oxygen
(2)	respiratory	carbon dioxide
(3)	circulatory	oxygen
(4)	circulatory	carbon dioxide

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15 The table shows the characteristics of the life cycles of animals J and K.

Characteristic of life cycle	Animal	
	K	J
lays eggs in water	yes	yes
has a larval stage	no	yes
moults a few times	yes	yes

Which of the following statements **cannot** be concluded from the table above?

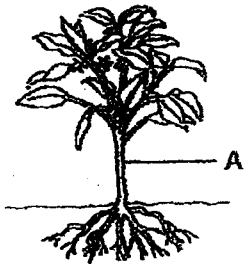
(1) Both J and K are insects.

(2) Both J and K have a 4-stage life cycle.

(3) K has a pupal stage but J does not.

(4) The young of K looks like the adult but the young of J does not.

16 The diagram shows a plant.



Which of the following correctly identifies the function(s) of part A?

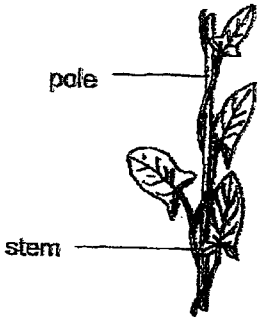
	Holds the plant upright	Holds the plant firmly to the ground	Supports the leaves to get enough light
(1)	✓	✓	✓
(2)	*	✓	*
(3)	*	*	✓
(4)	✓	*	✓

Key

✓ : yes
* : no

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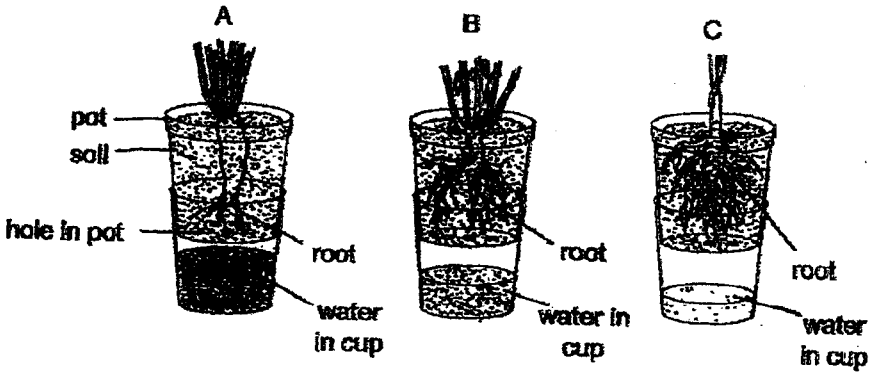
17 The plant climbs up the pole to get more _____.



(1) sunlight
(2) air and sunlight
(3) water and sunlight
(4) water and mineral salts

18 Fatimah prepared three set-ups, A, B and C. She poured the same volume of water into each set-up. The volume of water collected in each cup was measured after 10 minutes.

Her results are shown below.



Fatimah was trying to find out if the _____.

(1) amount of soil affected the size of plant roots
(2) volume of water affected the growth of plants
(3) type of root affected the volume of water given to each plant
(4) type of root affected the volume of water absorbed by the plant

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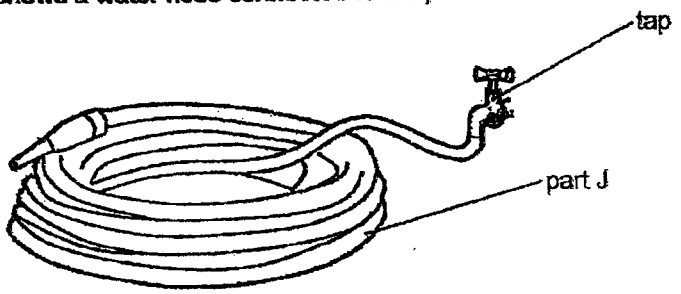
19 Alyssa wants to find out if the amount of light affects the growth of a plant. The table below shows the four set-ups, P, Q, R and S.

Set-up	Type of plant	Location	Amount of water given to the plant daily (ml)
P	chilli plant	sunny	50
Q	sunflower plant	sunny	100
R	sunflower plant	shady	100
S	fern	shady	50

Which two set-ups should Alyssa use to conduct a fair test?

(1) P and Q
(2) P and S
(3) Q and R
(4) R and S

20 The diagram below shows a water hose connected to a tap.



Which properties of the material make it suitable to make part J?

A strong
B flexible
C waterproof

(1) A and B only
(2) A and C only
(3) B and C only
(4) A, B and C

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21 Ken hung two objects C and D on the weighing balance as shown in Diagram 1.

