PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)

2025 END-OF-YEAR EXAMINATION

PRIMARY FOUR

SCIENCE

(BOOKLET A)

NAME : _____( )

CLASS : P4 _____

DATE : 28 October 2025

Total Time for Booklets A and B: 1 hour 45 minutes

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).
5. This booklet consists of 18 printed pages.

	Marks Obtained /	Maximum Marks
BOOKLET A	/	60
BOOKLET B	/	40
TOTAL	/	100

PARENT'S SIGNATURE: _____

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) and shade your answer on the Optical Answer Sheet.

(60 marks)

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1 Which statement is true about most mammals?

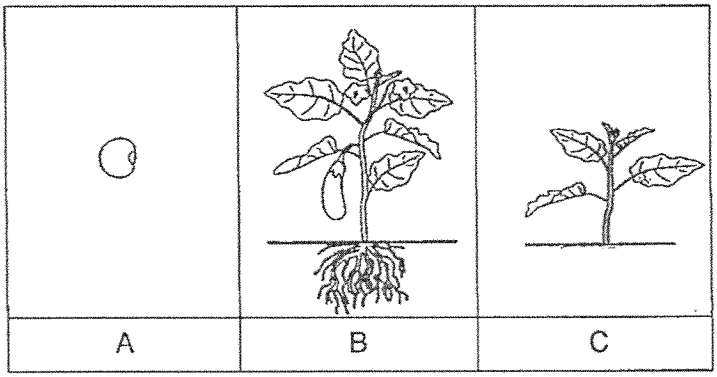
(1) They lay eggs.

(2) They have four legs.

(3) They are covered with hair.

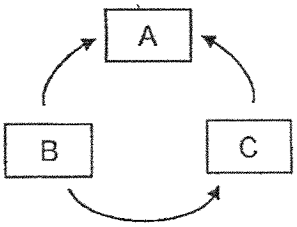
(4) They can live on land and in water.

2 A, B and C are stages in the life cycle of a plant.

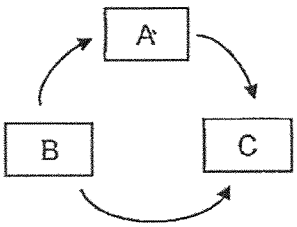


Which of the following shows the correct life cycle of the plant?

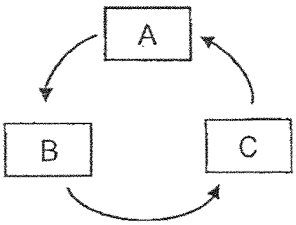
(1)



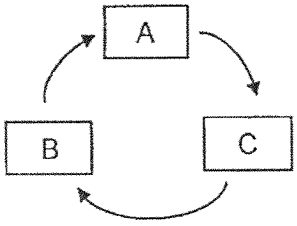
(2)



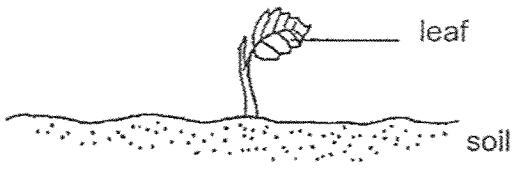
(3)



(4)



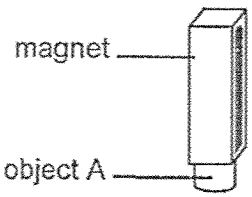
3 The diagram below shows a young plant.



The leaf helps the plant to _____.

(1) make food
(2) grow upright
(3) take in water
(4) absorb nutrients

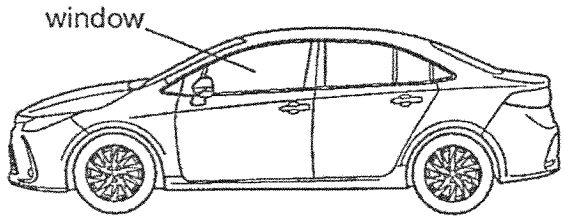
4 Object A was attracted to a magnet, as shown in the diagram.



Object A is made of _____.

(1) iron
(2) wood
(3) rubber
(4) plastic

5 The diagram shows a car.



Glass is used to make the window because glass can _____.

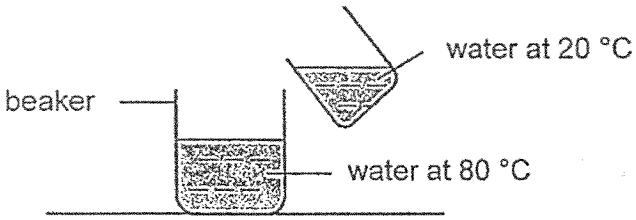
(1) sink

(2) bend

(3) absorb water

(4) allow light to pass through

6 Hot water at 80 °C is mixed with water at 20 °C.



What is a possible final temperature of water in the beaker?

(1) 20 °C

(2) 50 °C

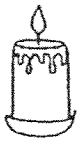
(3) 80 °C

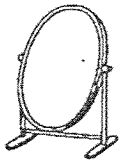
(4) 85 °C

7 Which one of the following is a source of light?

(1) 
the moon

(2) 
an apple

(3) 
a candle flame

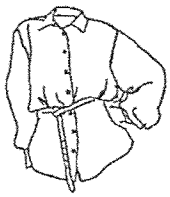
(4) 
a mirror

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

(1) They have mass.
(2) They cannot be seen.
(3) They have fixed shapes.
(4) They can be compressed.

