

Name: \_\_\_\_\_ ( )

Class: Primary 3 \_\_\_\_\_

## CHIJ ST NICHOLAS GIRLS' SCHOOL



### Primary 3 Semestral Assessment 2 SCIENCE

#### BOOKLET A

27 October 2017

Total Time for Booklets A and B: 1 hour 30 minutes

24 questions  
48 marks

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

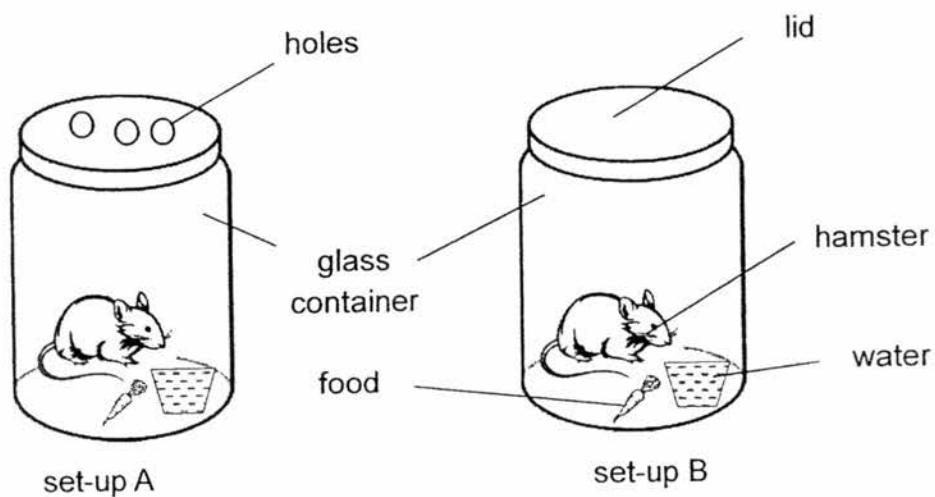
This paper consists of 18 printed pages.

**Section A (24 x 2 marks = 48 marks)**

For each question from 1 to 24, 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.**

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1. Mary conducted an experiment using set-ups A and B.



Mary is trying to find out if the hamster needs \_\_\_\_\_ to survive.

- (1) air
- (2) food
- (3) water
- (4) sunlight

2. Which of the following organ systems work together to help us bend our fingers?

- A Skeletal system
- B Digestive system
- C Muscular system
- D Respiratory system

- (1) A and C only
- (2) A and D only
- (3) B and C only
- (4) B and D only

3. What are the differences between a bird and a fish?

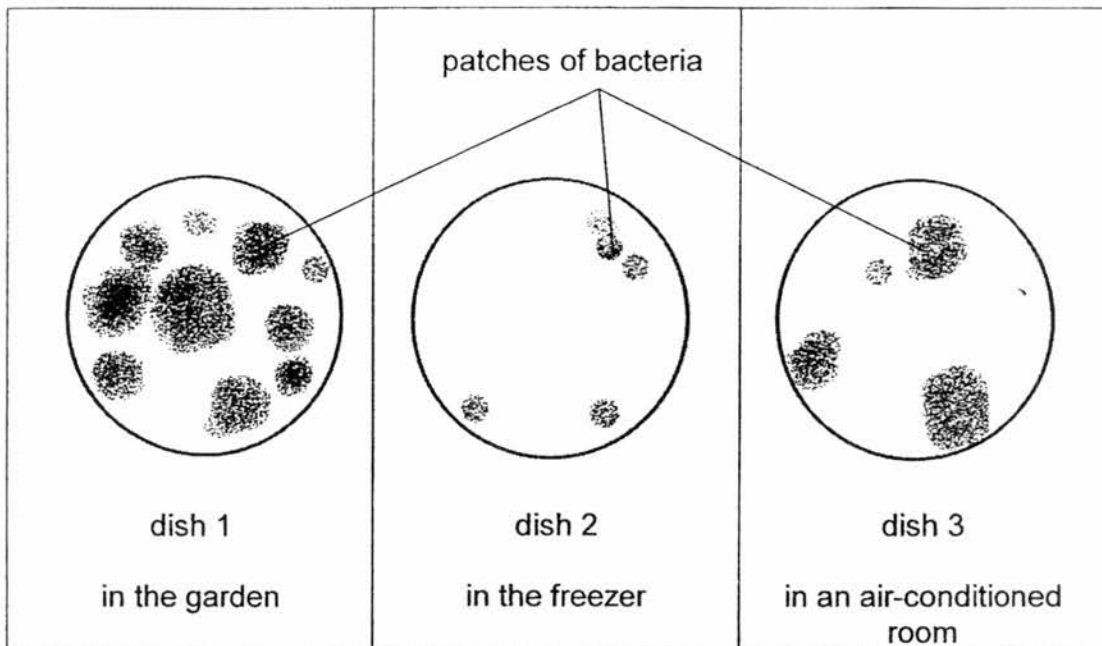
- A They live in different places.
- B They have different outer coverings.
- C They have different breathing methods.
- D They have different reproduction methods.

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

4. Which one of the following is the function of the gullet?

- (1) It digests food.
- (2) It absorbs all the waste in our food.
- (3) It allows the stomach to digest food better.
- (4) It allows food to move from the mouth to the stomach.

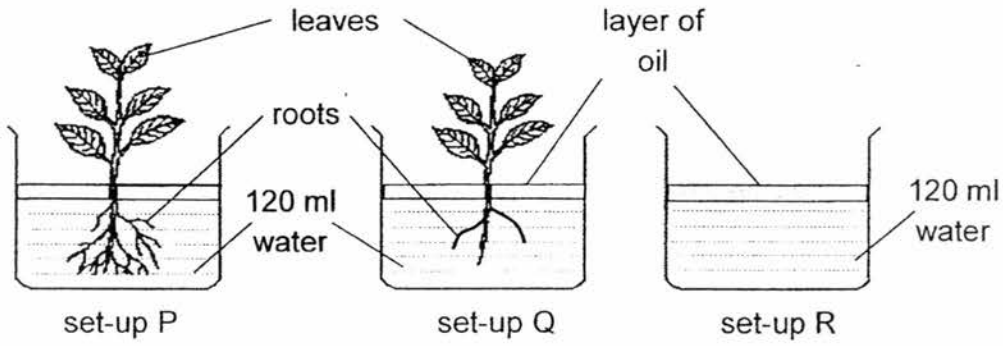
5. Jack conducted an experiment to find out if the amount of warmth affects the growth of bacteria. Bacteria was grown in three identical dishes and placed in three different places. The diagram below shows the amount of bacteria after five days.



