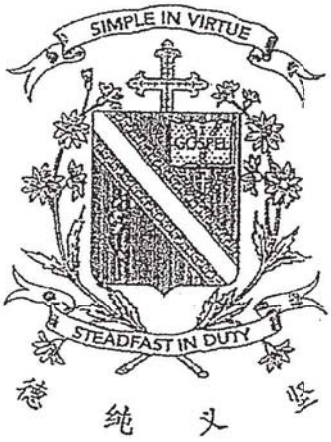
Name: _____ ( )

Class: Primary 4 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL



Primary 4
Termly Assessment 1
SCIENCE

BOOKLET A

16 July 2020

Total Time for Booklets A and B: 1 hour

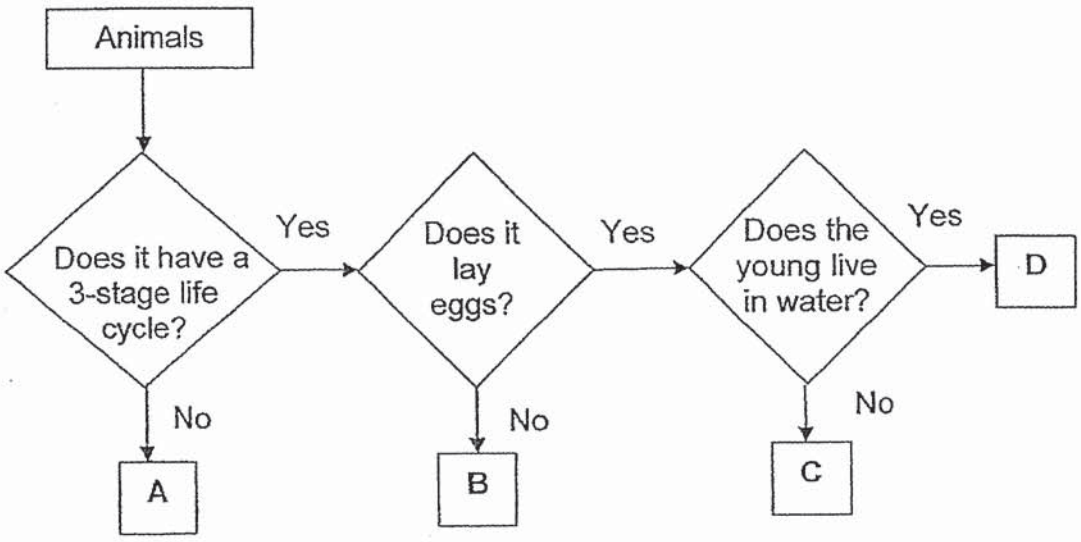
18 questions
36 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

This booklet consists of 18 printed pages.

Section A (18 x 2 marks = 36 marks)
For each question from 1 to 18, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.**

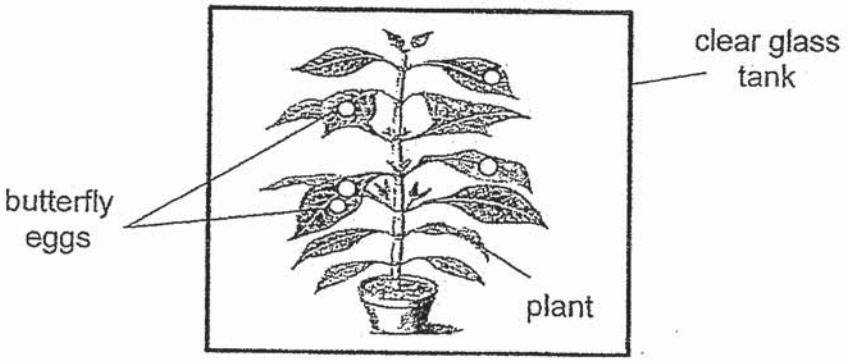
1. Study the flow chart below.



Based on the flow chart above, which letter A, B, C or D best represents a cockroach?

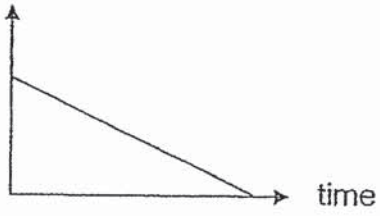
(1) A
(2) B
(3) C
(4) D

2. Viviene placed a plant in a clear glass tank in her garden and watered it daily. She placed some butterfly eggs on the leaves of the plant.

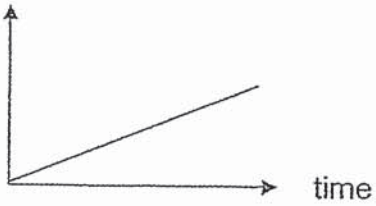


Which one of the following graphs best represents changes in the mass of the plant over a few weeks?