9 Which one of the following objects is **not** made of waperproof material?

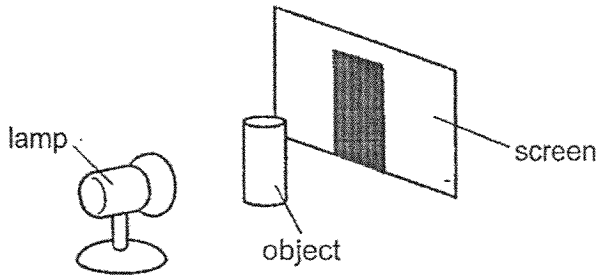
(1) 
metal spoon

(2) 
cotton shirt

(3) 
rubber boots

(4) 
plastic bottle

10 Study the diagram below.



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

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

11 Which part of the human digestive system contains the most amount of digested food when digestion is completed?

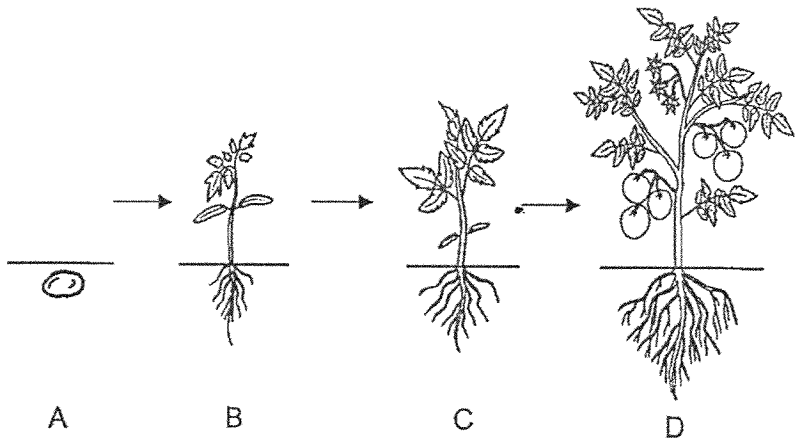
(1) mouth
(2) stomach
(3) small intestine
(4) large intestine

12 Andy thinks that cooling a magnet will affect the strength of the magnet.

What should he do before and after cooling the magnet to make a conclusion?

(1) Weigh the mass of the magnet.
(2) Observe the colour of the magnet.
(3) Measure the temperature of the magnet.
(4) Count the number of nails that the magnet can attract.

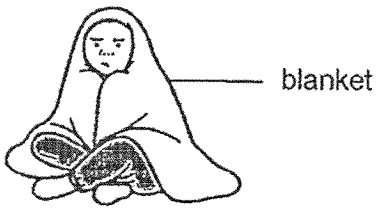
13 Study the growth of the plant below.



The plant is able to reproduce at stage _____.

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

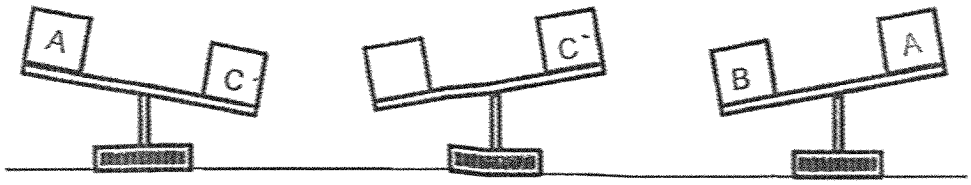
14 Alex felt cold in his room. He wrapped himself with a blanket to keep himself warm.



Which of the following is the heat source that helps to keep himself warm?

(1) the Sun
(2) his body
(3) his blanket
(4) surrounding air in the room

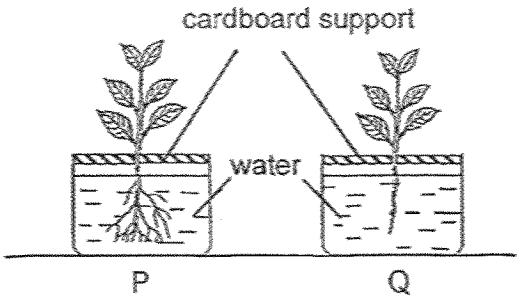
15 Three boxes, A, B and C, of the same size are weighed using a balance as shown.



Arrange the box starting with the greatest mass.

	Greatest mass ⟶		Smallest mass
(1)	A	C	B
(2)	B	C	A
(3)	A	B	C
(4)	B	A	C

16 In an experiment, two plants, P and Q, were each put into a beaker containing 100 ml of water.



The table below shows the amount of water left in the beaker after three days.

Plant	P	Q
Amount of water left (ml)	80	90

Which of the following statements below is a correct conclusion of the experiment?

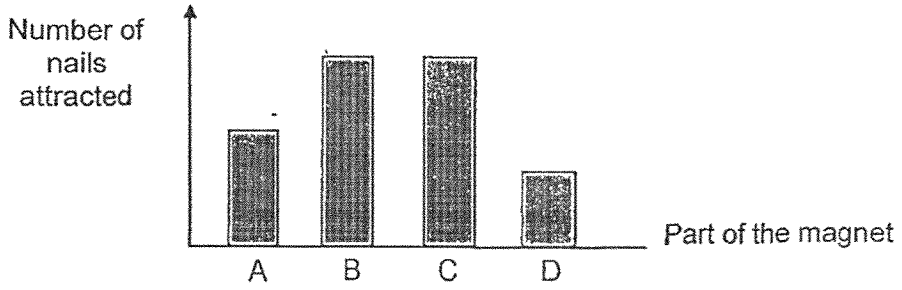
(1) Plant Q absorbed more water than Plant P.

(2) Plant Q absorbed the same amount of water as Plant P.

(3) Plant P absorbed more water than Plant Q through its roots.

(4) Plant P absorbed less water than Plant Q as it has more roots.

17 Colin used a bar magnet to attract some nails. He counted the number of nails attracted to different parts of the magnet, A, B, C and D, and plotted his results in the graph below.



Which parts are the poles of the magnet?