Based on the results shown above, what can be concluded from the experiment?

- (1) Bacteria are harmful to us.
- (2) Bacteria cannot make their own food.
- (3) Cooler conditions increase bacteria growth.
- (4) Warmer conditions increase bacteria growth.

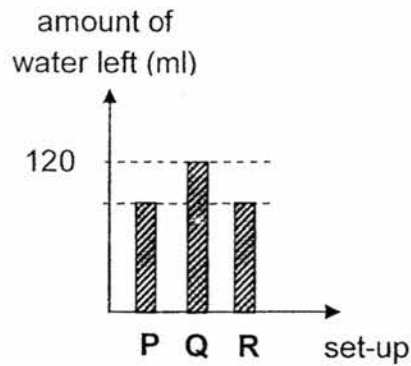
6. Emily set up the experiment as shown below.



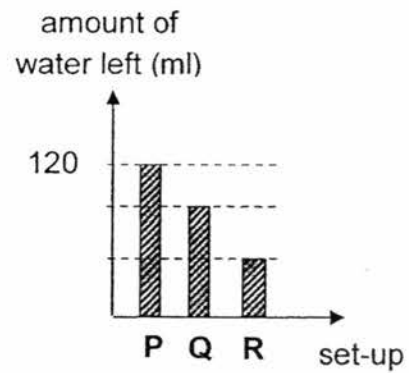
She left the set-ups near a window for three days.

Which one of the following graphs shows the correct amount of water left in each set-up after three days?

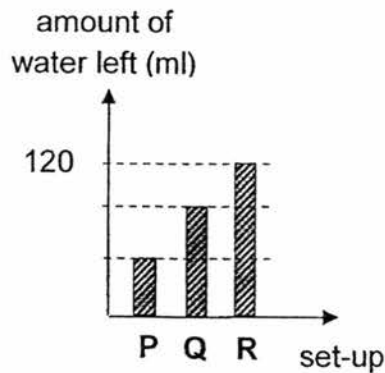
(1)



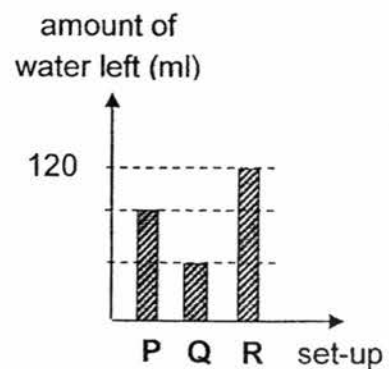
(2)



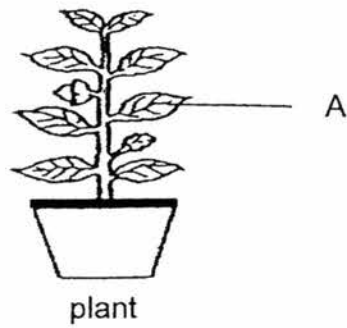
(3)



(4)



7. The diagram below shows a plant.



Which one of the following is a function of part A?

- (1) It helps the plant to take in air.
- (2) It helps the plant to grow straight up.
- (3) It helps the plant to absorb more minerals.
- (4) It helps the plant to absorb more rainwater.

8. Lynn observed four organisms A, B, C and D during an excursion to the zoo. She recorded her observations in the table shown below. A tick (✓) shows that the organism has the characteristic.

Characteristic	Organisms			
	A	B	C	D
Lays eggs		✓	✓	✓
Has scales				✓
Breathes through lungs	✓		✓	✓

Which one of the above organisms best represents a reptile?

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

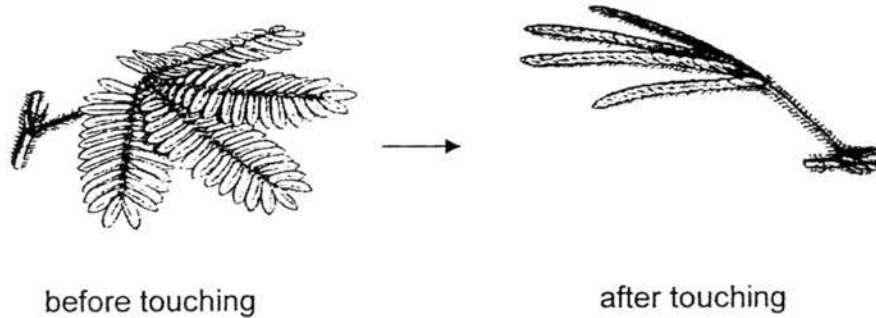
9. Study the classification table below.

<b>Group A</b>	<b>Group B</b>
Mango	Moss
Papaya	Mushroom
Hibiscus	Bird's nest fern

Which of the following are the correct headings for group A and group B?

	<b>Group A</b>	<b>Group B</b>
(1)	Bear flowers	Do not bear flowers
(2)	Grow on land	Grow in water
(3)	Do not have seeds	Have many seeds
(4)	Can make their own food	Cannot make their own food

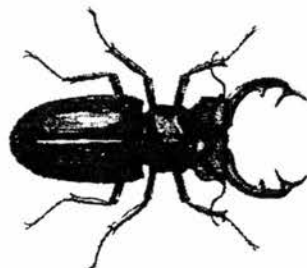
10. The diagram below shows a mimosa plant closing its leaves when it is touched.



Based on the diagram, which one of the following characteristics of living things does the mimosa plant show?

- (1) Living things can grow.
- (2) Living things can reproduce.
- (3) Living things need food to survive.
- (4) Living things can respond to changes.

11. The diagram below shows animal X.



animal X

Based only on what is observable, which one of the following statements best describes animal X?

- (1) It is an insect as it lays eggs.
- (2) It is not an insect as it does not have wings.
- (3) It is an insect as it has three body parts and six legs.
- (4) It is not an insect as it does not have three body parts.