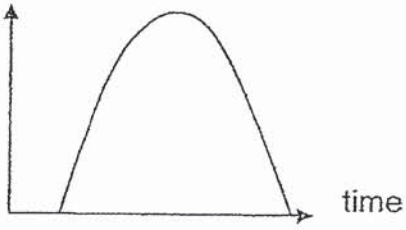
(1)



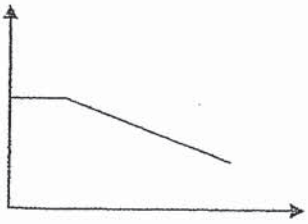
(2)



(3)



(4)

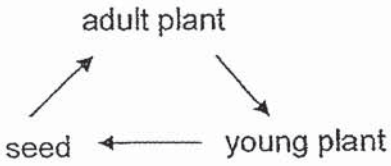


3. The diagram below shows plant B.

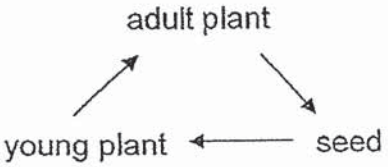
plant B

Which one of the following correctly shows the stages of the life cycle of plant B?

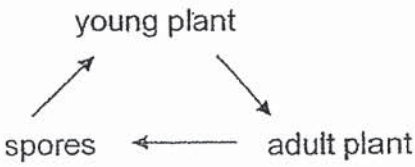
(1)



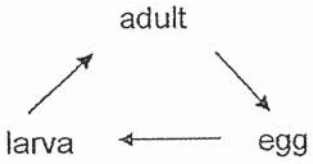
(2)



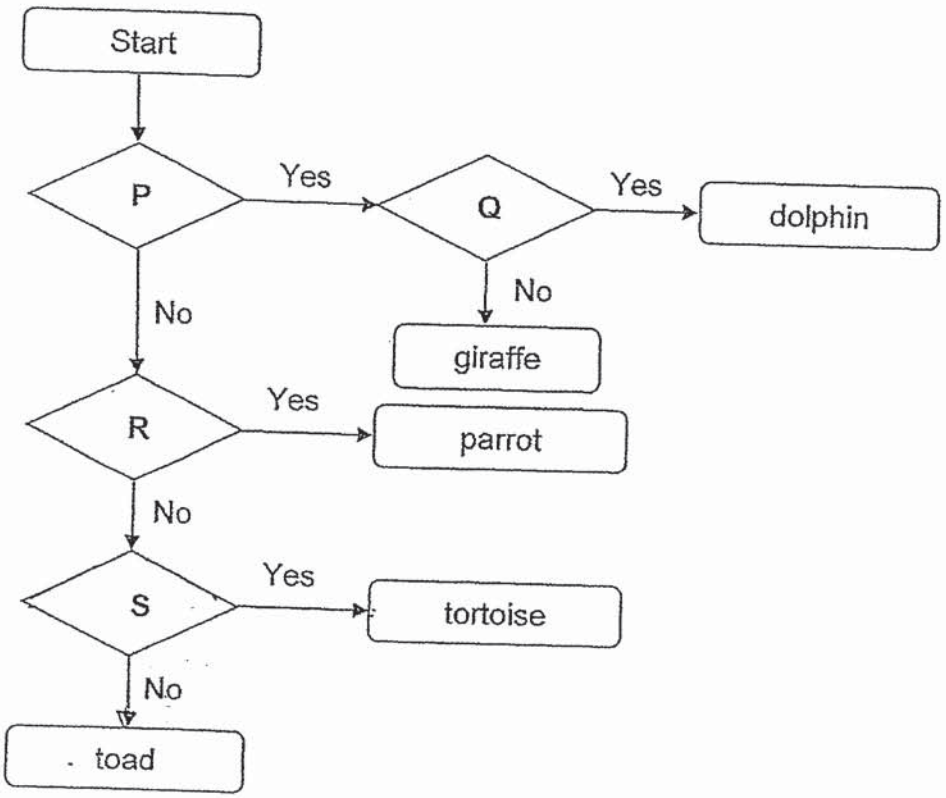
(3)



(4)



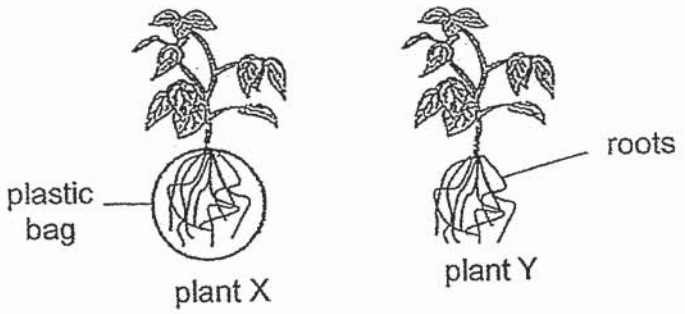
4. Study the flow chart below.



