



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2016
PRIMARY 3

SCIENCE

BOOKLET A

24 Multiple Choice Questions (48 marks)

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

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Shade your answers in the Optical Answer Sheet (OAS) provided.

Marks Obtained

Booklet A		/ 48
Booklet B		/ 32
Total		/ 80

Name: _____ () Class: P 3 _____

Date: 10 May 2016

Parent's Signature: _____

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

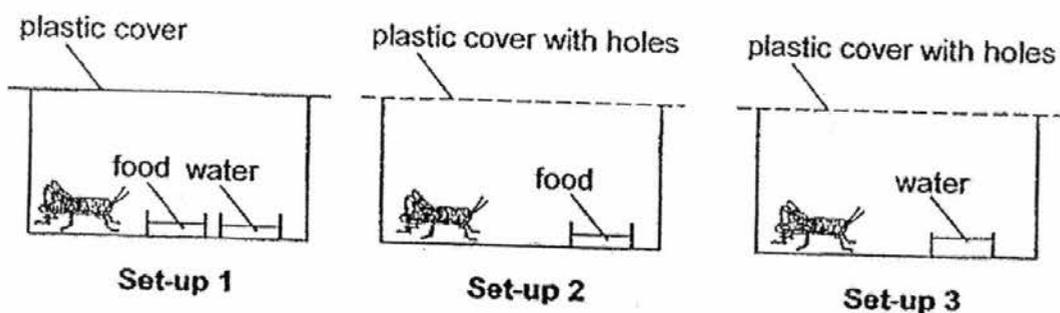
For each question from 1 to 24, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Study the following statements.
- A A millipede coils itself after being touched.
 - B A baby cries after hearing the loud thunder.
 - C A butterfly flies away from a hungry bird chasing it.

These statements show that living things can _____.

- (1) die
- (2) grow
- (3) respond
- (4) reproduce

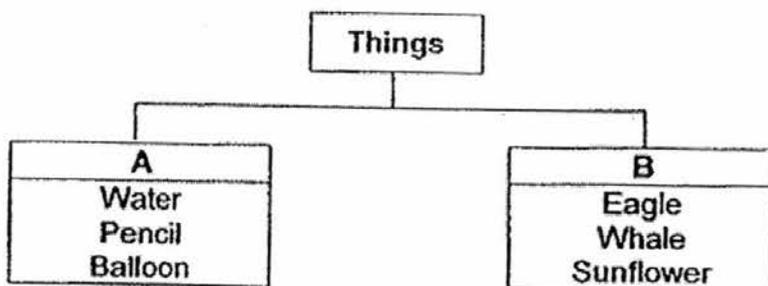
2. Study the three set-ups below.



All the three grasshoppers in the above three set-ups died after some time. Which of the following correctly explains why each grasshopper in Set-ups 1, 2 and 3 died?

	Set-up 1	Set-up 2	Set-up 3
(1)	No food	No air	No water
(2)	No air	No food	No water
(3)	No air	No water	No food
(4)	No water	No air	No food

3. Study the classification table below.



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

	A	B
(1)	Living things	Non-living things
(2)	Non-living things	Living things
(3)	Things that can grow	Things that cannot grow
(4)	Things that can move	Things that cannot move

4. Which of the following statements are true of the Bird's Nest Fern?

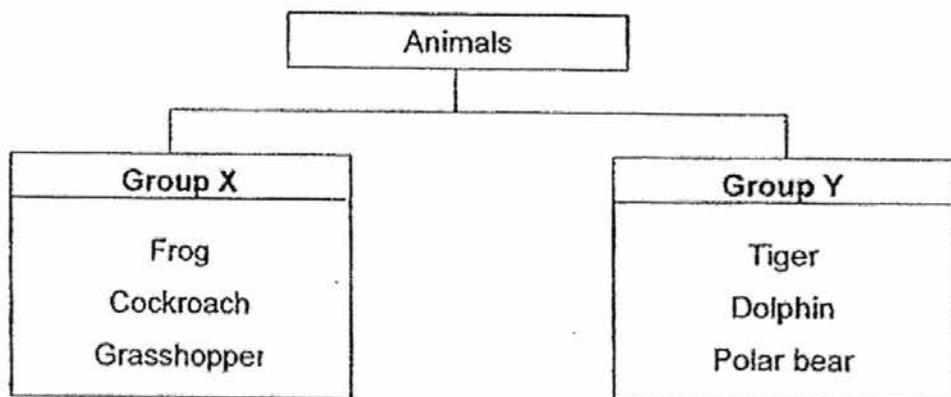


Bird's Nest Fern

- A It reproduces by seeds.
- B It does not bear flowers.
- C It reproduces by spores.
- D It cannot make their own food.

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

5. Study the two groups of animals below carefully.



Which of the following correctly describe the animals in groups X and Y respectively?