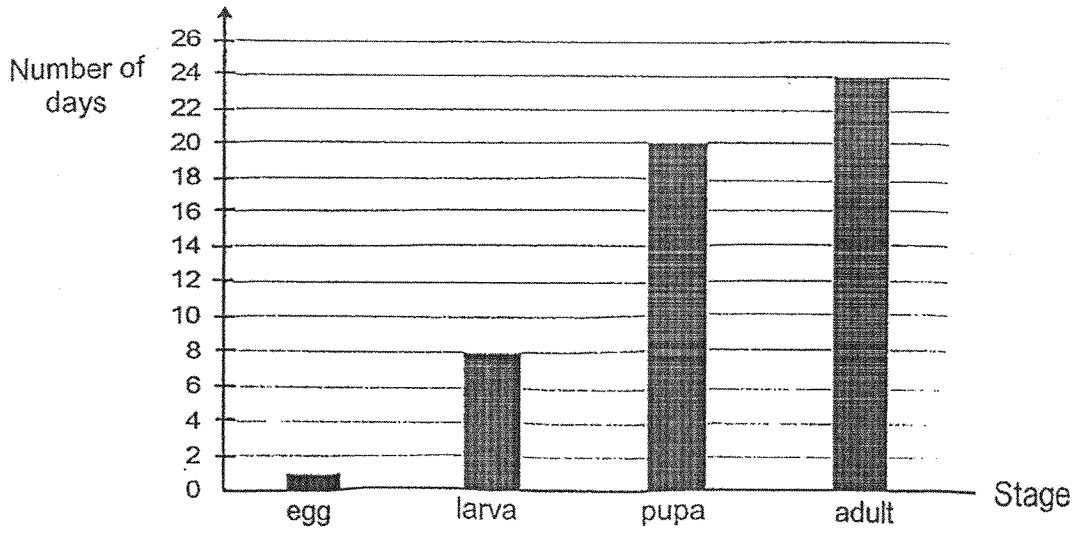
(1) A and C

(2) A and D

(3) B and C

(4) B and D

18 The graph shows the number of days of each stage in the life cycle of animal X.



Based on the graph, which of the following statements about animal X is correct?

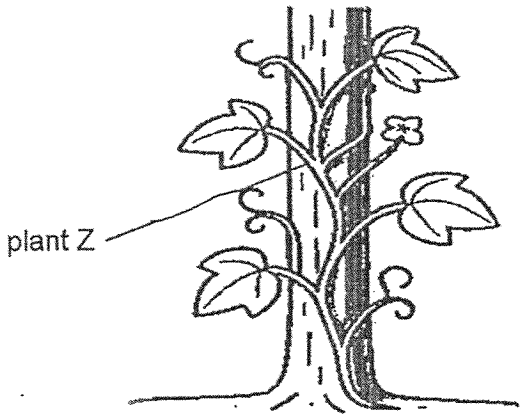
(1) Animal X lives for 24 days only.

(2) The larva of animal X does not look like the adult.

(3) Animal X takes 30 days to become an adult after it hatches.

(4) Animal X spends 28 days in the larval and pupal stage after it hatches.

19 The diagram shows plant Z growing on the trunk of a tree.



Which of the following statements are correct?

A Plant Z has a weak stem.

B Plant Z uses the trunk of the tree for support.

C Plant Z has a thick and woody stem.

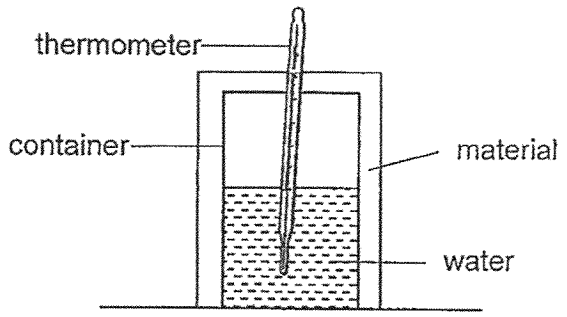
(1) A and B only

(2) A and C only

(3) B and C only

(4) A, B and C

20 Ravi wants to conduct an experiment to find out which material conducts heat the best. He started the experiment with the set-up as shown.



Which variables must be kept the same in order to conduct a fair test?

A Location of experiment

B Thickness of container

C Material wrapped around the container

D Temperature of water at first

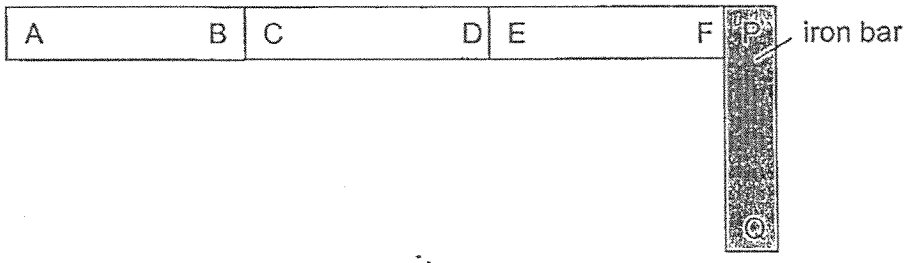
(1) B and C only

(2) C and D only

(3) A, B and D only

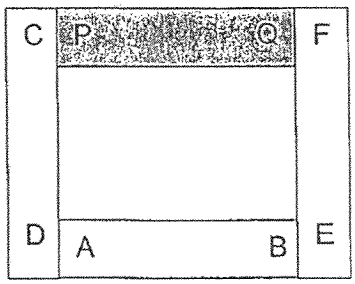
(4) A, B, C and D

21 Three magnets AB, CD, EF and an iron bar PQ are arranged as shown.

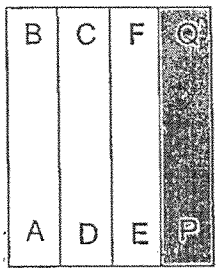


Which one of the following arrangements is **not** possible?

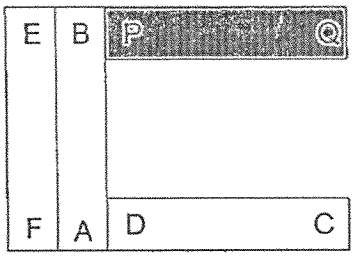
(1)



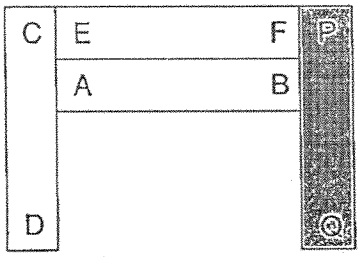
(2)



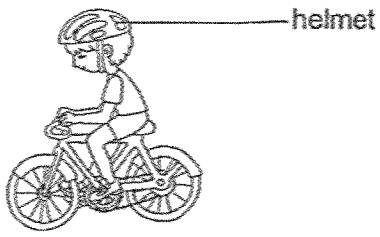
(3)



(4)



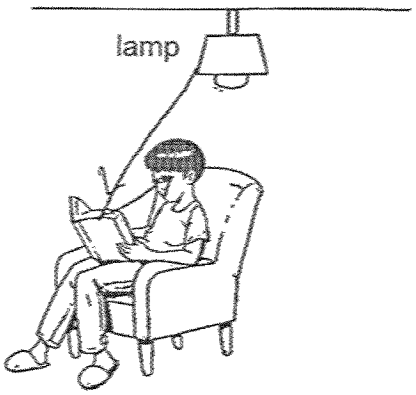
22 The diagram shows a boy wearing a helmet while riding a bicycle to prevent injury.