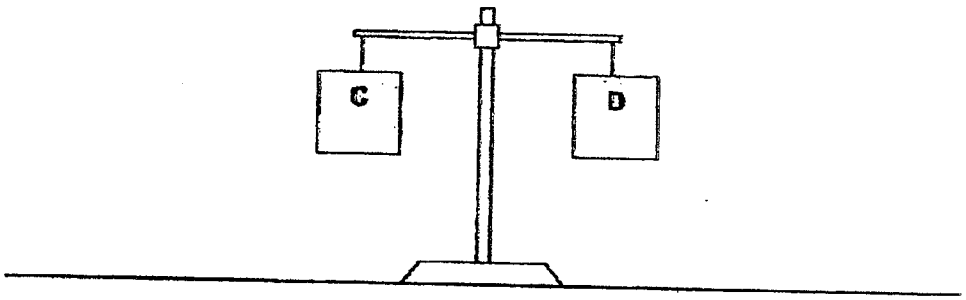


Diagram 1

He then placed a magnet below object D in Diagram 2. He repeated the experiment by placing the magnet below object C as shown in Digram 3.

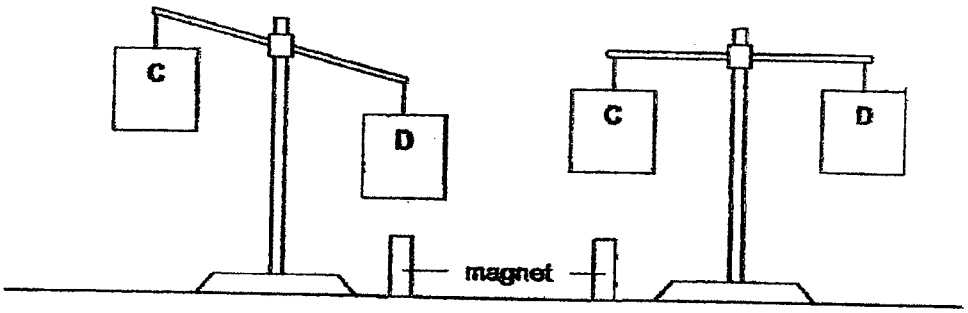


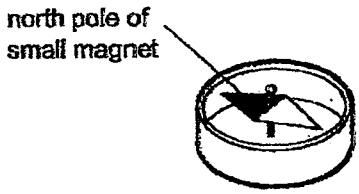
Diagram 2 Diagram 3

Which conclusion about objects C and D is correct?

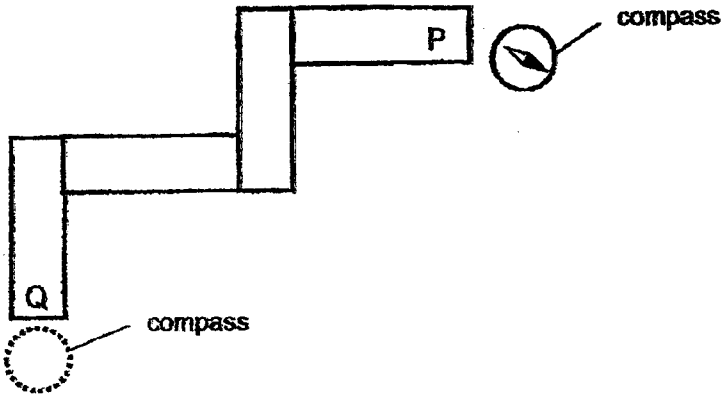
	object C	object D
(1)	plastic	iron
(2)	plastic	wood
(3)	iron	steel
(4)	iron	wood

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22 A compass contains a small magnet that can rotate freely as shown below.



Four bar magnets are arranged such that they are attracted to one another. A compass is then placed near end P. The direction of the compass needle is as shown below.



What would the direction of the needle be when the compass was placed at Q?

(1) 

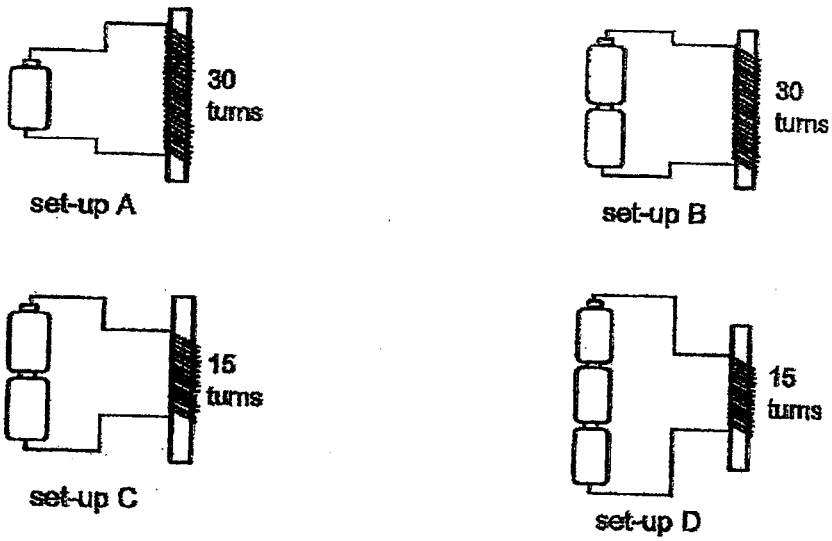
(2) 

(3) 

(4) 

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23 Muthu constructed four set-ups using similar batteries, wires and iron rods as shown below.