12. Which of the following describe the function(s) of the stem?

- A Supports the plant
- B Absorbs water and minerals
- C Holds the plant firmly to the soil

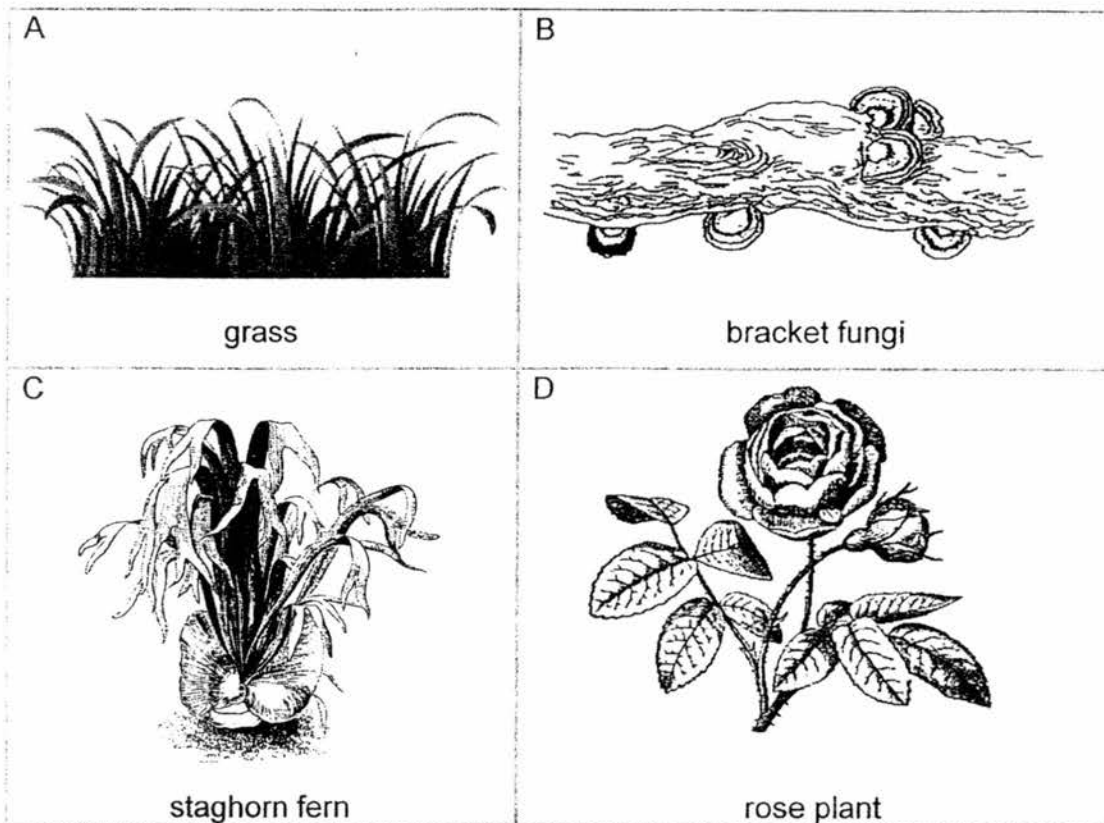
- (1) A only
- (2) B only
- (3) A and C only
- (4) B and C only

13. Which one of the following organisms is grouped **wrongly**?

Group S	Group T
frog	mosquito
salamander	ant
newt	scorpion

- (1) frog
- (2) scorpion
- (3) mosquito
- (4) salamander

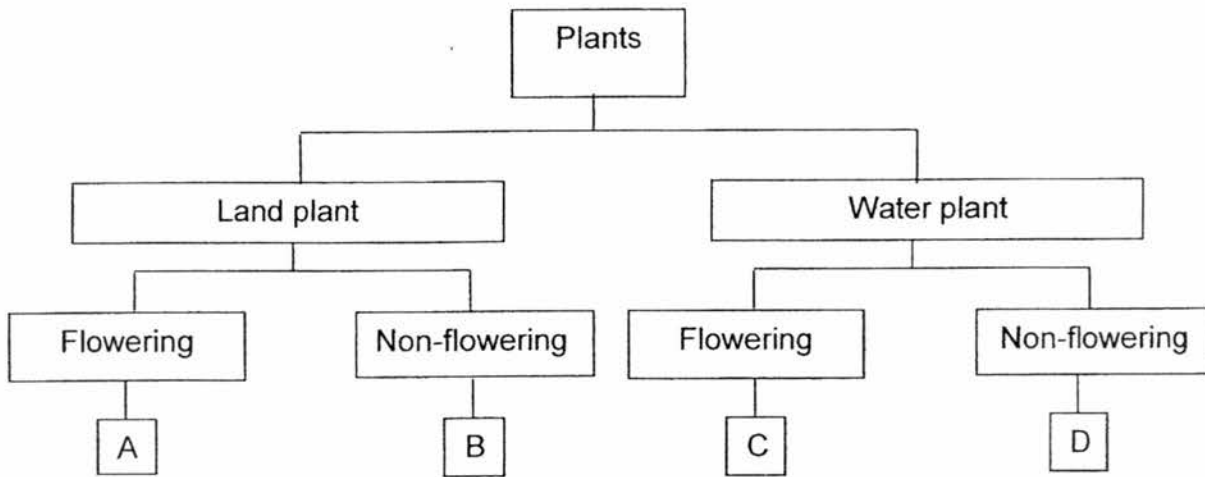
14. The diagram below shows four organisms.



Which of the above organisms reproduce by spores?

- (1) A and C only
- (2) A and D only
- (3) B and C only
- (4) B and D only

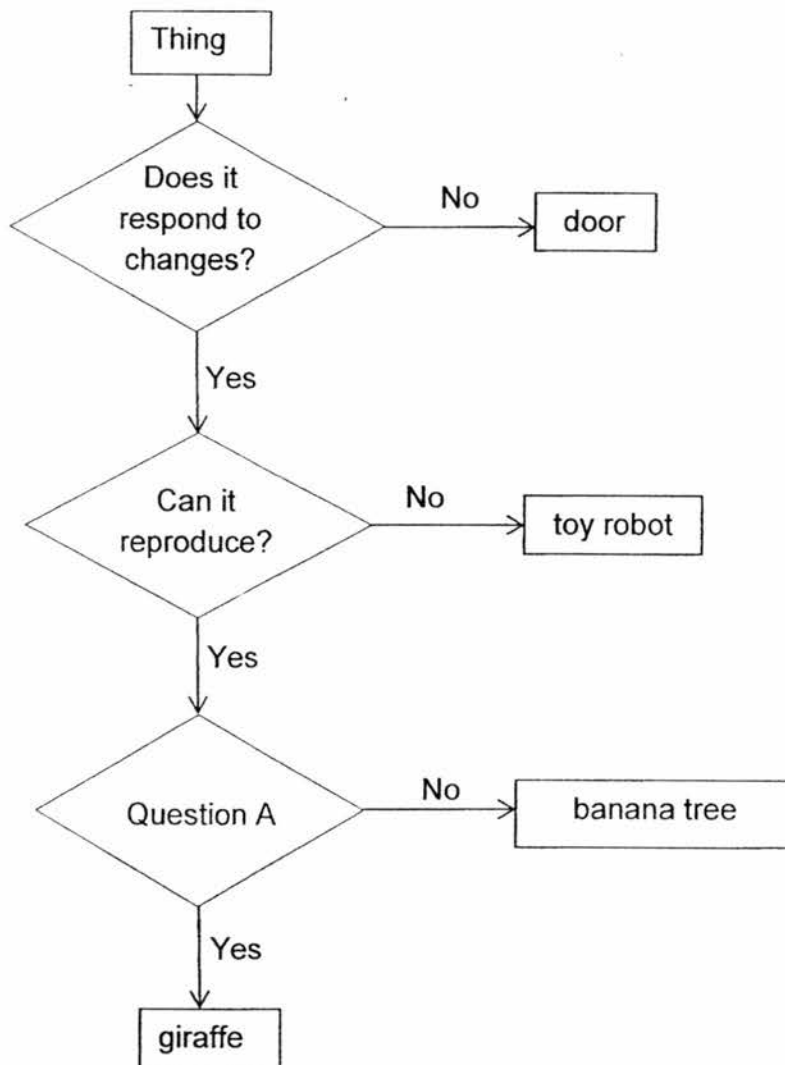
15. Study the classification table below.