	Group X	Group Y
(1)	Have six legs	Have four legs
(2)	Have wings	Have no wings
(3)	Have feelers	Have no feelers
(4)	Lay eggs	Give birth to young alive

6. Study the two pictures below.



Toadstool



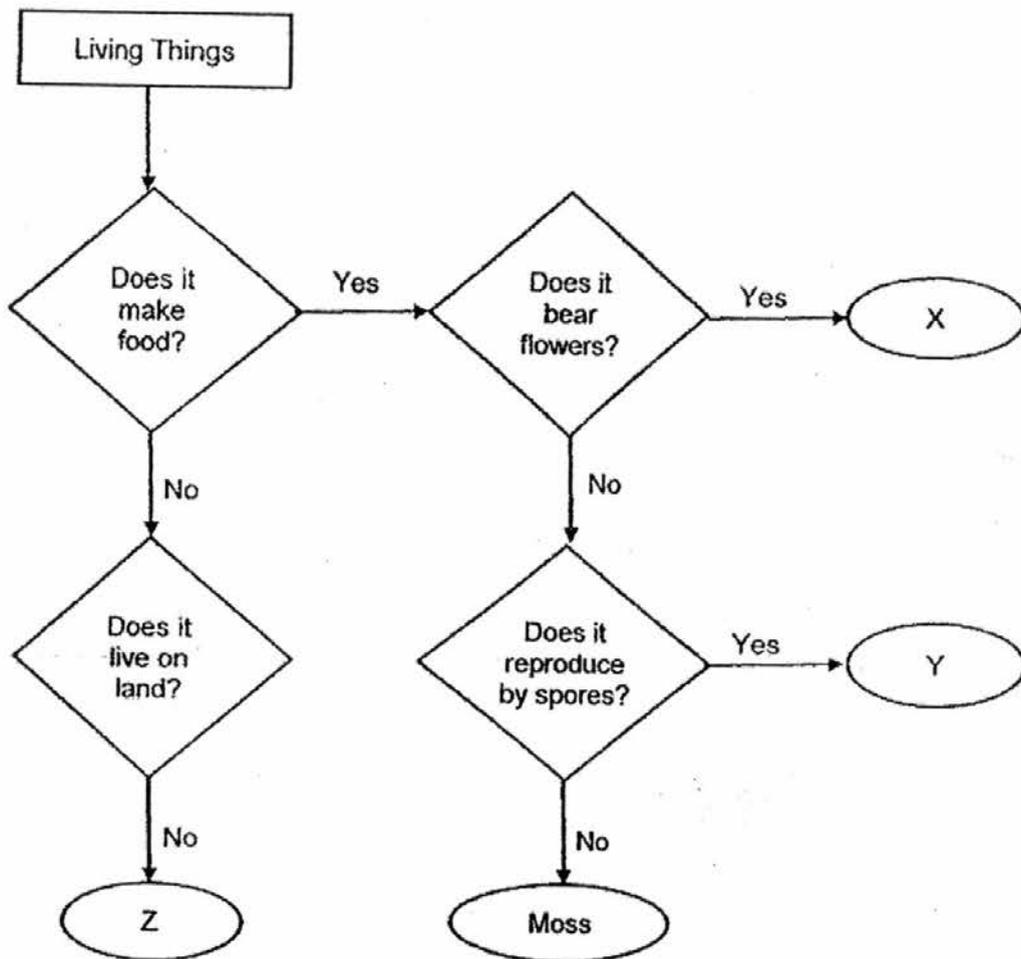
Bracket fungus

How are the toadstool and bracket fungus similar?

- A They reproduce by spores.
- B They are non-flowering plants.
- C They can make their own food.
- D They need air, food and water to survive.

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

7. Study the flow chart below. It shows the characteristics of living things X, Y and Z.



Which one of the following sets is the correct example of each of the living things, X, Y and Z?

	X	Y	Z
(1)	Rose plant	Mushroom	Dolphin
(2)	Fern	Rose plant	Mushroom
(3)	Mushroom	Fern	Rose plant
(4)	Rose plant	Fern	Dolphin

8. Which of the following objects is made of a light and flexible material?

(1)



Scissors

(2)



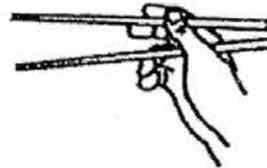
Screwdriver

(3)



T-shirt

(4)



Chopsticks

9. Study the table below.

Group K		Group L	
			
Glass vase	Ceramic Pot	Metal key	Silk tie

What would be the most suitable headings for Group K and Group L?

	Group K	Group L
(1)	Stiff	Flexible
(2)	Sink in water	Float on water
(3)	Waterproof	Not waterproof
(4)	Breaks easily	Does not break easily

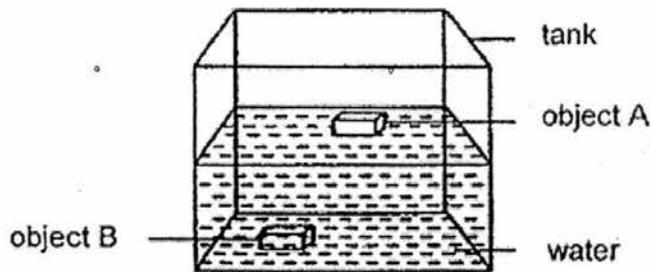
10. Study the table below.