Which organ system in the human body performs a similar function as the helmet?

(1) skeletal system
(2) digestive system
(3) muscular system
(4) respiratory system

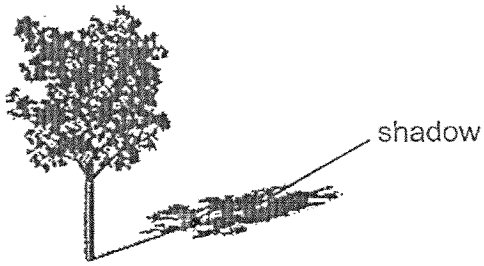
23 A boy reads a book in his room.



Which of the following explains why he can read the book?

(1) Light is reflected from the book to his eyes.
(2) Light is reflected from his eyes to the book.
(3) The book is reflected from his eyes to the light.
(4) The book is reflected from the light to his eyes.

24 The diagram shows the shadow of a tree.



At what time of the day would the shadow of the tree be the longest?

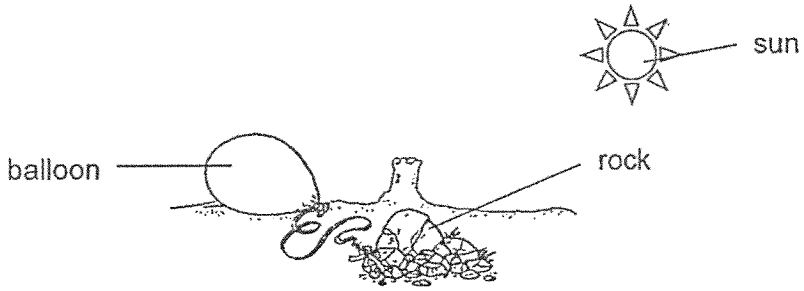
(1) 10 a.m.

(2) 12 noon

(3) 2 p.m.

(4) 6 p.m.

25 A balloon is tied to a rock on the beach and left there under the sun at noon.



Which of the following shows the change in mass and volume of the balloon after 30 minutes?

	mass	volume
(1)	remained the same	remained the same
(2)	increased	remained the same
(3)	remained the same	increased
(4)	increased	increased

26 Julie filled a beaker with two substances, P and Q, as shown in Diagram 1. She then placed the beaker on a wooden wedge as shown in Diagram 2.

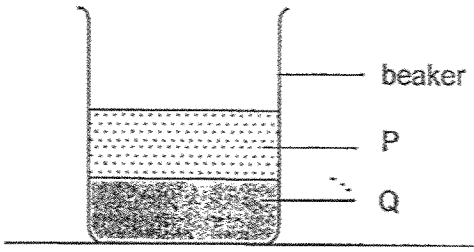


Diagram 1

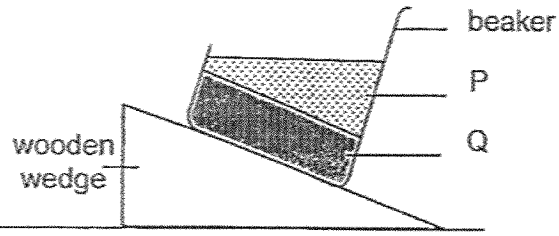
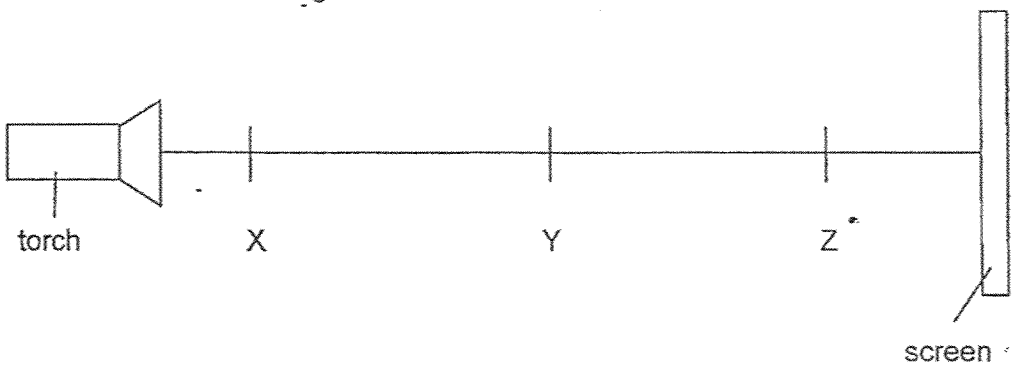


Diagram 2

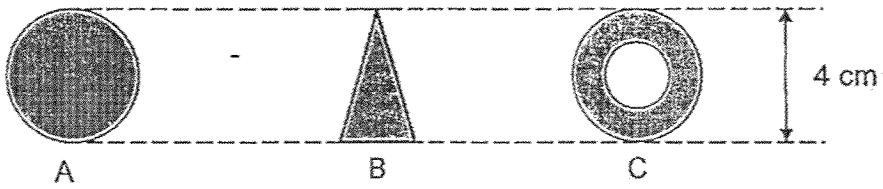
What states are substances P and Q in?

	P	Q
(1)	gas	solid
(2)	liquid	liquid
(3)	liquid	solid
(4)	solid	gas

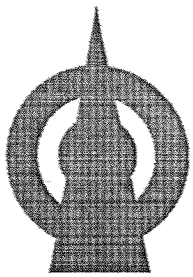
27 Three objects, A, B and C, were placed in a straight line at positions X, Y or Z, between a screen and a light source.



The size and shape of objects A, B and C are as shown.



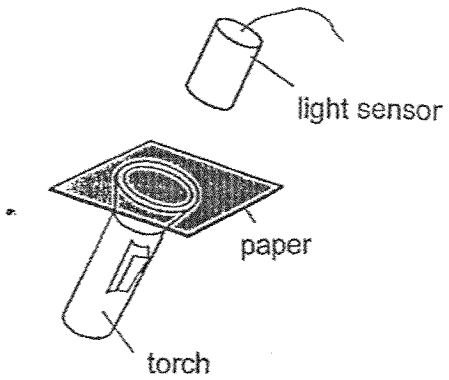
The shadow cast on the screen is shown below.