Which one of the following A, B, C or D best describes a dragon scale fern?

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

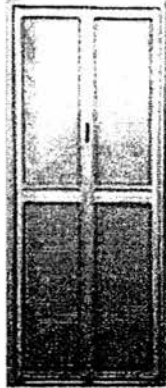
16. Study the flow chart shown below.



Which one of the following is most likely to be Question A?

- (1) Does it grow?
- (2) Does it make its own food?
- (3) Does it move around by itself?
- (4) Does it need air, food and water?

17. The diagram below shows a plastic toilet door.



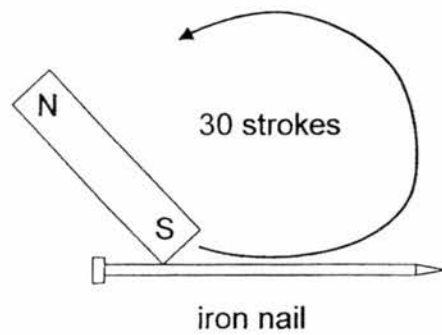
plastic toilet door

Which of the following properties of plastic should we consider when making the door as shown in the diagram above?

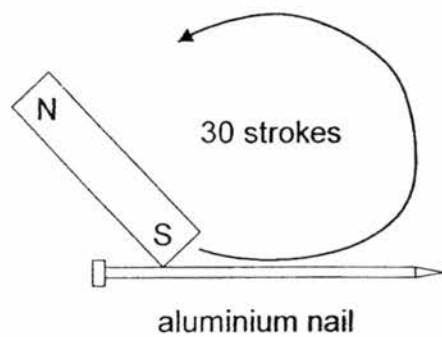
- A Plastic is strong.
  - B Plastic is flexible.
  - C Plastic is waterproof.
  - D Plastic can float or sink in water.
- 
- (1) A and C only
  - (2) A and D only
  - (3) B and C only
  - (4) B and D only

18. Which one of the following set-ups should Sue use to make the nail a temporary magnet so that she can attract the most number of steel clips?

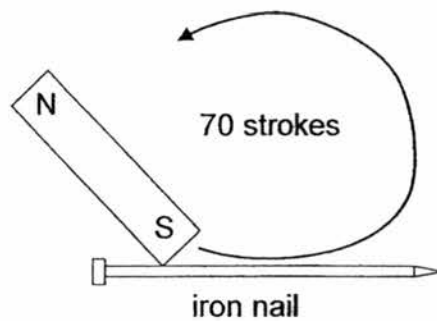
(1)



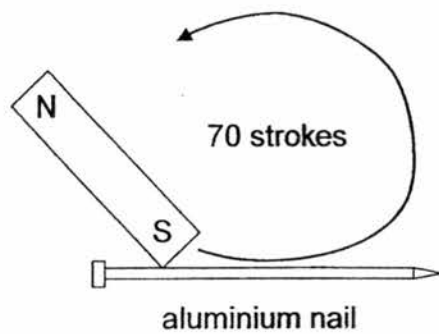
(2)



(3)



(4)



19. The properties of three objects are shown in the table below.

Properties	Objects		
	metal spoon	inflated balloon	leather belt
X	No	Yes	No
transparent	No	No	No
strong	Yes	No	Yes

Which one of the following best represents property X?

- (1) Stiff
- (2) Flexible
- (3) Waterproof
- (4) Ability to float

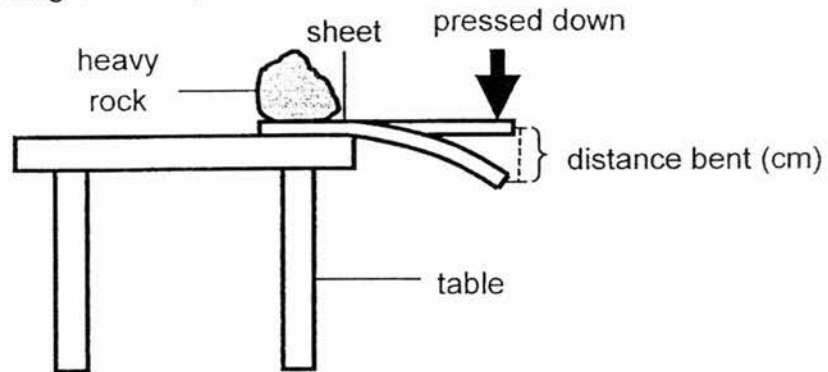
20. Which one of the following materials does not come from plants?

- (1) Wool
- (2) Wood
- (3) Cotton
- (4) Rubber

21. Which one of the following statements is true of magnets?

- (1) All metals are attracted to magnets.
- (2) Like poles of magnets can repel each other.
- (3) Two magnets will always attract each other.
- (4) Larger magnets have greater magnetic pull than smaller magnets.

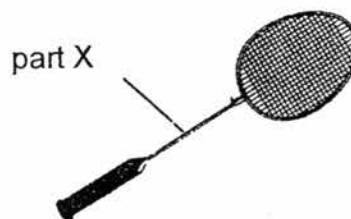
22. David set up an experiment to find out the flexibility of four sheets E, F, G and H which are made of different materials. He placed sheet E on the side of a table and placed a heavy rock on the sheet to hold it down firmly as shown below. Then, he pressed down on the sheet slowly until it broke. He repeated the experiment using sheets F, G and H.



He recorded the results in the table below.