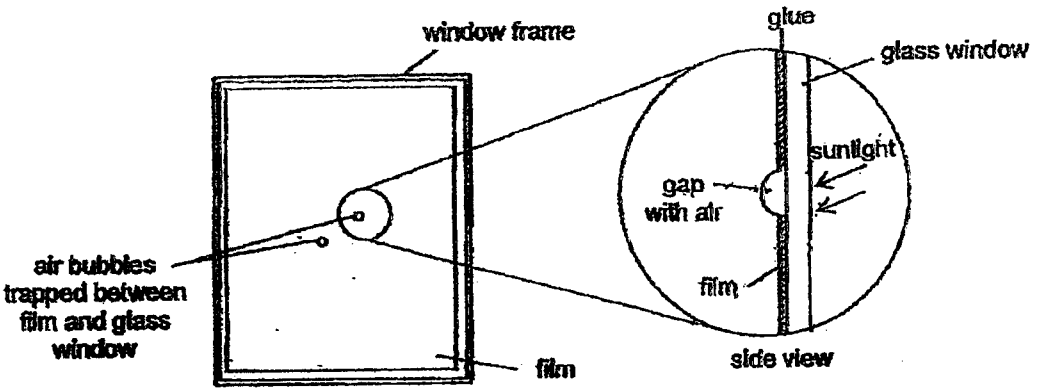


Which of the set-ups should he use to achieve the respective aim?

	Set-up	Aim
(1)	A and B	To find out how the number of coils affect the strength of the electromagnet.
(2)	A and D	To find out how the number of batteries affect the strength of the electromagnet.
(3)	B and C	To find out how the number of coils affect the strength of the electromagnet.
(4)	C and D	To find out if the type of rod affects the strength of the electromagnet.

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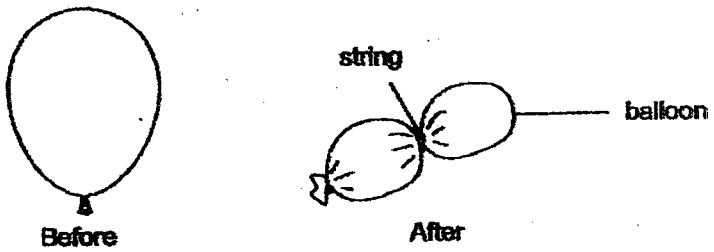
24 Deming pasted a film on a glass window to reduce the amount of sunlight coming into the room. Some air bubbles were trapped under the film as shown below.



What will happen to the total volume and the mass of air in the gap if the weather becomes hotter for a few weeks?

	Volume of air in the gap	Mass of air in the gap
(1)	increase	increase
(2)	remain the same	increase
(3)	remain the same	remain the same
(4)	increase	remain the same

25 Daniel blew a balloon and tied it with a piece of string as shown.



Daniel's experiment shows that _____.

(1) air has mass
(2) air occupies space
(3) air has no definite shape
(4) air has no definite volume

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26 The diagram shows the changes in state of matter.



Which of the following is correct?

	X	Y
(1)	heat gain	heat loss
(2)	heat gain	heat gain
(3)	heat loss	heat gain
(4)	heat loss	heat loss

27 Diana stepped onto a mat and felt that the mat was warmer than the floor.

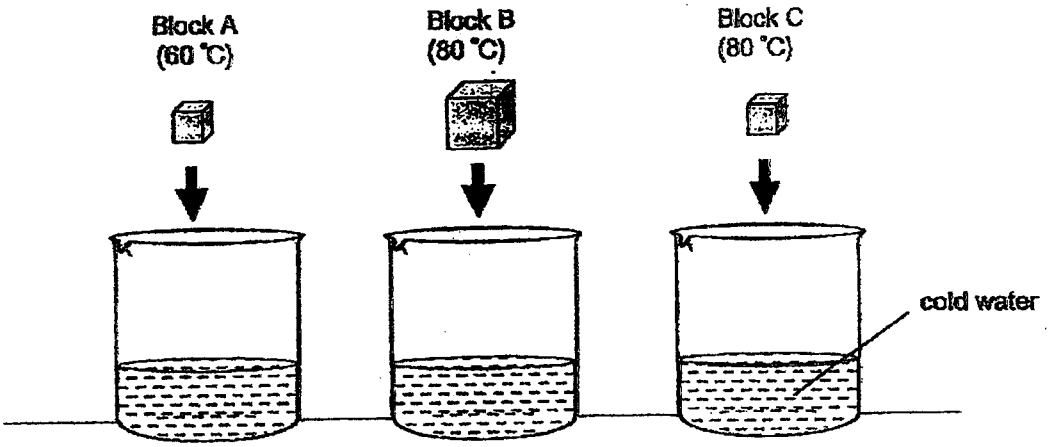


Why did Diana feel that the mat is warmer than the floor?