Which of the following correctly shows the position of objects A, B and C in order to produce the shadow above?

	Position X	Position Y	Position Z
(1)	B	A	C
(2)	B	C	A
(3)	A	B	C
(4)	A	C	B

28 Betty shone a lit torch on three different types of paper, A, B, and C, and measured the amount of light passing through each using a light sensor for 10 seconds.

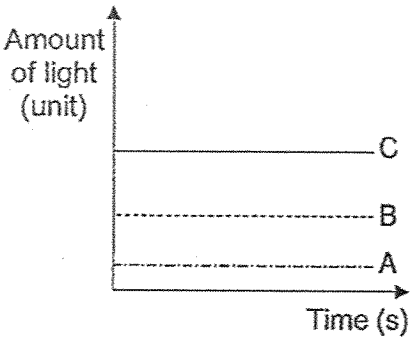


Her observations are shown in the table.

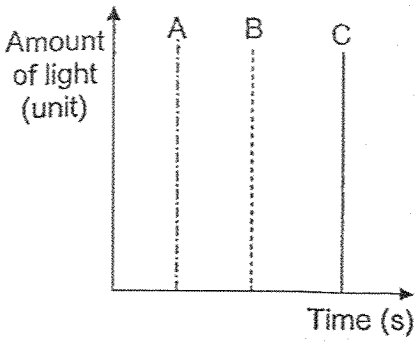
Paper	Amount of light passed through
A	Very little light
B	Some light
C	Most light

Which graph shows her results correctly?

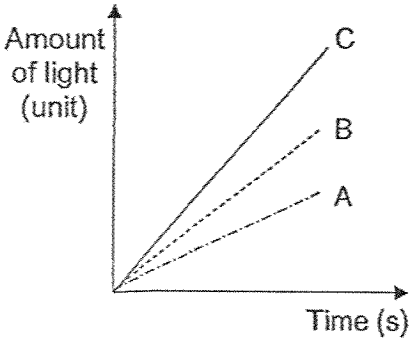
(1)



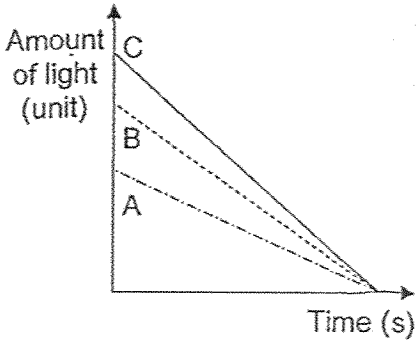
(2)



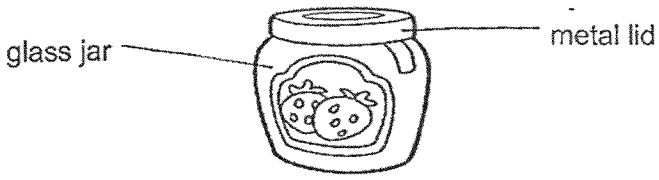
(3)



(4)



29 Diane tried to open a jam jar with a tight metal lid and she found it hard to do so.



What could Diane do to open the metal lid without breaking the jar?

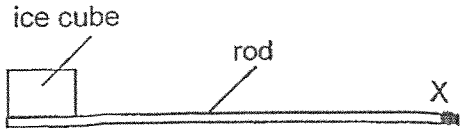
(1) Heat only the glass jar

(2) Heat only the metal lid

(3) Cool only the metal lid

(4) Heat the glass jar and metal lid

30 Adrian placed an ice cube at one end of a rod made of material S. He recorded the time taken for the temperature at point 'X' on the rod to drop by 5 °C.



He repeated the experiment using another rod of the same size and thickness but made of material T. His results are shown below.

Material	Time taken (s)
S	25
T	60

Adrian wanted to pack hot food and cold drinks in containers so that their temperatures would stay unchanged for the longest possible time. Based on the results, which material(s) would be most suitable for making the containers?

	Material for container keeping	
	hot food	cold drinks
(1)	S	S
(2)	S	T
(3)	T	S
(4)	T	T

END OF BOOKLET A

PAYA LEBAR METHODIST GIRLS' SCHOOL (PRIMARY)

2025 END-OF-YEAR EXAMINATION

PRIMARY FOUR

SCIENCE

(BOOKLET B)

NAME : _____( )

CLASS : P4 _____

DATE : 28 October 2025

Total Time for Booklets A and B: 1 hour 45 minutes

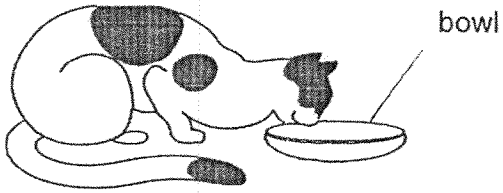
INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. This booklet consists of 12 printed pages.

	Marks Obtained / Maximum Marks
BOOKLET B	40

For questions **31** to **41**, 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 David saw a cat drinking water from a bowl.



Circle the correct answer. [2]

(a) The cat is a living thing because it (*needs* / *does not need*) water and (*can* / *cannot*) grow.

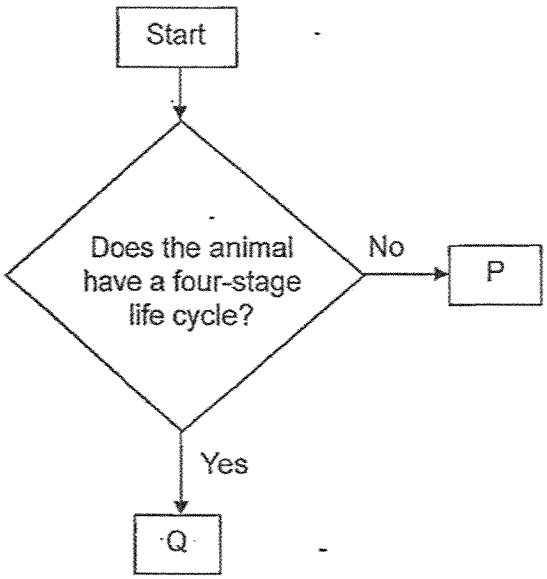
(b) The bowl is a non-living thing because it (*can* / *cannot*) move and (*can* / *cannot*) respond to changes around it.