Sheet	Greatest distance bent before breaking (cm)
E	1
F	10
G	8
H	5

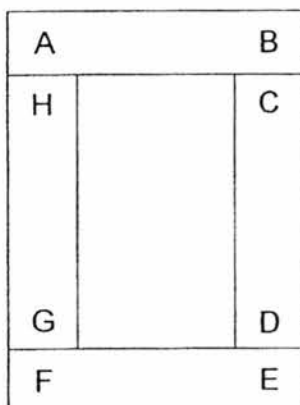
Based only on the results in the table above, which one of the sheets E, F, G or H is most suitable for making part X of the badminton racket shown below?



- (1) E
- (2) F
- (3) G
- (4) H

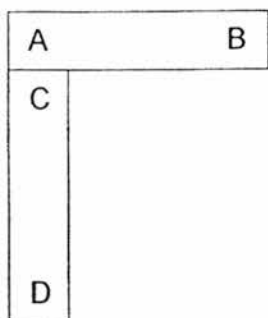


23. The diagram below shows four bar magnets with their ends marked A to H. The magnets can be arranged as shown below.

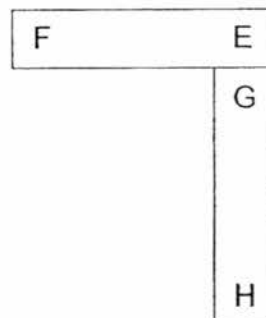


Which one of the following diagrams shows a possible arrangement of two of the magnets?

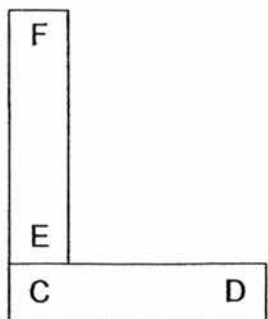
(1)



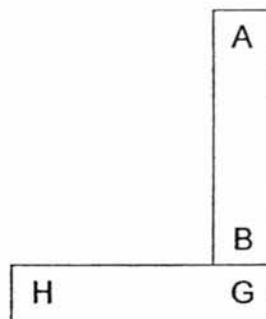
(2)



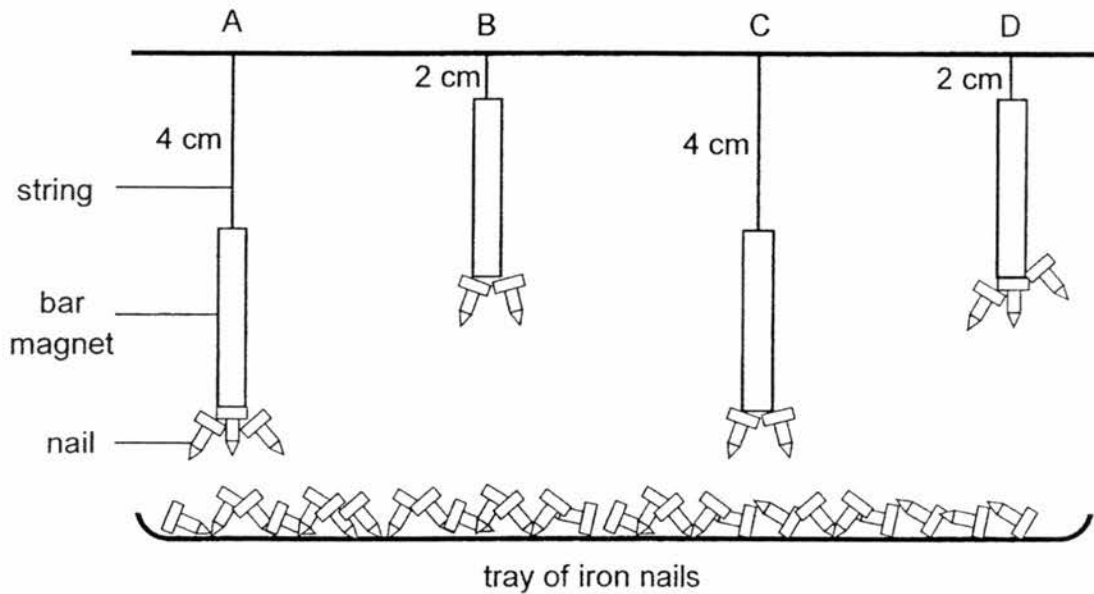
(3)



(4)



24. Jan suspended four identical bar magnets from the ceiling using strings at positions A, B, C and D. She placed a tray of iron nails below the magnets as shown below. It was observed that some nails were attracted to the magnets.



Based only on the results of the experiment above, which magnet has the **weakest** magnetic pull?

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

END OF BOOKLET A

Name : \_\_\_\_\_ ( )

Class : Primary 3 \_\_\_\_\_

## CHIJ ST NICHOLAS GIRLS' SCHOOL



### Primary 3 Semestral Assessment 2 SCIENCE

#### BOOKLET B

27 October 2017

Total Time for Booklets A and B: 1 hour 30 minutes

10 questions  
32 marks

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

This paper consists of 11 printed pages.

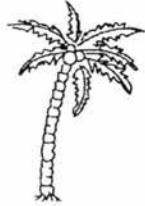
Booklet A	48
Booklet B	32
Total	80

\_\_\_\_\_  
Parent's Signature/Date

**Section B (32 marks)**

For questions 25 to 34, 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.

25. Justin found the following things on the beach.



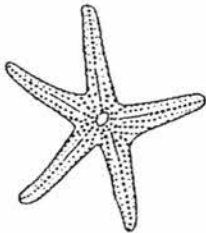
coconut tree



pail



snail



starfish



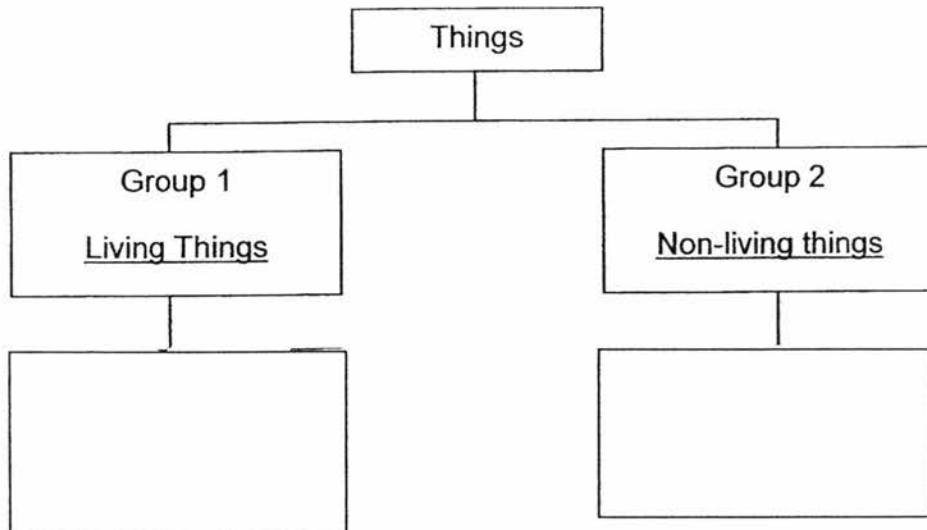
hermit crab



umbrella

(a) Classify the things above based on the headings as shown below.