Material	W	X	Y	Z
Flexible	No	No	No	Yes
Waterproof	Yes	Yes	No	No
Transparent	No	Yes	Yes	No

Which of the materials is most suitable for making a tablecloth?

- (1) Material W
- (2) Material X
- (3) Material Y
- (4) Material Z

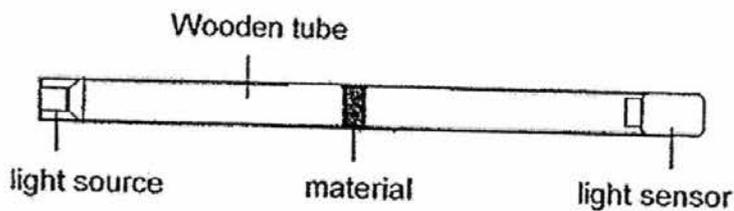
11. Study the diagram below carefully. Both objects A and B are of similar shape and size.



What are the most likely materials used to make objects A and B?

	Object A	Object B
(1)	Metal	Plastic
(2)	Rubber	Wood
(3)	Metal	Rubber
(4)	Wood	Metal

12. Kenny set up the following experiment to measure the amount of light passing through three materials, A, B and C, using a light sensor fixed at one end of a wooden tube. A light source was attached at the other end of the tube.



He recorded the results in the table below.

Material	Amount of light (units) measured by light sensor
A	155
B	273
C	90

Which one of the following correctly shows the arrangement of materials according to the amount of light passing through it?

	allows least light to pass through	→	allows most light to pass through
(1)	B	A	C
(2)	B	C	A
(3)	C	A	B
(4)	C	B	A

13. Jason recorded his brother's age and height in the table as shown below.

Age (months)	Height (cm)
1	51
3	54
5	57
7	62

Based on the table above, what can you conclude about living things?

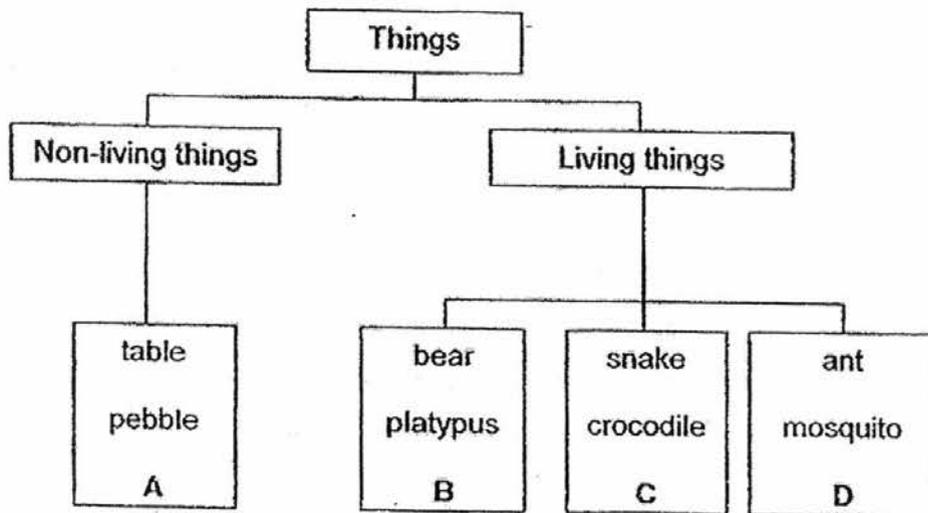
- (1) Living things grow.
 - (2) Living things move by themselves.
 - (3) Living things respond to changes around them.
 - (4) Living things need air, food and water to survive.
14. Ronald kept some guinea pigs in his cage. He fed them daily with food and water. At the end of each month, he recorded the number of guinea pigs in the table below. No guinea pigs were added or taken out of his cage.

Month	Number of guinea pigs
January	4
March	7
June	10
September	14
December	20

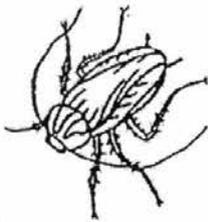
Based on the table above, what can you conclude about living things?

- (1) Living things die.
- (2) Living things reproduce.
- (3) Living things can respond to changes.
- (4) Living things need air, food and water to survive.

15. Sam had an outing to the Singapore Zoo and decided to group the things he saw into the classification chart below.



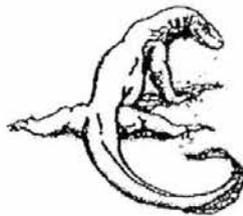
He also observed the following things during the outing as well and added them (A, B, C and D) into the groups above.



Cockroach



Lion



Komodo dragon



Umbrella

Which of the following correctly represent A, B, C and D?