32 Draw lines to match the three human systems to their functions. [3]

human system	**function**
circulatory system ●	● takes air into and out of the body
digestive system ●	● breaks down food into simpler substances
respiratory system ●	● gives the body shape and protects the organs
	● carries digested food, water and oxygen to all parts of the body

5

33 P and Q are two animals in the chart below.

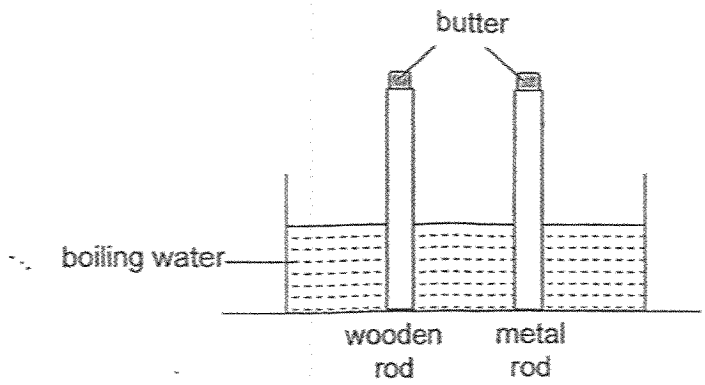


Read the following statements and tick (✓) the true/false box. [3]

	Statement	True	False
(a)	Both animals P and Q have a four-stage life cycle.		
(b)	Animal P can be a grasshopper.		
(c)	Animal Q can be a butterfly.		

3

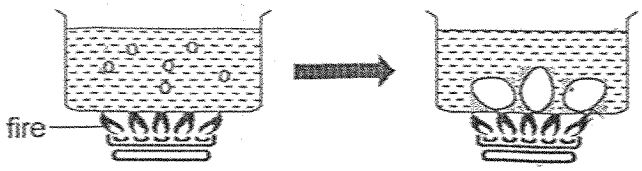
34 Jenny placed a wooden rod and a metal rod into a container of boiling water. Equal amounts of butter were put on both rods.



(a) What would she observe and why? [2]

The butter on the wooden rod melted _____ than the butter on the metal rod as wood is a _____ conductor of heat than metal.

Jenny wanted to cook some eggs. First, she prepared a pot of boiling water. When the water was boiling, she put the eggs in.



(b) Jenny observed that when she first put the eggs into the pot of boiling water, it stopped boiling for a short while. Explain her observation. [1]

_____

_____

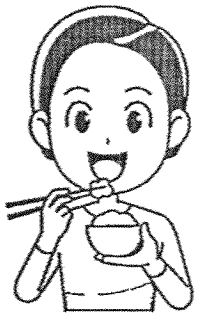
(c) Jenny continued to heat the water and eggs. After a short time, she observed that the water started to boil again. Explain her observation. [1]

_____

_____

4

35 Wendy ate a bowl of rice.



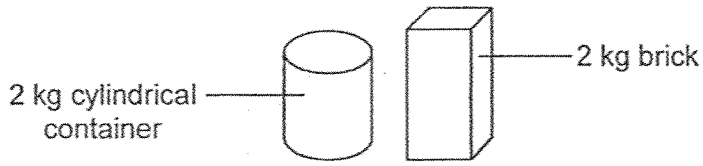
(a) State one function of saliva in the mouth. [1]

(b) State what happens to the undigested food in the large intestine before it is passed out of the body. [1]

(c) Wendy's grandma has lost most of her teeth.
Explain how having fewer teeth can affect the digestion of food. [2]

4

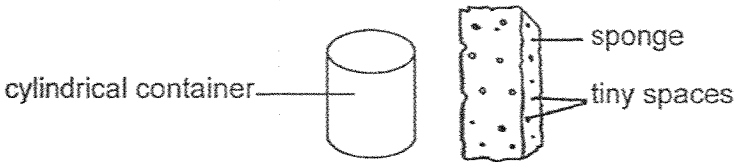
36 Daniel was given a brick and a cylindrical container as shown.



(a) Based on the information, state a similarity between the brick and the container. [1]

(b) Daniel was unable to place the brick into the cylindrical container. Give a reason why the brick could not fit into the container. [1]

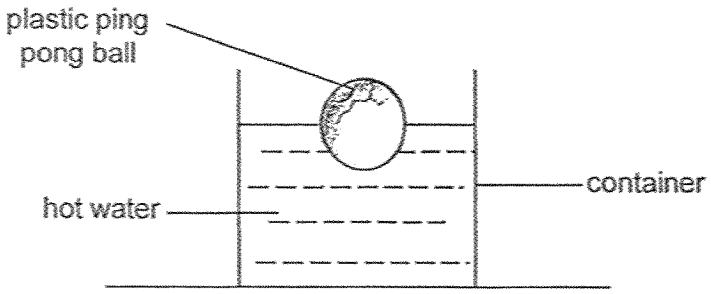
Daniel found a sponge, which is of the same size as the brick but is made from a different material. He was able to squeeze the whole sponge into the same cylindrical container.



(c) State what happened to the volume of the sponge when it was squeezed into the container? Give a reason for your answer. [2]

4

37 Joe dented a plastic ping pong ball. He was told that placing it in hot water would cause the ball to return to its original shape as shown.



(a) Explain how placing a dented ping pong ball in hot water helps it return to its original shape. [2]

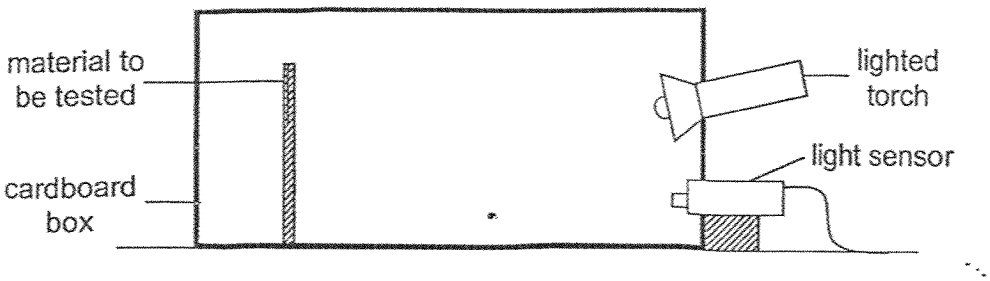
(b) Suggest a way to make the dented ping pong ball return to its original shape more quickly. [1]

(c) Joe placed another dented ping pong ball in hot water, but it did not return to its original shape. He observed the ball and found a crack on the ball.