(1) The mat has a lower temperature than the floor.
(2) The mat has a higher temperature than the floor.
(3) The mat is a poorer conductor of heat than the floor.
(4) The mat is a better conductor of heat than the floor.

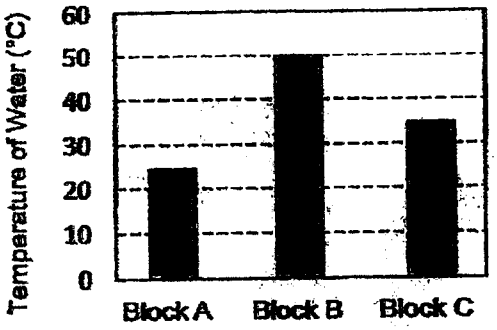
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28 Roshni heated three steel blocks of different sizes to different temperatures. She then dropped each cube into the same amount of cold water in three similar beakers. The temperature of the cold water was 10 °C at the start of the experiment.

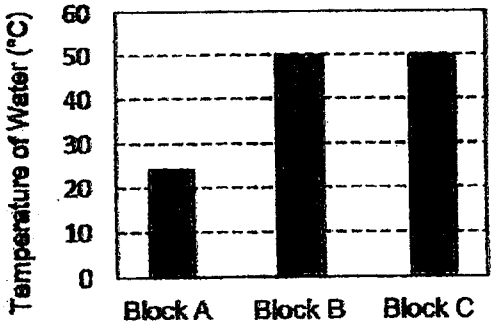


Which graph below correctly shows the temperature of the cold water a minute after the blocks were added?

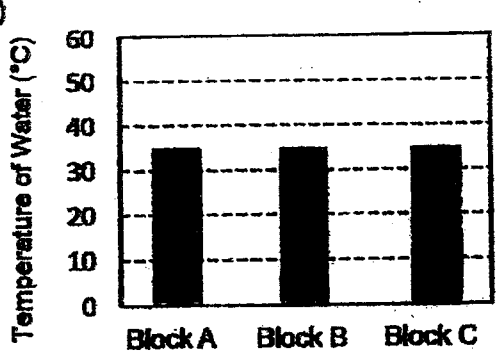
(1)



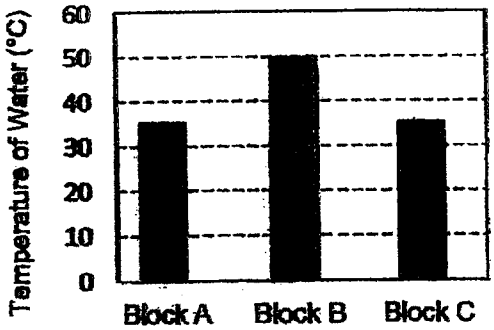
(2)



(3)



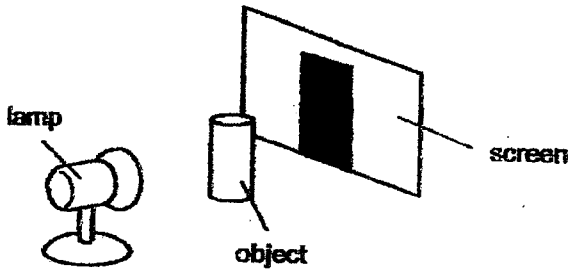
(4)



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Use the information below to answer Questions **29** and **30**.

29 Study the diagram below.



The shadow of the object is formed on the screen because the object _____.

(1) blocks light
(2) reflects light
(3) absorbs light
(4) gives off light

30 Which of the following will allow a smaller shadow to be formed on the screen?

A move the lamp nearer to the screen
B move the lamp further away from the object
C move the object nearer to the screen

(1) A and B only
(2) A and C only
(3) B and C only
(4) A, B and C

END OF BOOKLET A

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Name: _____ ( )

Class: Primary 4

28 October 2025

SINGAPORE CHINESE GIRLS' SCHOOL
END-OF-YEAR EXAMINATION 2025

PRIMARY 4
SCIENCE

BOOKLET B

Total Time for Booklets A and B: 1h 45 min

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.

	Marks Obtained	Highest Possible Marks
Booklet A		60
Booklet B		40
Total		100

This booklet consists of 13 printed pages.

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For questions 31 to 42, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

[40 marks]

31 (a) Jasmine observed and grouped some animals as shown in the table.