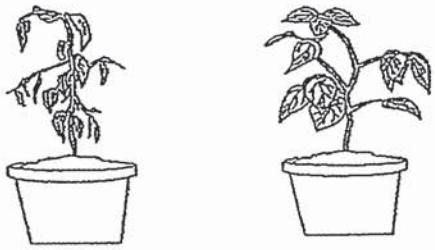
Based on the flow chart, which one of the following best represents P, Q, R and S?

	P	Q	R	S
(1)	Does it lay eggs?	Does it live on land?	Can it swim?	Does it have a shell?
(2)	Does it have hair as an outer covering?	Can it swim?	Does it lay eggs?	Does it have moist skin?
(3)	Does it give birth to its young alive?	Does it live in water?	Can it fly?	Does it have scales?
(4)	Is it a mammal?	Does it have scales?	Does it have feathers as an outer covering?	Does it lay eggs?

5. Simon had two similar plants X and Y. He wrapped the roots of plant X in a plastic bag as shown below.



He repotted both plants into similar pots and gave them the same amount of water daily. The diagram below shows how the plants looked like after two weeks.



What can Simon conclude from the experiment?

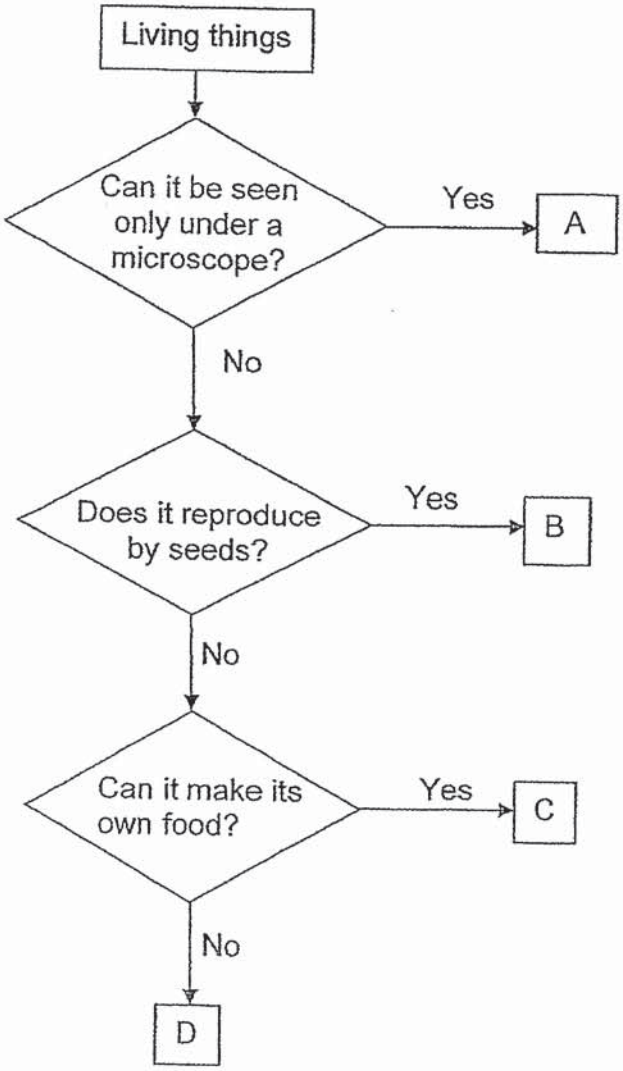
(1) Leaves help the plants to make food.

(2) Plants need air, food and water to stay alive.

(3) The stem supports the plant and allows it to stay upright.

(4) Roots absorb water for the plant and keep the plant alive.

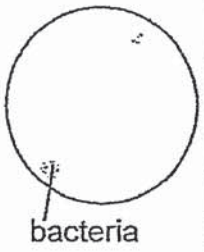
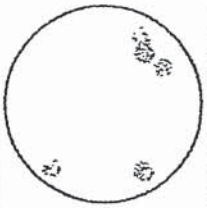
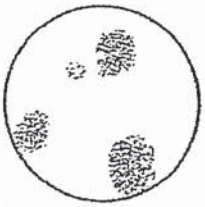
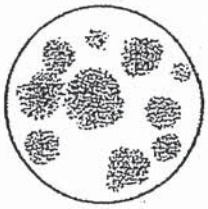
6. Study the flow chart below.



Based on the flow chart, which of the following best represents living things A, B, C and D?

	A	B	C	D
(1)	mushroom	rose plant	mushroom	staghorn fern
(2)	bat	bean plant	bird's nest fern	mushroom
(3)	bacteria	bird's nest fern	bean plant	bacteria
(4)	yeast	chilli plant	staghorn fern	dog

7. Sindy put some bacteria in a dish. She placed the dish on a table in a classroom. She recorded her observations in the table below.

Time (h)	1	2	3	4
Amount of bacteria				

What could Sindy conclude from her observations?