[2]



(b) Justin saw a man paddling a boat in the sea. He said that the boat belonged to Group 1 as it could move. Do you agree with him? Give a reason for your answer.

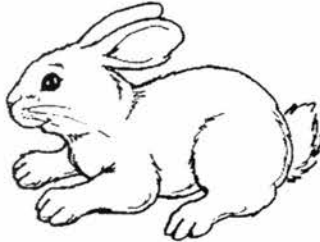
[1]

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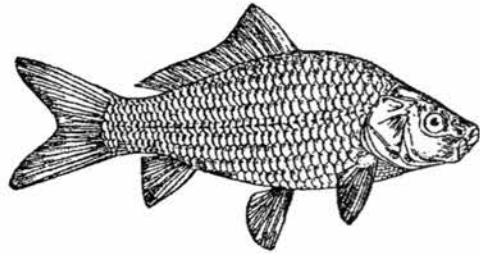
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26. The diagram below shows two animals, P and Q.



P



Q

(a) Based only on what is observable in the diagram above, which animal group does Q belong to? State two characteristics of the animal group to support your answer. [2]

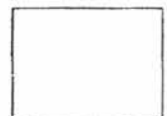
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(b) State one difference in the reproduction method of P and Q. [1]

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27. Study the table below. A tick (✓) shows that the living thing has the characteristic.

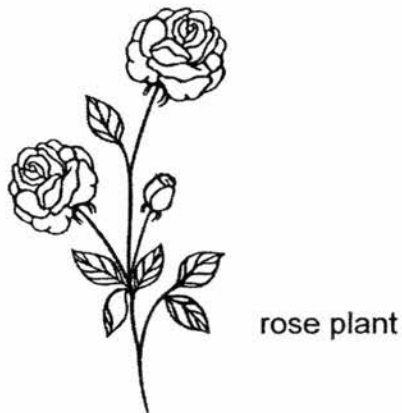
Characteristic	Living things		
	X	Y	Z
Needs air, food and water	✓	✓	✓
Moves from place to place	✓		
Has fruits		✓	

(a) Based on the table above, give a specific example of living thing X and Z. [2]

X:

Z: \_\_\_\_\_

The diagram below shows a rose plant.

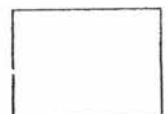


(b) Based on the table, in which group X, Y or Z would you place the rose plant?  
Give a reason for your answer. [1]

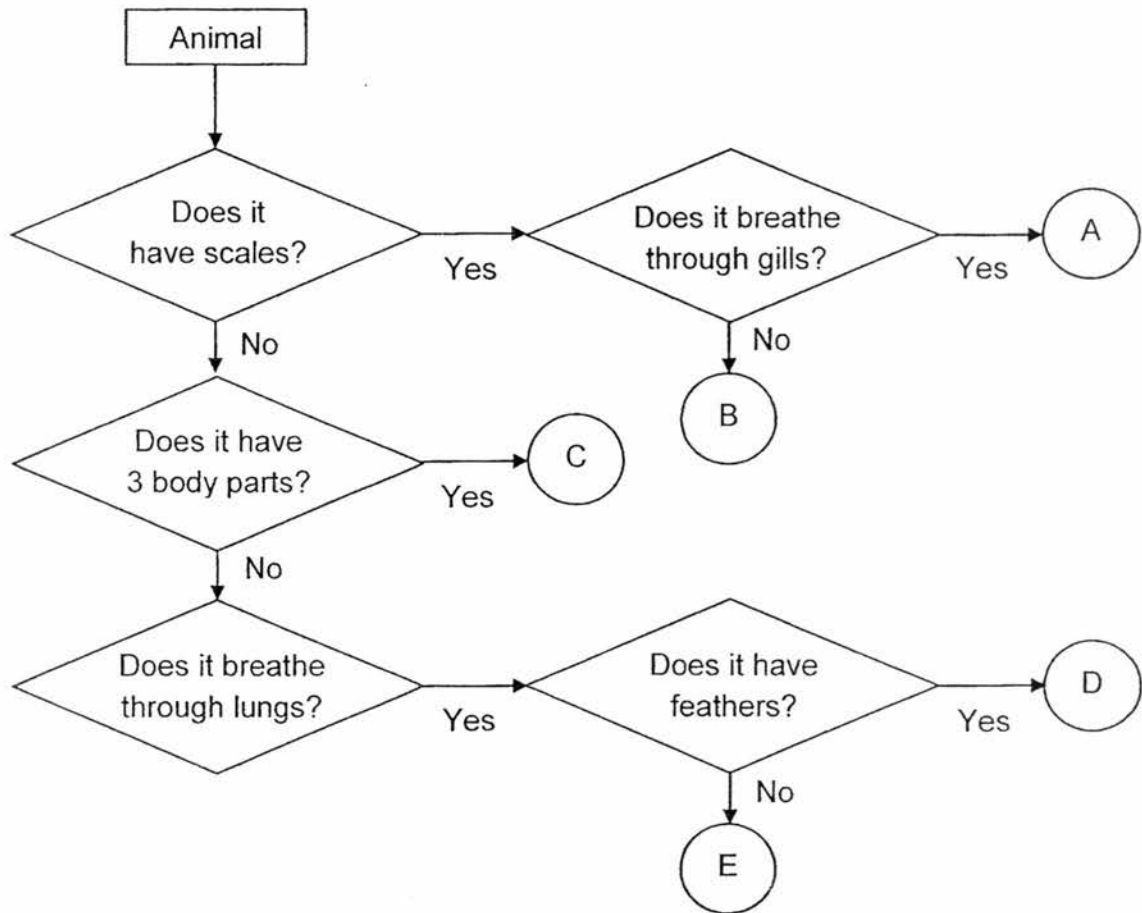
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28. Study the flow chart below.