	A	B	C	D
(1)	Umbrella	Komodo dragon	Cockroach	Lion
(2)	Umbrella	Lion	Komodo dragon	Cockroach
(3)	Umbrella	Lion	Cockroach	Komodo dragon
(4)	Umbrella	Cockroach	Lion	Komodo dragon

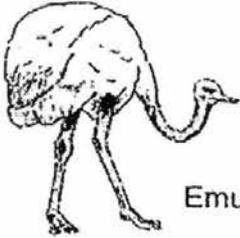
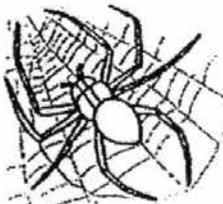
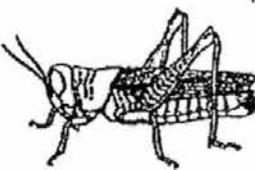
16. The table below shows characteristics of living things A, B, C and D. A tick (✓) shows that the living thing has that characteristic.

Characteristic	A	B	C	D
Bear fruits	✓			✓
Grow on land		✓	✓	✓
Reproduce from spores		✓	✓	
Have roots, stems and leaves	✓		✓	✓

Which of the following is/are non-flowering plant(s)?

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

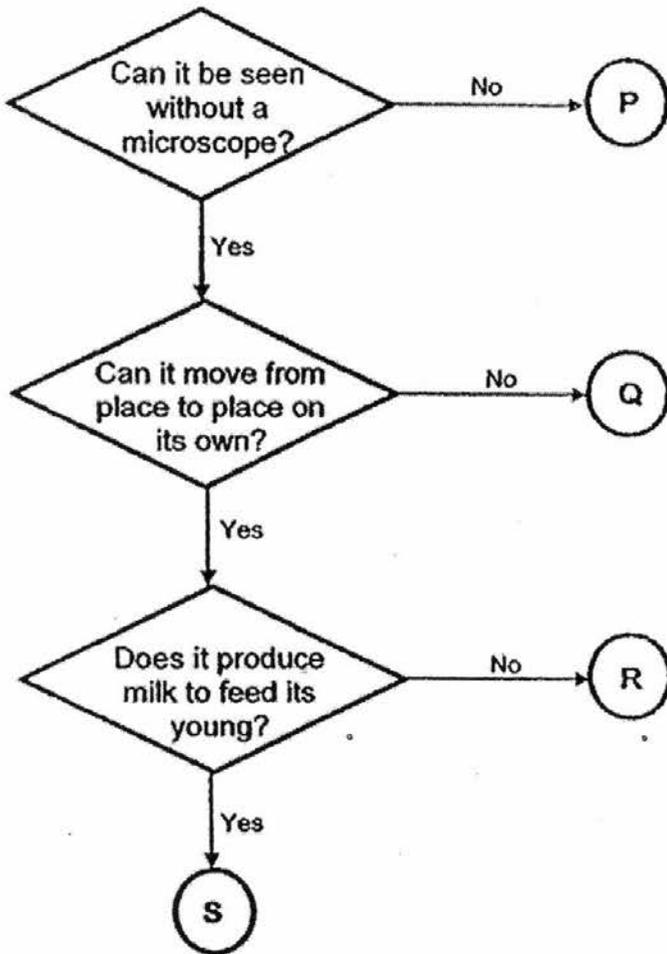
17. Study the table below.

Group P	Group Q
 <p>Eagle</p>  <p>Penguin</p>  <p>Emu</p>	 <p>Butterfly</p>  <p>Spider</p>  <p>Grasshopper</p>

Which of the following are suitable headings for Group P and Group Q?

	Group P	Group Q
(1)	Birds	Insects
(2)	Covered with feathers	Not covered with feathers
(3)	Can fly	Cannot fly
(4)	Give birth to young	Lay eggs

18. Study the flowchart below.



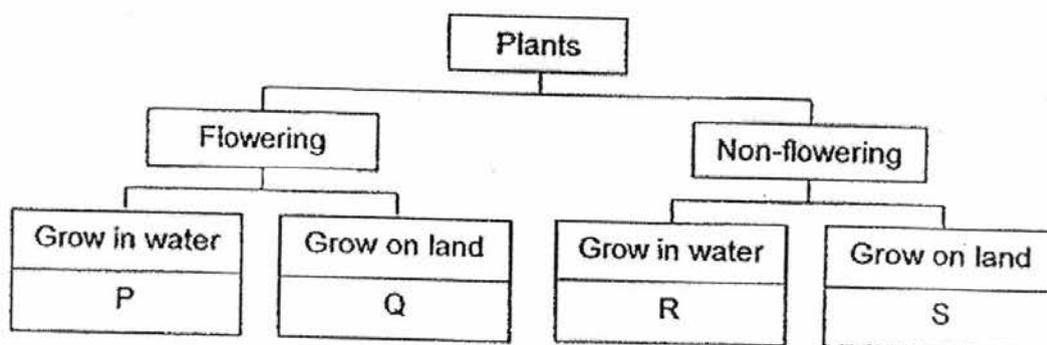
Which one of the following correctly represent living things P, Q, R and S in the above flowchart?