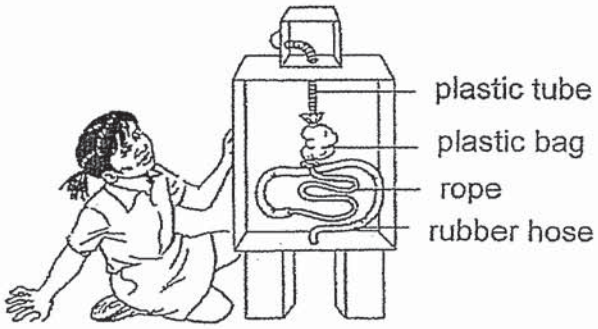
(1) The bacteria can die.

(2) The bacteria is harmful to us.

(3) The amount of bacteria increased over time.

(4) The bacteria causes the food we eat to spoil.

8. Bianca made a model of the human digestive system as shown below.



She wrote down some notes about her model.

Which one of the following is correct?

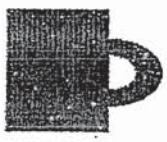
	Parts of the model	Organ represented	Function
(1)	plastic tube	gullet	digests part of the food
(2)	plastic bag	stomach	digests all the food
(3)	rope	small intestine	absorbs digested food into the bloodstream
(4)	rubber hose	large intestine	absorbs undigested food

9. The diagram below shows a ceramic mug.

When a torch shone on the mug, which one of the following shadows **cannot** be cast by the mug?

(1)

(2)



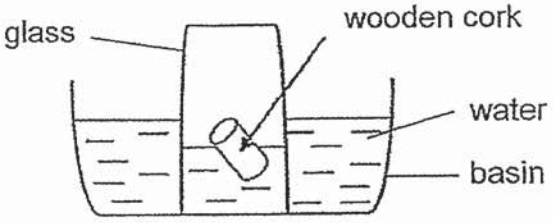
(3)

(4)

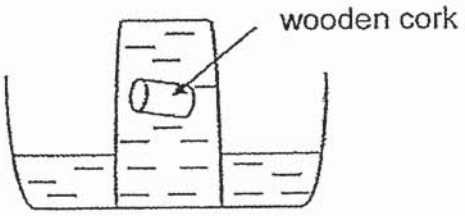
10. Angeline placed a wooden cork in a basin of water. An empty glass is inverted and pushed down completely over the wooden cork into the basin of water.

Which one of the following shows the correct position of the wooden cork and water?

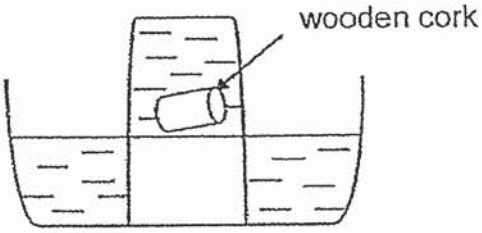
(1)



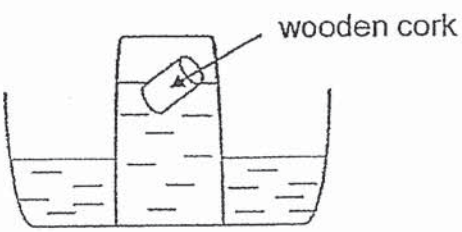
(2)



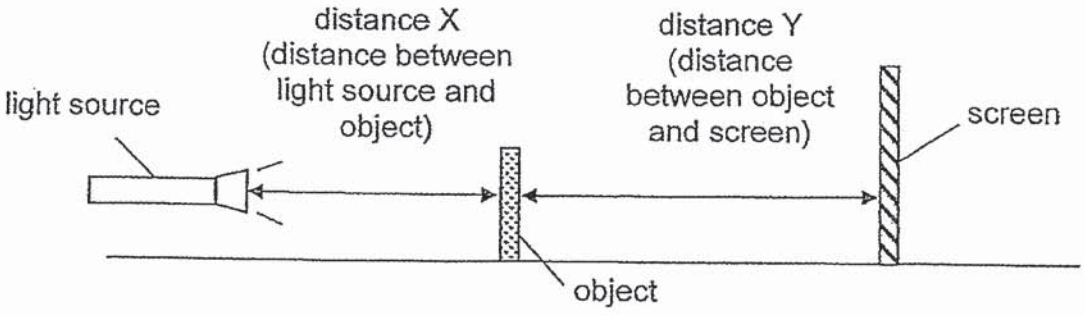
(3)



(4)



11. Jun Wei wanted to find out how the distance between the light source and the object affected the size of the shadow.



Set-up	Distance X	Distance Y	Shape of object
A	8	5	circular
B	5	10	circular
C	5	5	rectangular
D	10	5	rectangular
E	10	10	rectangular

Which two set-ups should he use for his experiment?