Give a reason why the cracked ping pong ball could not return to its original shape. [1]

4

38 Kate carried out an experiment to find out how well materials P, Q, R and S reflect light.



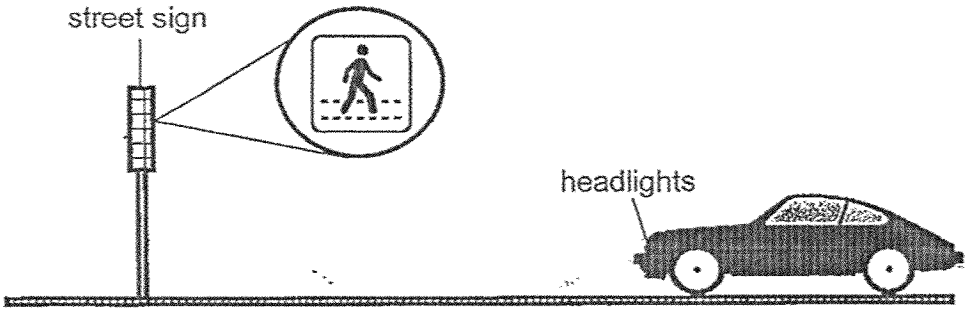
(a) Give a reason why Kate conducted her experiment in a cardboard box. [1]

Kate recorded her results in the table.

Material	Amount of light detected by the light sensor (units)
P	250
Q	450
R	85
S	10

(b) The light sensor gave a reading of 10 units for material S. What can you conclude about material S? [1]

Kate wanted to choose a material to make a street sign.

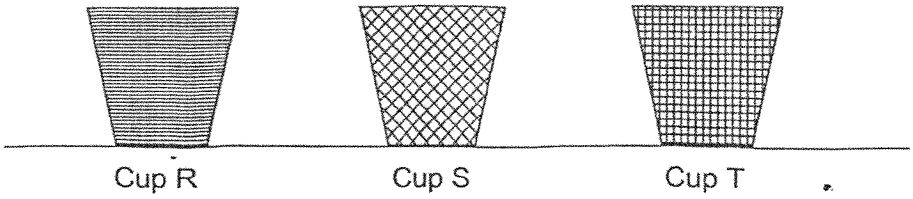


(c) Explain why the driver would be able to see the street sign at night. [1]

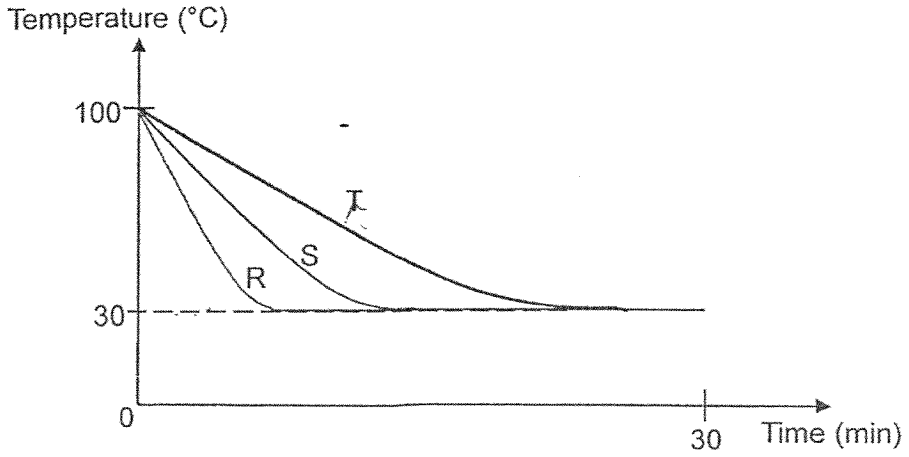
(d) Based on her results, which material (P, Q, R or S) is the most suitable to make the street sign so that it can be seen clearly at night? Give a reason for your answer. [1]

4

39 Kelly poured equal amounts of boiling water into three cups, R, S and T, made of different materials as shown in the diagram below. The containers were of the same size and thickness. She conducted her experiment in the Science room.



She measured the temperature of the water in each cup at regular intervals for 30 minutes and recorded her results in the graph below.



(a) State the temperature of the Science room. [1]

_____ °C

(b) Explain why the temperature of the water in the three cups decreased. [1]

_____

_____

(c) Kelly wants her iced tea to remain cold for the longest period of time.
Which cup, R, S or T, is most suitable? Explain your answer. [2]

_____

_____

4

40 Xinyi conducted an experiment using the set-up as shown in Diagram 1.

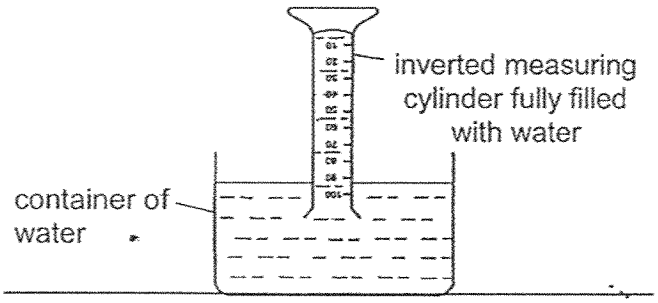


Diagram 1

Diagram 2 shows what happened when she blew air into the measuring cylinder using a straw.