(a) Based on the flow chart above, state two similarities between D and E. [2]

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(b) Based on the flow chart above, state one difference between A and B. [1]

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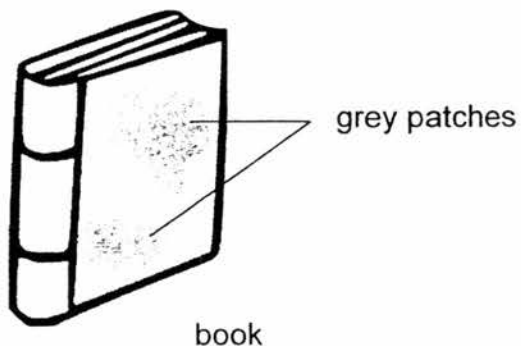
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(c) Based on the flow chart above, which letter A, B, C, D or E would best represent the animal below? [1]

Ostrich: \_\_\_\_\_



29. A book was placed in a cupboard for a long time. The diagram below shows some grey patches growing on the cover of the book when it was taken out of the cupboard.



- (a) What could these grey patches be? [1]

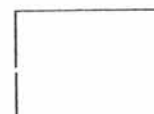
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- (b) State one possible action that can be done to reduce or slow down the growth of these grey patches. Give an explanation for your answer. [2]

Action: \_\_\_\_\_

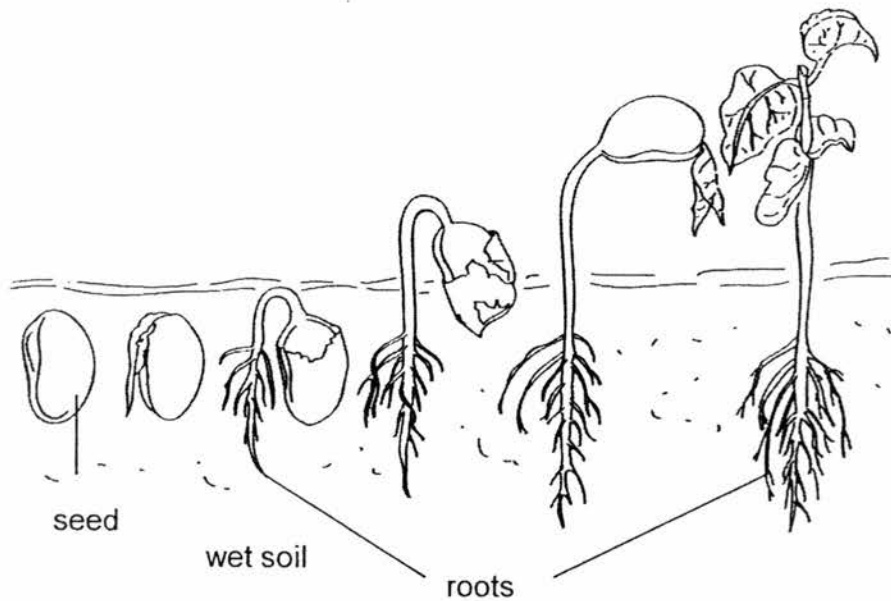
Explanation: \_\_\_\_\_

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30. The diagram below shows the growth of a seed to an adult plant.



(a) State why the roots of the plant grow downwards to the wet soil as shown in the diagram. [1]

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(b) State one characteristic of living things shown by the diagram above. [1]

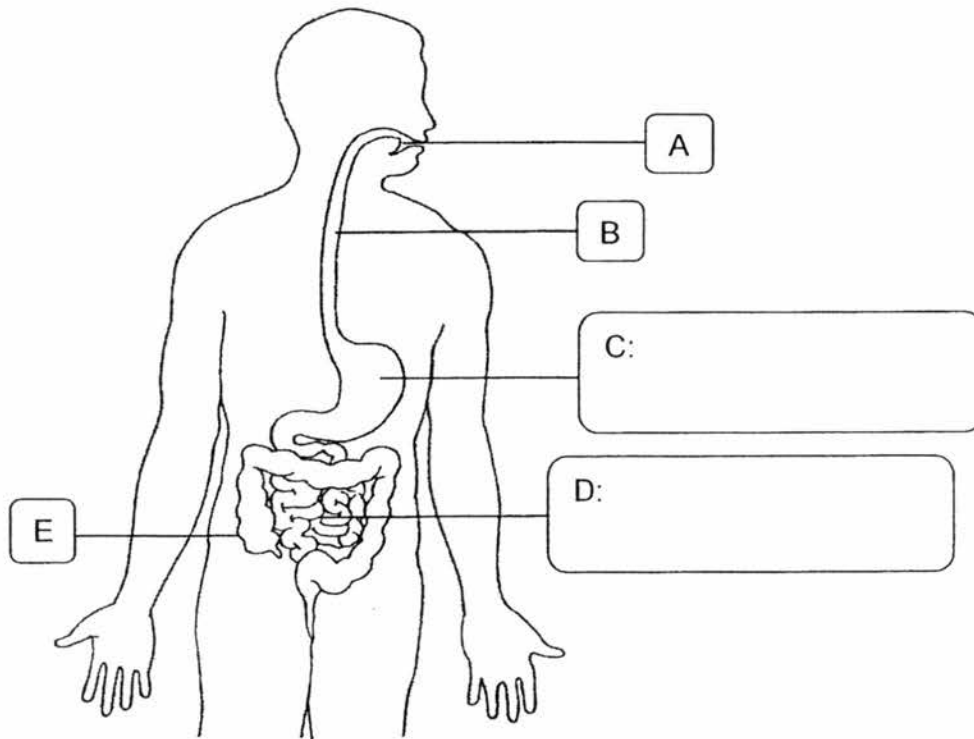
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31. The diagram below shows the human digestive system.

(a) Label parts C and D in the boxes below.

[1]



(b) State what happens to the digested food in organ D.

[1]

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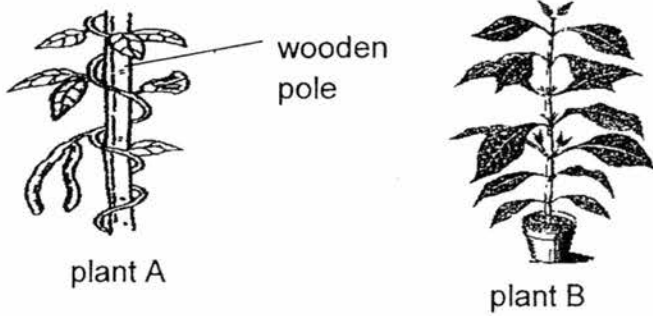
(c) Based on the diagram above, state the parts A, B, C, D and/or E where digestion of food takes place.