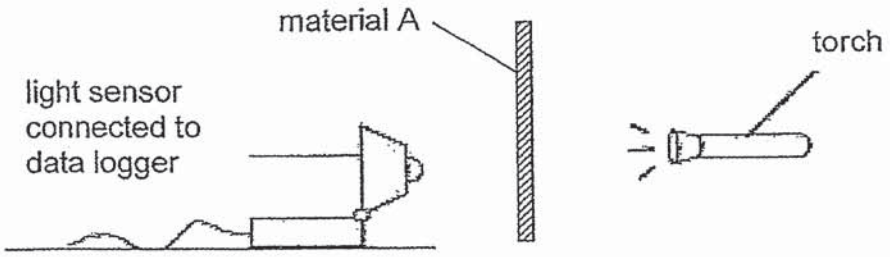
(1) A and C

(2) B and E

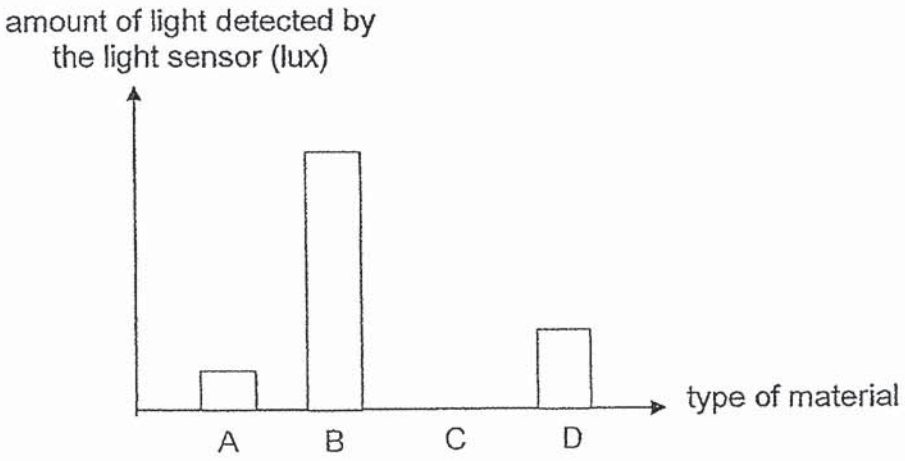
(3) C and D

(4) D and E

12. Mrs Lim conducted an experiment in a dark room. She recorded the amount of light passing through material A using a light sensor connected to a data logger.



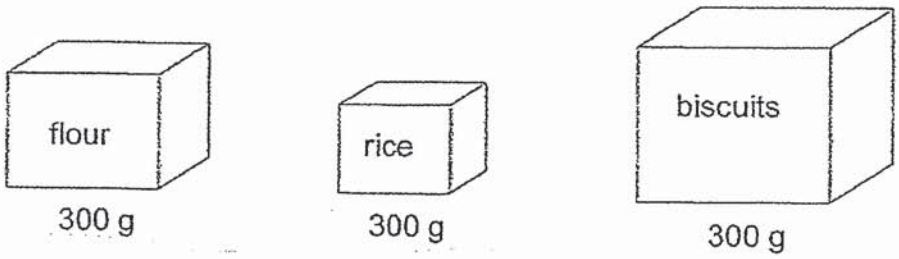
She repeated her experiment with materials B, C and D. She recorded her observations in the graph below.



Which of the following materials is the most suitable for making curtains which allows a lot of sunlight to shine into the house?

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

13. The boxes below are completely filled with different substances.



Which one of the following statements is **not** true?

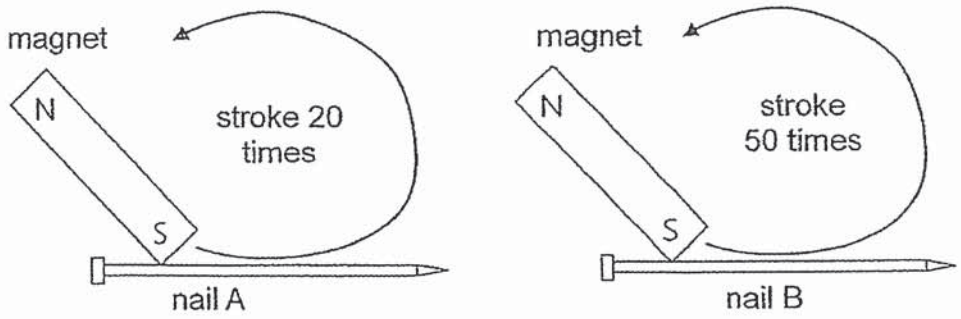
(1) The box of flour has a larger mass than the box of rice.

(2) The box of biscuits occupies the greatest amount of space.

(3) The box of flour and the box of biscuits have the same mass.

(4) The box of flour and the box of rice occupy different amount of space.