	P	Q	R	S
(1)	Bacteria	Yeast	Mushroom	Goat
(2)	Yeast	Goat	Bacteria	Shark
(3)	Bacteria	Mushroom	Shark	Goat
(4)	Mushroom	Bacteria	Goat	Shark

19. The characteristics of two plants, A and B, are shown in the table below.

Characteristics	Plant A	Plant B
Bears flowers	Yes	No
Grows in water	Yes	No
Grows on land	No	Yes

From the information given in the table above, where would you classify plants A and B in the following chart?



	Plant A	Plant B
(1)	P	Q
(2)	R	S
(3)	P	S
(4)	R	Q

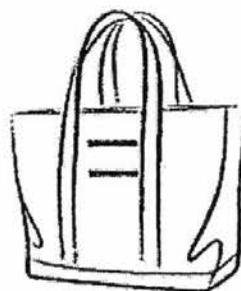
20. Daniel recorded the characteristics of three materials in the table below. A tick (✓) shows that the material has that characteristic.

Material	Sinks in water	Breaks easily	Flexible
Q	✓	✓	
R	✓		✓
S	✓		

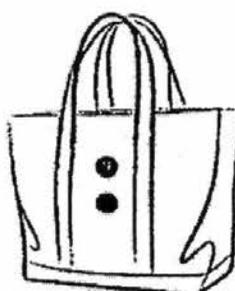
Which of the following represents materials Q, R and S?

	Material Q	Material R	Material S
(1)	Metal	Ceramics	Rubber
(2)	Ceramics	Rubber	Metal
(3)	Rubber	Metal	Ceramics
(4)	Metal	Rubber	Ceramics

21. Alif put items of equal mass into two bags, X and Y. The bags were similar but made of different materials. When both bags were lifted off the ground, bag Y burst and all the items in the bag fell out. Bag X did not burst.



Bag X



Bag Y

What could Alif conclude from this observation?

- (1) Bag X is lighter than Bag Y.
- (2) Bag X is softer than Bag Y.
- (3) Bag X is stronger than Bag Y.
- (4) Bag X is more flexible than Bag Y.

22. Jane weighed the mass of 4 materials, A, B, C and D, before placing them into a container of water. The objects were taken out after 10 minutes and their mass were weighed again. She recorded the results in the table below.

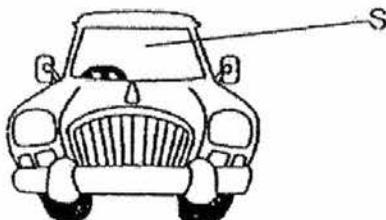
Materials	Mass at the start	Mass after 10 minutes in water
A	5 g	15 g
B	10 g	50 g
C	15 g	15 g
D	20 g	35 g

Which one of the following materials can be used to make a raincoat?

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

23. Rachelle observed and recorded the characteristics of 4 materials, A, B, C and D, in the table below.

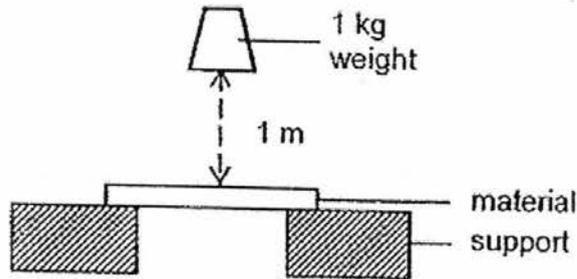
Material	Is it flexible?	Does it allow light to pass through?	Is it waterproof?
A	Yes	No	Yes
B	No	No	Yes
C	Yes	Yes	No
D	No	Yes	Yes



Based on the information given in the table above, which material is most suitable for making Part S of the car?

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

24. Sophia tested the strength of materials A, B, C and D by dropping 1 kg weight from a height of 1 m, using the set-up shown below. The materials were of the same size, thickness and shape.



She noted the number of times the weight was dropped before the materials broke. Her results are shown below.

Material	Number of drops to break the material
A	40
B	25
C	55
D	18

Based on the results in the table above, which one of her conclusions is correct?

- (1) Material C is the weakest material.
- (2) Material A is the strongest material.
- (3) Material B is weaker than material D.
- (4) Material C is stronger than material B.



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2016
PRIMARY 3

SCIENCE

BOOKLET B

10 Open-ended questions (32 marks)

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

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.