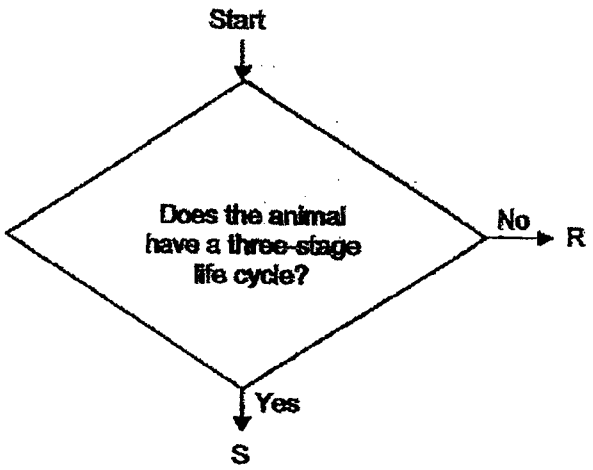
F	G
tortoise lizard crocodile	frog salamander toad

What are the suitable headings for F and G? [2]

Group F: _____

Group G: _____

31 (b) Study the flow chart below. [2]



Read the following statements and put a tick (✓) in the correct box.

Statement	True	False
(a) Animal R can be a cockroach		
(b) Animal S can be a chicken.		

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SCORE	4

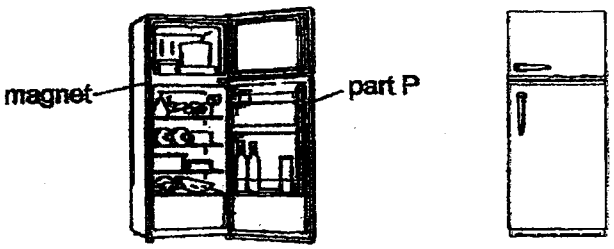
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32 Classify the following into matter and non-matter. [2]

air	light	shadow	sand

Matter	Non-Matter

33 Magnets are used to keep the refrigerator door closed. Part P, together with the magnet, helps to keep the refrigerator closed.



open closed

(i) Circle the correct answer. [1]

A material that can be used to make P is (steel / plastic / wood).

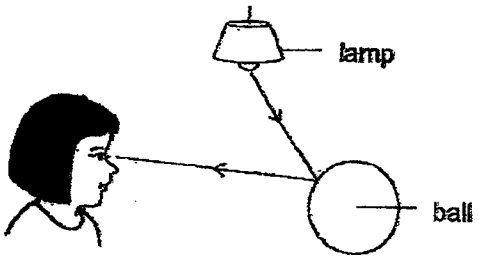
(ii) The refrigerator door will not open easily because the magnet _____ part P. [1]

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SCORE	
	4

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34 The diagram below shows how Sarah sees the ball.



Fill in the blanks.

The _____ from the lamp is _____ by the ball and enters Sarah's eye.

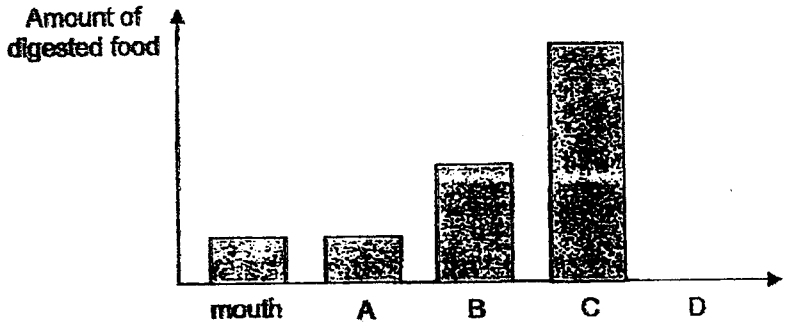
[2]

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SCORE	2

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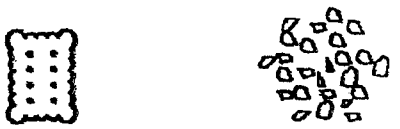
35 The graph below shows the amount of digested food in parts A, B, C and D of the digestive system.



(a) Explain why the mouth and part A had the same amount of digested food. [1]

(b) Based on the graph, which part, A, B, C or D, most likely represents the large intestine? Explain your answer. [1]

The diagram below shows how a piece of biscuit looks like before and after being chewed for a minute.



before chewing after chewing

(c) Explain how chewing affects the amount of time needed to completely digest the piece of biscuit. [2]

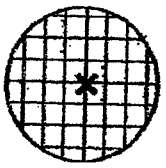
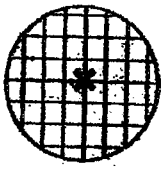
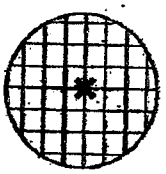
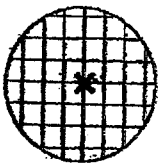
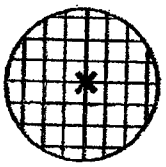
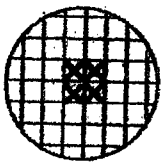
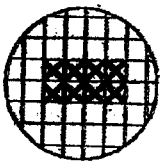
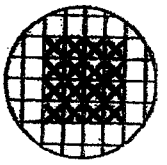
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SCORE 4

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36 Bacteria S is found on cooked food and can cause food to go bad when it is present in large numbers.