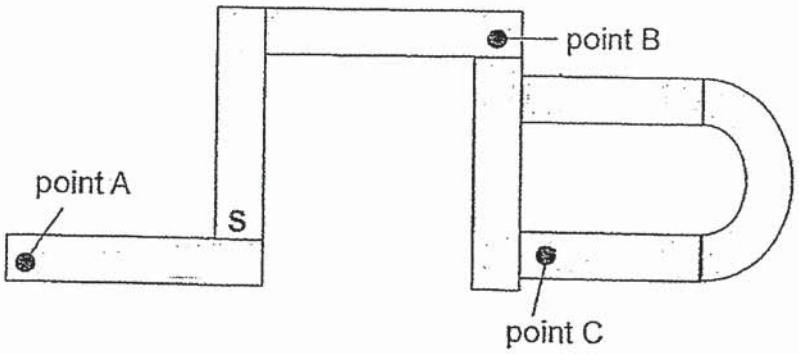
14. Tasha had two similar iron nails A and B. She used the same bar magnet to stroke the nails as shown in the diagram below.



She placed the nails 5 cm away from some pins and recorded the number of pins attracted. Which of the following is the most likely results recorded by Tasha?

	Nail A	Nail B
(1)	3 pins	0 pins
(2)	5 pins	9 pins
(3)	6 pins	2 pins
(4)	3 pins	3 pins

15. Study the arrangement of the magnets below. The south pole of one of the magnets is given in the diagram.



Which one of the following shows the correct poles at points A, B and C?

	Point A	Point B	Point C
(1)	north pole	north pole	south pole
(2)	north pole	south pole	north pole
(3)	south pole	south pole	north pole
(4)	south pole	north pole	south pole

16. Tarun put a 40 cm^3 ball of plasticine into a container of water as shown in diagram A. The total volume of water and plasticine is 200 cm^3.

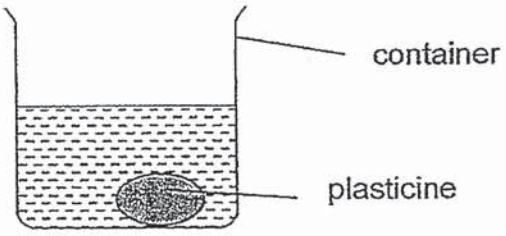


diagram A

Tarun then took the ball of plasticine out and cut it into two pieces. He put the two pieces of plasticine back into the same container of water as shown in diagram B.

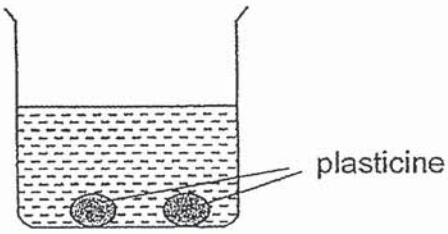
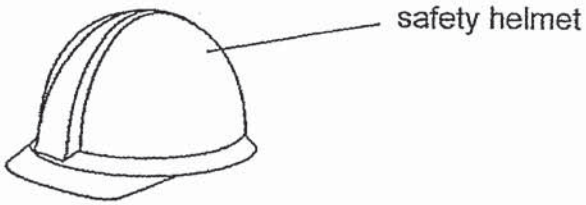


diagram B

What would be the total volume of water and plasticine in the container?

(1) 160 cm^3
(2) 200 cm^3
(3) 220 cm^3
(4) 240 cm^3

17. Mr Wong wants to choose a material to make safety helmets for construction workers.



Which of the properties of the material should he consider when making safety helmets?

A The material is strong.

B The material is flexible.

C The material is waterproof.

D The material allows light to pass through.

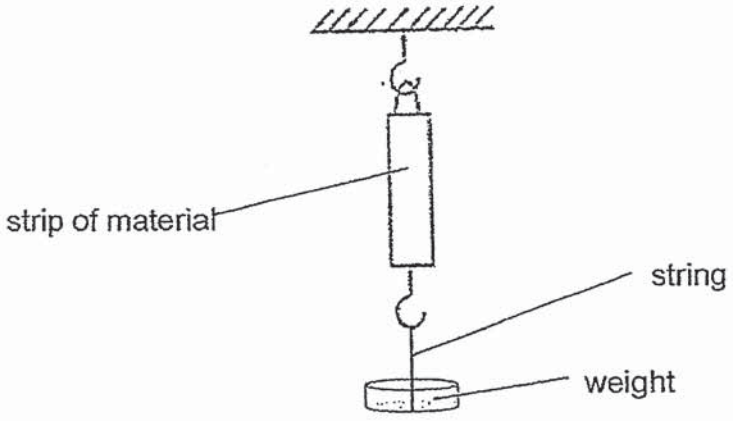
(1) A and C only

(2) B and D only

(3) C and D only

(4) A, B and D only

18. Harris conducted an experiment to compare the strengths of different materials P, Q, R and S. He cut them into similar strips and hung weights from the ends of the strips. He recorded his observations in the table below.