Marks Obtained

Section B

	/ 32
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Name: _____ () Class: P 3 _____

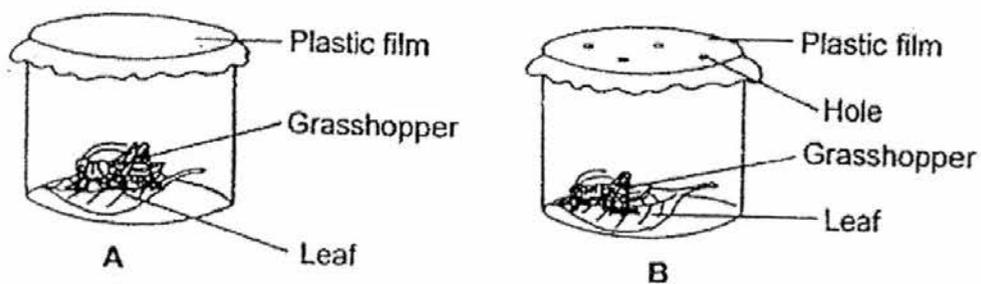
Date: 10 May 2016

Parent's Signature: _____

Section B: (32 marks)

Write your answers to questions 25 to 34 in the space provided.
The number of marks allocated is shown in brackets [] at the end of each question or part of the question.

25. Cindy placed two grasshoppers in two separate containers, A and B, as shown in the diagram below. The two containers are sealed with a plastic film.



- (a) In her experiment, she is trying to find out if living things need _____ to survive. [1]
- (b) In which of the containers, A or B, would the grasshopper survive for a longer period of time? Give a reason for your answer. [1]

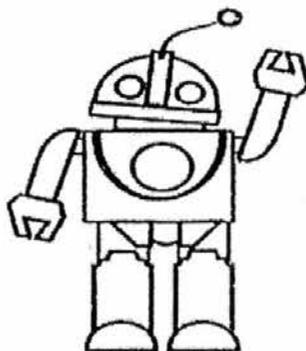
Score	2
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26. Sandy received a dog from her parents as her birthday present. She also received a toy robot from her aunt. Both started to respond and move towards her when she gave a command, "Come!"

Sandy said that both are living things since they both can respond and move by themselves.



A dog



A robot

- (a) Do you agree with her statement? Explain your answer. [1]

- (b) During her Science lesson, her teacher, Mrs Loh, introduced different groups of animals to the class. Sandy said that her dog is a mammal.

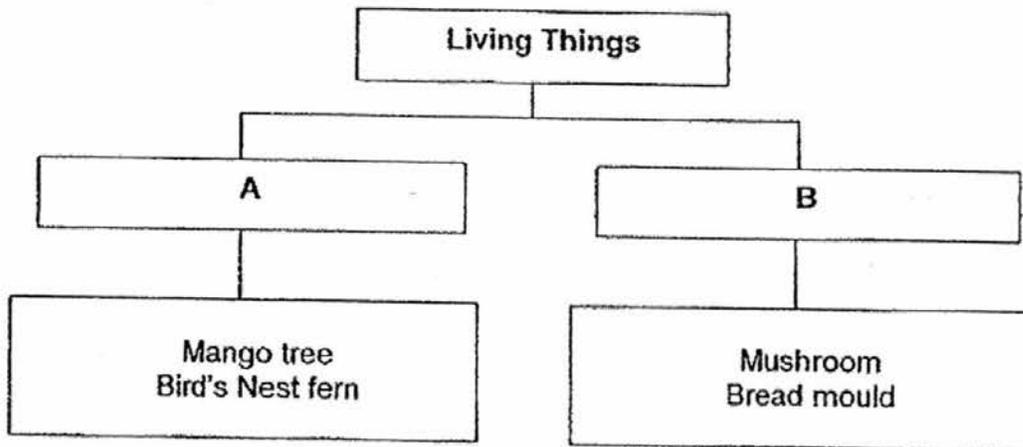
List two characteristics of the dog which show that it is a mammal. [2]

(i) _____

(ii) _____

Score	3
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27. Study the classification chart below.



(a) Give suitable headings for groups A and B. [2]

A: _____

B: _____

(b) State one difference between the way the mango tree and the bread mould obtain food. [1]

(c) State one similarity between the Bird's Nest fern and the mushroom [1]

Score	4
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28. Some objects are put into four groups according to the material that they are made of.

Group A	Group B	Group C	Group D
Car windscreen	Needle	Water bottle	T-shirt
Window pane	Screwdriver	Pail	Towel

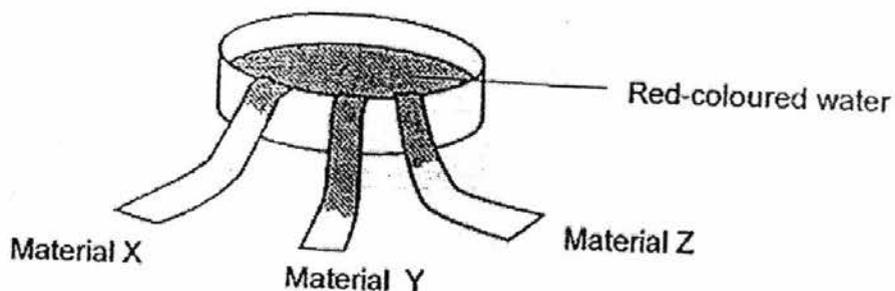
- (a) Identify the materials that are used to make the following objects. [2]

Group	Materials
A	
B	
C	
D	

- (b) Name two properties of the material that made it suitable for making the objects in Group B. [2]

Score	4
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29. Amy carried out an experiment using equal lengths of three materials. She dipped part of the material into a dish of coloured water and waited for five minutes. The diagram below shows the result of her experiment.