Priya conducted an experiment to find out how quickly bacteria S reproduced on cooked rice when it was kept at different temperatures. The results of her experiment are shown below. The number of crosses (x) represents the amount of bacteria present in the sample.

	Temperature of cooked rice			
	5°C	10°C	20°C	30°C
At start of experiment				
After 8 hours				

(a) Based on Priya's experiment, what does bacteria S need to reproduce? [1]

(b) From the results of her experiment, explain why it is not suitable for cooked rice to be kept at 30°C. [1]

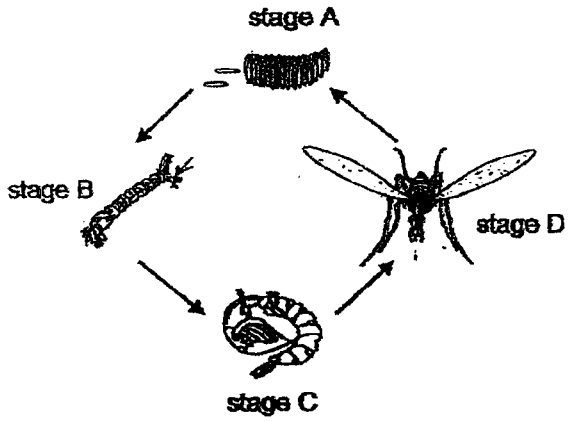
(c) Suggest how using the same type and amount of cooked rice for the experiment helps ensure a fair test. [1]

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SCORE / 3

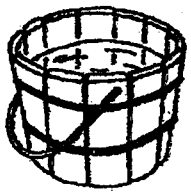
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37 The diagram below shows stages A, B, C and D in the life cycle of a mosquito.



(a) Which of the stages above is/are found in water? [1]

(b) Katie found a bucket of stagnant water in her bathroom as shown below.



Her mother asked her to pour the water away immediately. Based on the life cycle of a mosquito, explain why this step is important. [1]

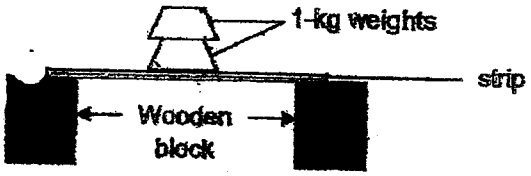
(c) Name another insect that has the same number of stages in its life cycle as the life cycle of a mosquito. [1]

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SCORE	/ 3

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38 Paul set up an experiment as shown below to compare the property of three strips of material, A, B and C.



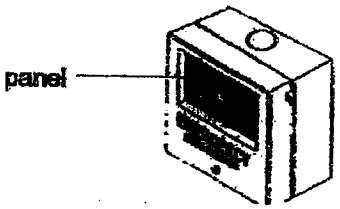
He placed 1-kg weights on each strip until it broke and recorded the number of 1-kg weights needed to break the strip.

Material	Number of 1-kg weights needed to break the strip
A	10
B	6
C	2

(a) What property of the strip was Paul trying to investigate? [1]

(b) What is one variable that must be kept constant to make this a fair test? [1]

(c) During a fire, someone needs to break the panel to press the emergency button to sound the fire alarm.



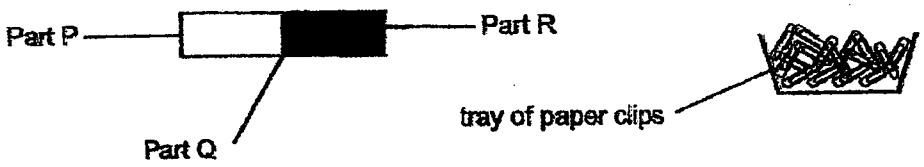
(d) Using the results from Paul's experiment, which material, A, B or C, is most suitable to be used to make the panel of the fire alarm? Give a reason for your answer. [2]

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SCORE 4

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39 Jan wanted to study whether the number of times a bar magnet is hit by a hammer could affect its strength. She hit the magnet with a hammer and then placed the magnet over a tray of paper clips.



She recorded her results in the table below.

Number of times the magnet was hammered	Number of paper clips attracted by Part P	Number of paper clips attracted by Part Q	Number of paper clips attracted by Part R
0	15	0	16
10	12	0	11
20	9	0	9
30	5	0	4

(a) Based on the results, what is the relationship between the number of times the magnet is hammered and the strength of the bar magnet? [1]