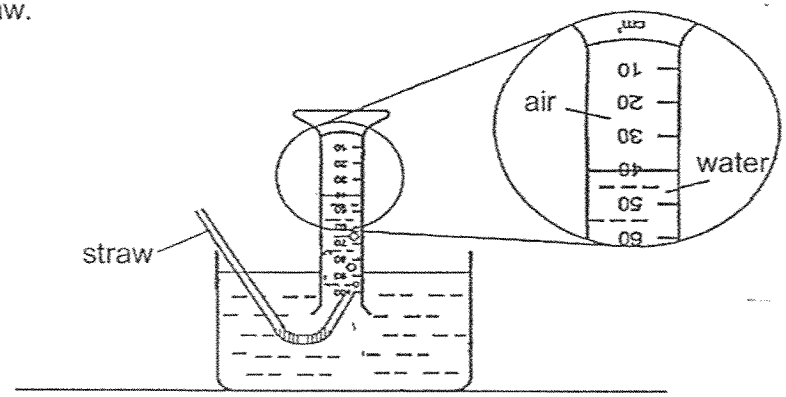


Diagram 2

(a) State the volume of air shown in Diagram 2. [1]

_____ cm^3

(b) Xinyi observed that the air rose up while water moved out of the measuring cylinder. State the common property of both air and water as shown by Xinyi's observation.[1]

_____

(c) Xinyi blew more air into the measuring cylinder. Besides observing that more water moved out of the measuring cylinder, state another observation about the water in the container. [1]

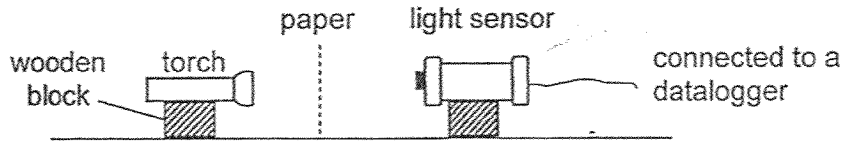
_____

(d) Explain your answer in (c). [1]

_____

4

41 Zaki conducted an experiment to find out how the number of sheets of paper affects the amount of light that passes through them as shown.



The table shows the results of his experiment.

Number of sheets of paper	Amount of light (unit)
1	900
2	810
3	729
4	656

(a) Based on the table, state the relationship between the number of sheets of paper and the amount of light that passes through them. [1]

(b) Based on the property of light, why did Zaki placed the light sensor and torch at the same height? [1]

(c) How would the amount of light measured change if Zaki repeated the experiment using thinner sheets of paper made of the same material? [1]

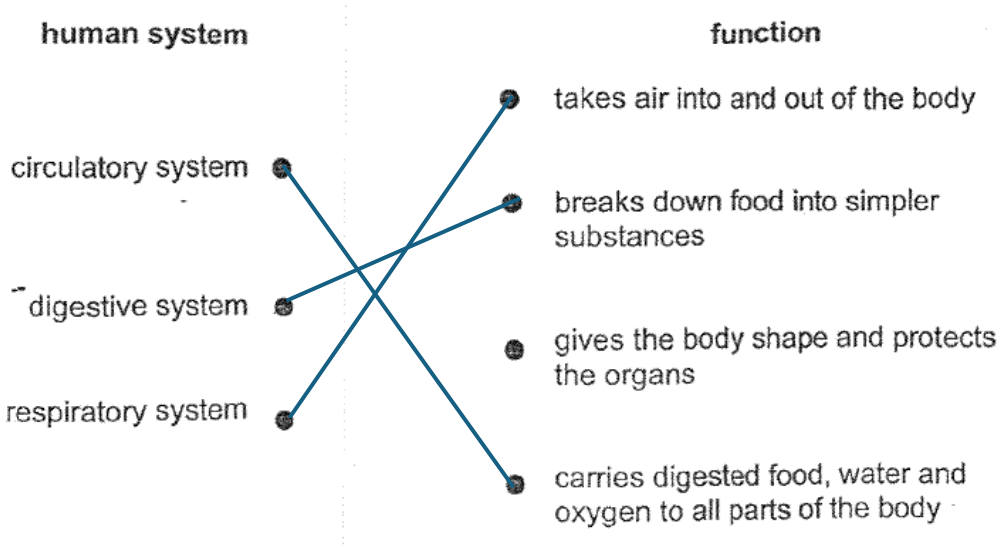
(d) Explain your answer in (c). [1]

END OF BOOKLET B

4

SCHOOL : PAYA LEBAR MGS PRIMARY SCHOOL
LEVEL : PRIMARY 4
SUBJECT : SCIENCE
TERM : 2025 END OF YEAR EXAMINATION

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

Q31	a) needs / can b) cannot / cannot
Q32	
Q33	a) False b) True c) True
Q34	a) slower / poorer b) The boiling water lost heat to the eggs, thus the water stopped boiling for a while. c) After a while, the water gained heat from the fire and boiled again.
Q35	a) To help digest the food in the mouth. b) Water is absorbed from the undigested food in the large intestine before c) Teeth help chew food into smaller pieces, so when you have less teeth

	you will take a longer time to chew finish your food, thus having fewer teeth will slow your digestion.
Q36	a) Both have the same mass. b) The brick had a larger volume than the cylindrical container. c) When the sponge was squeezed the volume of it decreased. Inside the tiny spaces in the sponge there is air, so when the sponge is squeezed the air is squeezed out and the sponge's volume will decrease and be small enough to fit the cylindrical container as air occupies space.
Q37	a) Air in the ping pong ball gains heat from the hot water and expands. b) Put the ping pong ball in water with a higher temperature. c) Since there was a crack on the ping pong ball, instead of pushing the dent back to its original position, the air escaped through the crack once expanded, thus the cracked ping pong ball could not return to its original shape.
Q38	a) To block all the light from outside. b) Material S is the least reflective. c) Light from the car's head light are reflected from the street sign to the driver's eyes. d) Material Q reflected the most light from the torch into the light sensor, which means it reflects light the best, and the street sign needs to reflect light very well to be seen clearly, thus material Q is the most suitable to make a street sign so that it can be seen clearly at night.
Q39	a) 30°C b) The temperature of the water in three cups decreased as the water lost heat to the surrounding air in the science room. c) Cup T. Cup T loss heat the slowest so it is the poorest conductor of heat and poor conductor of heat do not let heat pass through them easily, thus Cup T is the most suitable to keep Kelly's iced tea cool for the longest period of time.
Q40	a) 40 cm^3 b) Both air and water occupy space. c) The water in the container would increase. d) Water occupies space.
Q41	a) As the number of sheets of paper increase, the amount of light sensed by the light sensor decreases. b) Light travels in straight lines so if the light sensor and the torch were at different heights, the light sensor would not have sensed the accurate amount of light. c) The amount of light measured would increase. d) By using thinner sheets of paper the paper would allow more light to pass through, thus the amount of light measured would increase.