- (a) Based on the results above, which material, X, Y or Z, should Amy use to wipe away the water that she spilled on the table quickly? [1]

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

Score	
	2

30. A cleaner at the canteen saw some crows pecking at left-over food in the rubbish bin. She yelled at them and upon hearing her scream, the crows flew away.



- (a) The crows flew away upon hearing her scream. What characteristic of living things does this show? [1]

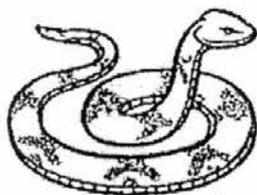
- (b) Despite yelling at the crows, the crows kept flying back to peck at the food. List two other characteristics of living things shown in this observation. [2]

(i) _____

(ii) _____

Score	3
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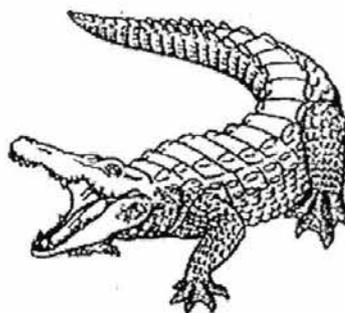
31. Study the animals below.



X



Y



Z

- (a) Based on your observations, which one of the above animals, X, Y or Z, does not belong to the same group? Give a reason for your answer. [1]

- (b) What animal group does animal X belong to? [1]

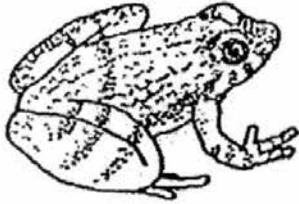
- (c) State two characteristics of the animal group mentioned in (b). [2]

(i)

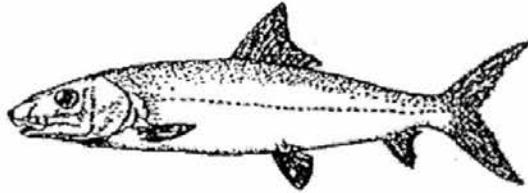
(ii)

Score	<hr/>
	4

32. Jayden went to the school pond and saw two animals as shown in the diagrams below.



Frog



Fish

(a) How do the frog and fish reproduce? [1]

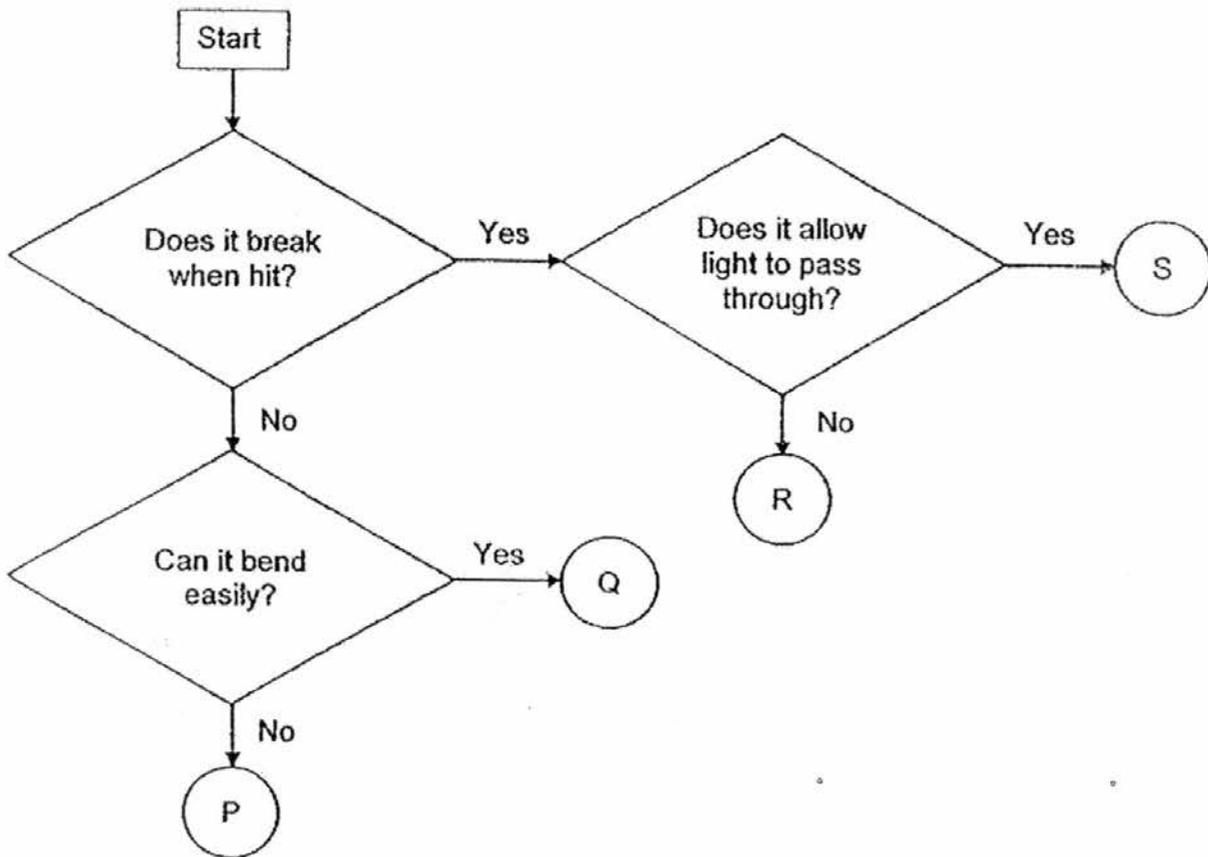
(b) State two **observable** differences between the frog and the fish. (Do not compare their shape, colour and size) [2]