Material	Mass of weights hung on each material when it broke (g)
P	380
Q	150
R	360
S	200

Based on the results of the experiment, which of the following shows the arrangement of the four materials P, Q, R and S in order of increasing strength.

	least strength ⟶ greatest strength			
(1)	P	R	S	Q
(2)	R	P	Q	S
(3)	S	Q	P	R
(4)	Q	S	R	P

END OF BOOKLET A

Name : _____ ( )

Class : Primary 4 _____

CHIJ ST NICHOLAS GIRLS' SCHOOL

Primary 4
Termly Assessment 1
SCIENCE

BOOKLET B

16 July 2020

Booklet A	36
Booklet B	14
Total	50

Total Time for Booklets A and B: 1 hour

5 questions
14 marks

Do not open this booklet until you are told to do so.
Follow all instructions carefully.
Answer all questions.

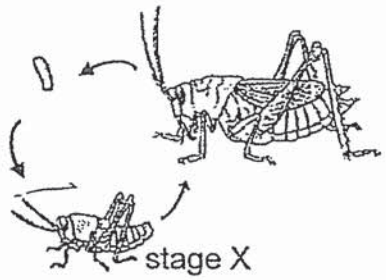
This paper consists of 6 printed pages.

_____

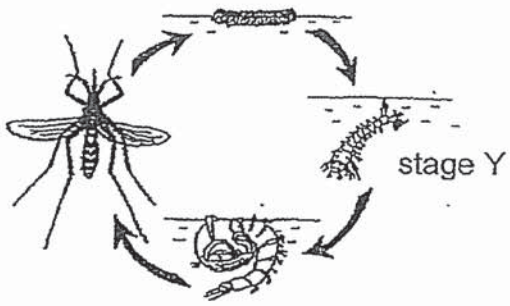
Parent's Signature/Date

Section B (14 marks)
For questions 19 to 23, write your answers in this booklet.
The number of marks available is shown in the brackets at the end of each question or part question.

19. The diagram below shows the life cycle of a grasshopper and a mosquito.



life cycle of grasshopper



life cycle of mosquito

(a) Name the two stages X and Y. [1]

Stage X: _____

Stage Y: _____

(b) Observe the two life cycles above. State two differences between the two life cycles. (Do not compare the size, shape or colour.) [2]

(i) _____

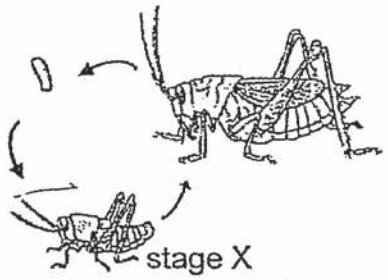
_____

(ii) _____

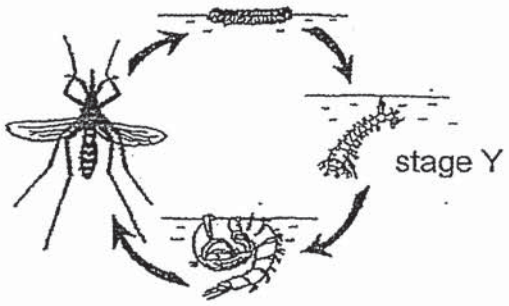
_____

Section B (14 marks)
For questions 19 to 23, write your answers in this booklet.
The number of marks available is shown in the brackets at the end of each question or part question.

19. The diagram below shows the life cycle of a grasshopper and a mosquito.



life cycle of grasshopper



life cycle of mosquito

(a) Name the two stages X and Y. [1]

Stage X: _____

Stage Y: _____

(b) Observe the two life cycles above. State two differences between the two life cycles. (Do not compare the size, shape or colour.) [2]

(i) _____

_____

(ii) _____

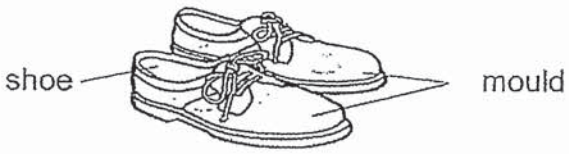
_____

20. Walter placed three similar pieces of bread X, Y and Z on a kitchen table. Different amounts of water were added to the bread. He recorded his observations in the table shown below.

Bread	Amount of water (ml)	Number of days before the bread turned mouldy
X	1	9
Y	5	5
Z	10	3

(a) Based on the results above, what is the relationship between the amount of water and the growth of bread mould? [1]

Walter came home on a rainy day and placed his wet shoes in the cupboard. After a few weeks, he found some mould growing on his shoes.