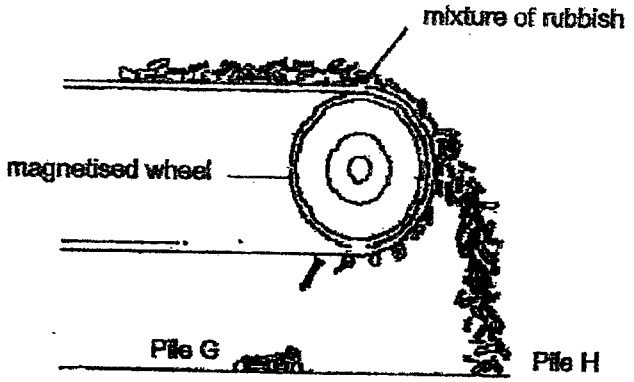
(b) What variable did Jan measure to determine the strength of the bar magnet? [1]

(c) Based on the results, what can Jan conclude about the characteristic of a magnet? [1]

Question 39 continues on next page

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(d) The diagram below shows an electromagnet at a recycling centre. The mixture of rubbish contains objects made of paper, iron, aluminium and glass. After the mixture of rubbish runs through the magnetised wheel, two piles G and H, can be observed.



State the objects, paper, iron, aluminium and glass, that can be found in piles G and H in the table below. [2]

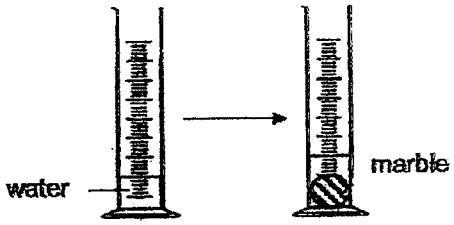
Pile G	Pile H

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SCORE	5

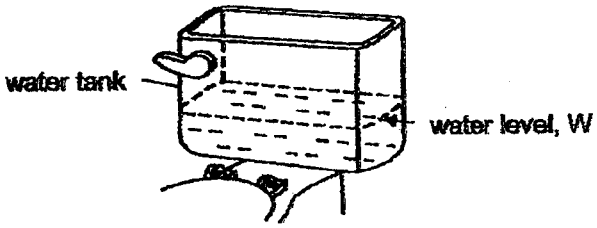
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40 Jiawei placed a large marble into a cylinder of water as shown.



(a) What is the property of matter shown by the marbles in the experiment? [1]

(b) The diagram below shows a water tank used to flush a toilet bowl. After flushing, water flows into the tank to refill it. The flow of water stops when the water level reaches W.



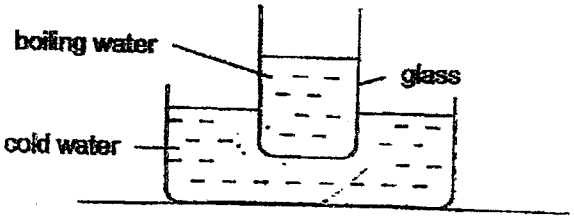
Based on the results of her experiment, suggest one way for Jiawei to use less water to flush the toilet bowl. Explain your answer. [2]

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SCORE	/ 3

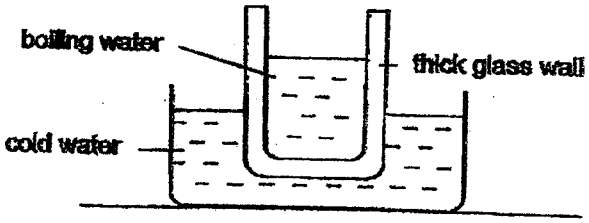
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41 Siti placed a glass of boiling water in cold water as shown.



(a) In the diagram above, draw one arrow to show the direction of heat flow between the glass of boiling water and the cold water. [1]

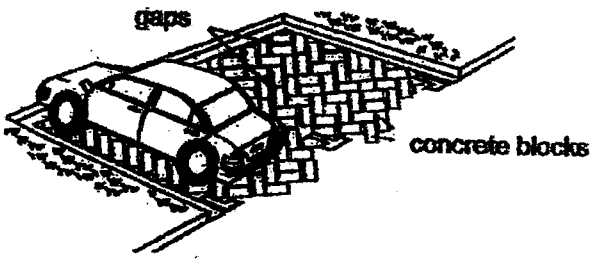
Next, Siti poured boiling water into a thick-walled glass. She placed the glass in cold water as shown below.



(b) Circle the correct answers. [2]

As the inner layer of the glass wall is in direct contact with the boiling water, it will (*gain* / *lose*) heat and expand (*faster* / *slower*) than the outer layer of the glass. Due to uneven expansion, the glass wall will crack.

(c) Carpark lots are often covered with concrete blocks with gaps as shown.



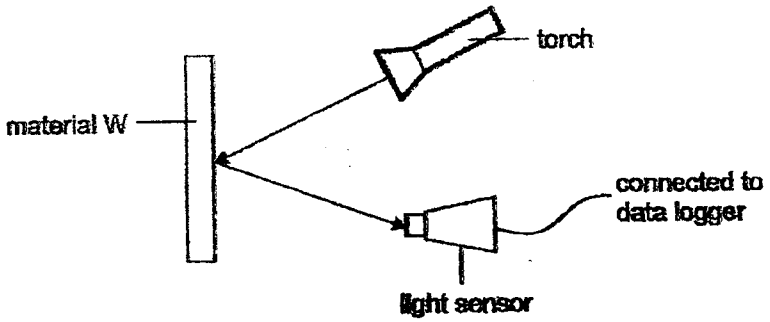
Explain how these gaps help to prevent cracks in the blocks on a hot day. [2]

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SCORE 5

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42 Ben wants to find out how well materials W, X, Y and Z reflect light. He shone a torch on material W and measured the amount of light detected by the light sensor. His set-up is shown in the diagram below.