(i) _____

(ii) _____

Score	3
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33. Study the flow chart below carefully.



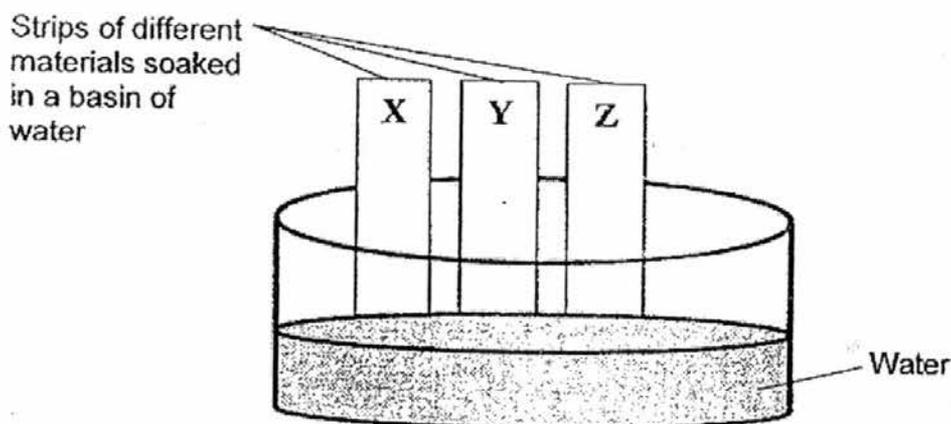
(a) Based on the flow chart above, state two properties of object Q. [2]

(b) Match the following objects with the correct letters (P, Q, R and S) shown in the diagram above [2]

- Iron nail : _____
- Ceramic tile : _____
- Rubber band : _____
- Spectacle lens: _____

Score	4
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34. Daniel experimented with three different types of materials, X, Y and Z. He soaked each material in a basin of water as shown in the diagram below. After 30 minutes, he weighed them and recorded the mass.



Material	Mass of material before experiment	Mass of material after experiment
X	1000g	1300g
Y	1000g	1100g
Z	1000g	1000g

- (a) Which material (X, Y, or Z) would be most suitable to make a bath towel? Using the information provided in the table above, explain your answer clearly. [2]

- (b) Daniel repeated the same experiment a few times. Why is there a need to repeat the experiment? [1]

Score	3
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End of paper

EXAM PAPER 2016 (P3)

SCHOOL : NAN HUA

SUBJECT : SCIENCE

TERM : SA1

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

25)a)air

b)Container B. There are holes in the plastic film which allow air/oxygen to enter.

26)a)No. The robot is not a living thing ad it does not need air, food, water to survive.

b)i)The dog is covered with hair.

ii)It reproduce by giving birth to young.

27)a)A: Plants

B: Fungi

27)b)The mango tree makes its own food but the bread mould depends on bread for food.

c)Both of them reproduce by spores.

28)a)A: Glass

B: Metal

C: Plastic

D: Fabric

b)Hard/ strong/ does not break easily.

29)a)Material Y.

b)Material Y absorbs the most water.

30)a)Living things respond to changes around them.

b)i)Living things need food to survive.

ii)Living things can move by themselves.

31)a)Animal Y. Animal Y is an insect but animals X and Z are reptiles.

b)Reptile.

c)i)They are cold blooded.

ii)Reproduce by laying eggs.

32)a)They reproduce by laying eggs.

b)i)The frog is an amphibian but the fish is a fish.

ii)The frog has legs but the fish does not have legs.

33)a)Object Q does not break when hit and it can bend easily.

b)P, R, Q, S

34)a)Material X. It gained the greatest mass after the experiment so it absorbs the most amount of water.

b)So Daniel can know if the results are the same.