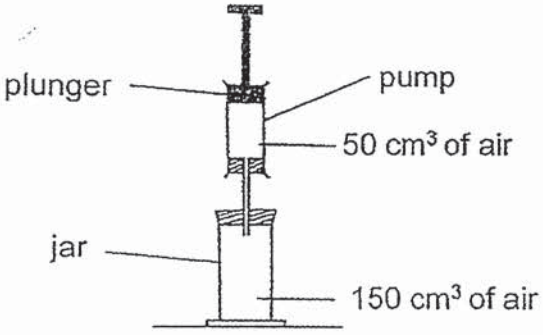


(b) What should Walter do to prevent mould from growing on his shoes? Explain your answer. [1]

21. Hannah is trying to blow air into a float.

(a) What will happen to the volume of the float as Hannah blows air into it? [1]

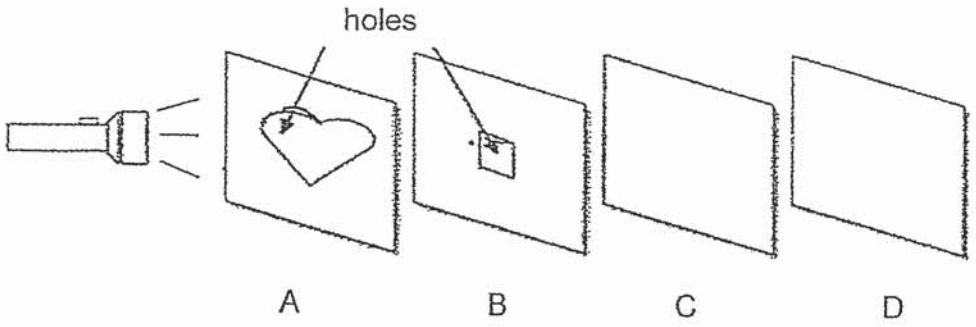
The diagram below shows a jar containing 150 cm^3 of air and a pump containing 50 cm^3 of air.



(b) When the plunger is pushed all the way into the pump, all the air from the pump goes into the jar.
What is the volume of air in the jar now? [1]

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

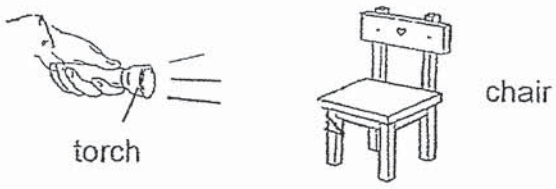
22. Yati carried out an experiment in a dark room. She arranged four sheets A, B, C and D in a straight line. Each sheet is made of a different material. There is a heart-shaped hole on sheet A and a square hole on sheet B.



(a) When Yati switched on the torch, she could see a heart-shaped patch of light on sheet D only. Tick (✓) in the table below to indicate the properties of sheets A, B, C and D. [2]

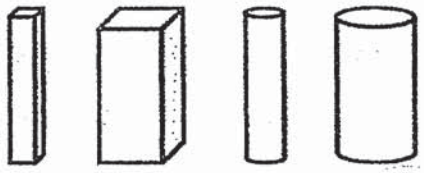
Sheets	Allow light to pass through	Do not allow light to pass through
A		
B		
C		
D		

Yati shone her torch in the dark room and saw a chair in the room.



(b) Explain how she could see the chair in the dark room. [1]

23. Jing Xuan used four magnets of different sizes P, Q, R and S. He carried out an experiment to find out which magnet has the greatest magnetic strength. He then recorded the results in the table below.



Magnet	Distance between magnet and iron nails (cm)	Number of iron nails attracted to the magnet
P	9	40
Q	3	40
R	13	40
S	7	40

(a) Based on the results above, which magnet P, Q, R or S has the greatest magnetic strength? Give a reason for your answer. [2]

_____

_____

(b) From this experiment, what can Jing Xuan conclude about the size of the magnet and its magnetic strength? [1]

_____

_____

_____

END OF BOOKLET B

ANSWER KEY

YEAR : 2020
LEVEL : PRIMARY 4
SCHOOL ; CHIJ ST NICHOLAS GIRLS' SCHOOL
SUBJECT: SCIENCE
TERM: TERMLY ASSESSMENT 1

BOOKLET A

Q1	3	Q2	4	Q3	2	Q4	3	Q5	4
Q6	4	Q7	3	Q8	3	Q9	1	Q10	1
Q11	3	Q12	2	Q13	1	Q14	2	Q15	4
Q16	2	Q17	1	Q18	4				

BOOKLET B

Q19.
a) Stage X : nymph
Stage Y : Larva
bi) The life cycle of a grasshopper has three stages in its life cycle while the life cycle of a mosquito has 4 stages.
bii) The life cycle of a grasshopper young looks like the adult while the life cycle of a mosquito young does not look like the adult.
Q20.
a) The greater the amount of water added , the faster the bread mould would grow.
b) Walter should dry his shoes with a fan before placing them in the cardboard to remove the moisture on the shoes.

Q21.
a) The volume of the float will increase.
b) 150cm3
c) Air can be compressed as it does not have a definite volume.

Q22.

a)

Sheets	Allow light to pass through	Do not allow light to pass through
A		✔
B	✔	
C	✔	
D		✔

b) The light from the torch shines on the chair . The light is reflected off the chair into Yati's eyes.

Q23.

a) Magnet R. It has the greatest magnetic strength as it can attract the same number of iron nails as the rest from a further distance.

b) He can conclude that the size of the magnet does not affects it magnetic strength.