He repeated the experiment with materials X, Y and Z. His results are recorded in the table below.

Material	Amount of light detected by light sensor (units)
W	300
X	150
Y	230
Z	360

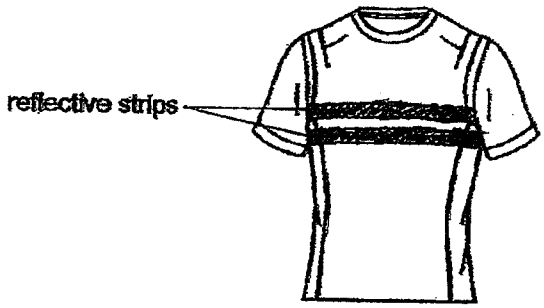
(a) Which variables should Ben change, measure and keep the same to ensure that his experiment is a fair test? Tick (✓) the correct boxes. [1]

Variable	Changed	Measured	Kept the same
type of material			
amount of light from the torch			
amount of light detected by light sensor			
distance between the torch and the material			

Question 42 continues on the next page

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The diagram below shows a running shirt with reflective strips to allow runners to be seen by drivers at night easily.



(b) Based on Ben's results, which material, W, X, Y or Z, is most suitable to make the reflective strips on the running shirt? Explain your answer. [2]

END OF BOOKLET B

SCORE	3

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YEAR : 2025
LEVEL : PRIMARY 4
SCHOOL : SCGS
SUBJECT : SCIENCE
TERM : END-OF-YEAR EXAMINATION

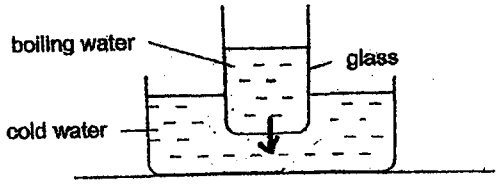
BOOKLET A

Q1	1	Q2	2	Q3	3	Q4	1	Q5	4
Q6	4	Q7	3	Q8	2	Q9	4	Q10	1
Q11	4	Q12	1	Q13	4	Q14	1	Q15	4
Q16	4	Q17	1	Q18	2	Q19	3	Q20	4
Q21	1	Q22	1	Q23	3	Q24	4	Q25	2
Q26	2	Q27	3	Q28	2	Q29	1	Q30	3

BOOKLET B

Q31	a) Group F : Reptiles Group G : Amphibians b) a. False b. True
Q32	Matter : Air , Sand Non-Matter : Light , Shadow
Q33	i. Steel ii. attracts
Q34	The light from the lamp is reflected by the ball and enters Sarah's eye.
Q35	a) the amount of digested food in the mouth and in part A is the same because no digestion takes place in part A. b) Part A is most likely the large intestine, because no digestion occurs there , so the amount of digested food does not increase. c) Chewing breaks the food into smaller pieces, increasing the total surface area, allowing enzymes to digest the food faster, so less time is needed.
Q36	a) bacteria need warmth to reproduce. b) because bacteria grow fastest at 30°c, so the rice will spoil quickly. c) use the same type and same amount of cooked rice for the experiment.
Q37	a) A , B and C b) to remove the eggs, larvae and pupae in the water and stop mosquitoes from breeding. c) Another animal that has the same 4-stage life cycle : Beetle (or Butterfly)
Q38	a) the strength of the strips. b) the length c) to process the emergency button to make the fire alarm sound. d) A. Material A is most suitable because it breaks with least number of weights.

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Q39	a) as the number of times the magnet was hit increased, the number of paper clips attracted decreased. b) she recorded the number of paper clips attracted by the magnet. c) Hitting a magnet causes it to lose its magnetism. d) Pile G : Iron Pile H : glass , paper , aluminium
Q40	a) the experiment shows that a solid takes up space, because the water level rises when the marble is placed in the cylinder. b) To use less water when flushing the toilet, Javed can place a large object into the water tank. This object takes up space, so the water level reaches level W faster, using less water for each flush.
Q41	 a) b) gain , faster c) the gaps allow the concreate to expand on a hot day without cracking.
Q42	a) type of material : changed amount of light from the torch : kept the same amount of light detected by lighr sensor : measured distance between the torch and the material : kept the same. b) Material Z. Material Z produced the highest reading (360 units), so it reflects the most light . A material that reflects the most light will make the reflective strips easiest for drivers to see at night.

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