[1]

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32. Rhea found two plants in her school garden as shown below.



(a) State one difference between the stems of plant A and plant B. [1]

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(b) When the wooden pole was taken away, plant A was found to be growing unhealthy. Give a reason for this observation. [1]

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Rhea also found some fungi growing on a dead log in the school garden.



(c) State how fungi obtain their food. [1]

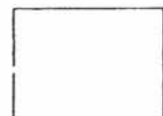
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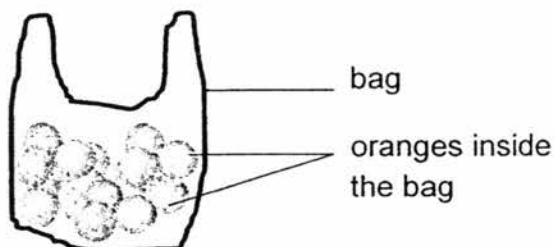
(d) Rhea wanted to bring the fungi home for her mother to cook. Do you think it is a good idea? Give a reason for your answer. [1]

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33. Timmy conducted an experiment using four bags made of different types of materials W, X, Y and Z. He filled bag W with oranges, one orange at a time, until the bag broke. He repeated the experiment using bags X, Y and Z.



He recorded his results in the table below.

Bag	Greatest number of oranges the bag can hold before breaking
W	30
X	45
Y	60
Z	80

- (a) State the property of the material that is being tested in this experiment. [1]

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- (b) Based only on the results of the above experiment, which bag W, X, Y or Z can carry 75 oranges? [1]

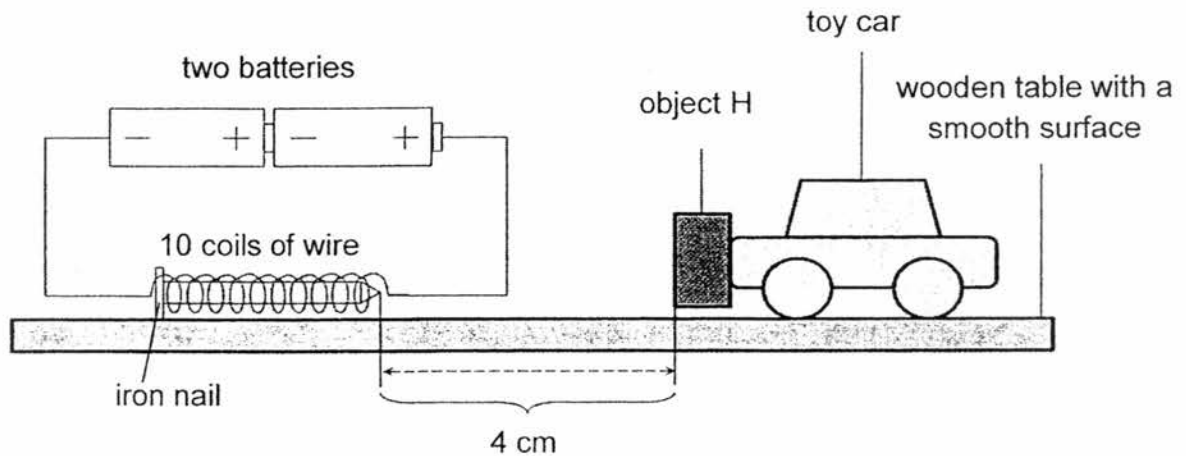
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- (c) Give a reason to support your answer in (b). [1]

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34. Moana conducted an experiment using the electromagnet shown below. Two batteries and a wire coiled 10 times around an iron nail were used. An object H, was attached to a toy car. The toy car was first placed 4 cm away from the iron nail. It was then observed that the toy car moved away from the iron nail.



- (a) Is object H a magnet or a magnetic object? [1]

\_\_\_\_\_

- (b) Give a reason to support your answer in (a). [1]

\_\_\_\_\_

- (c) State two ways to increase the magnetic strength of the electromagnet. [2]

1: \_\_\_\_\_

2: \_\_\_\_\_

END OF BOOKLET B



# ANSWER KEY

YEAR : 2017  
 LEVEL : PRIMARY 3  
 SCHOOL : CHIJ ST NICHOLAS GIRLS'  
 SUBJECT : SCIENCE  
 TERM : SA2

## Booklet A

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1	1	3	4	4	5	1	4
Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16
1	4	3	1	2	3	2	3
Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24
1	3	4	1	2	1	4	3

## Booklet B

25	(a)	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;"> <b>Group 1</b>  <u>Living Things</u>             snail            hermit crab            starfish            coconut tree         </td> <td style="width: 50%; text-align: center;"> <b>Group 2</b>  <u>Non-living things</u>             umbrella            pail         </td> </tr> </table>	<b>Group 1</b> <u>Living Things</u>  snail hermit crab starfish coconut tree	<b>Group 2</b> <u>Non-living things</u>  umbrella pail
	<b>Group 1</b> <u>Living Things</u>  snail hermit crab starfish coconut tree	<b>Group 2</b> <u>Non-living things</u>  umbrella pail		
(b)	No, as the man is making the boat move by paddling it.			
26	(a)	Q belongs to fish as it has scales and fins.		
	(b)	P is a mammal and it give birth to young alive but Q is a fish so it lay eggs.		
27	(a)	X: dolphin Z: fern		
	(b)	Y as it has flowers which can later develop into fruits under suitable conditions.		

28	(a)	Both does not have 3 body parts and they both breathe through lungs.
	(b)	A breathe through gills but B does not breathe through gills.
	(c)	Ostrich: <u>D</u>
29	(a)	Mould
	(b)	Action: <u>Silica gel.</u> Explanation: <u>To reduce/limit warmth/moisture thus reducing/slowing down mould growth.</u>
30	(a)	It can absorb water and mineral salts for the plant to make food.
	(b)	Living things can grow.
31	(a)	C: <u>stomach</u> D: <u>small intestine</u>
	(b)	Digested food is absorb into the box.
	(c)	A, C and D
32	(a)	Plant A coil around the wooden pole as its stem is weak but plant B has a strong stem.
	(b)	Plant A needs support to trap sunlight to make food.
	(c)	Fungi get their food by growing on living things dead or alive.
	(d)	No as it could be harmful.
33	(a)	Strength
	(b)	Z
	(c)	Z can hold 80 oranges and it is enough to hold 75 oranges.
34	(a)	A magnet.
	(b)	They like pole of both magnets are facing each other directly thus they repel.
	(c)	1: add more batteries. 2: coil more wire to the iron nail.

End