



**NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2014
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 : 16 May 2014

Parent's Signature: _____

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

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 (OAS) provided.

1. Which of the following statements are true about all living things?

- A They can grow and reproduce.
- B They can respond to changes around them.
- C They can move from one place to another on their own.

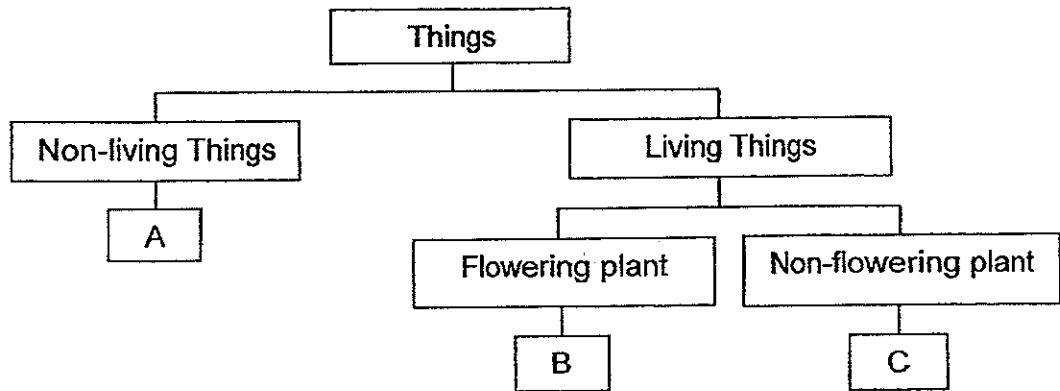
- (1) A and B only
- (2) A and C only
- (3) B and C only
- (4) A, B and C only

2. Which of the following would green plants need to grow well?

- A Air
- B Food
- C Water

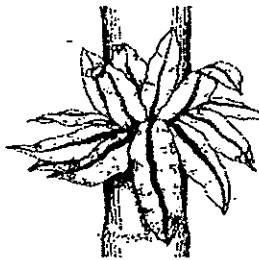
- (1) A and B only
- (2) B and C only
- (3) A and C only
- (4) A, B and C

3. Minghui drew a simple classification chart to group the things he observed during his learning journey:



How would he group the following things into his classification chart?

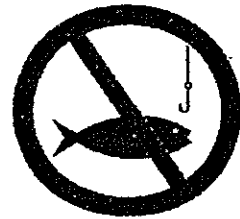
Bird's Nest Fern



Orchid

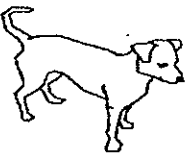

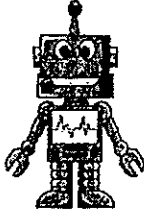



Signboard



	Bird's Nest Fern	Orchid	Signboard
(1)	A	B	C
(2)	B	C	A
(3)	C	B	A
(4)	B	A	C

4. The following table shows the characteristics of four things.

	Dog	Clock	Robot	Coconut tree
				
Can die	Yes	No	Yes	Yes
Needs air, food and water	Yes	No	No	Yes
Can move from one place to another on its own	Yes	Yes	Yes	No

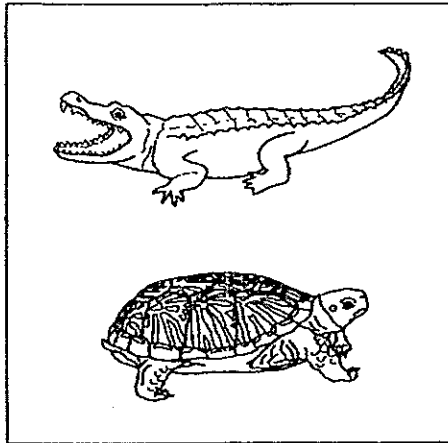
Which of the things in the table above are correctly described?

- (1) dog and clock only
- (2) clock and robot only
- (3) dog and coconut tree only
- (4) robot and coconut tree only

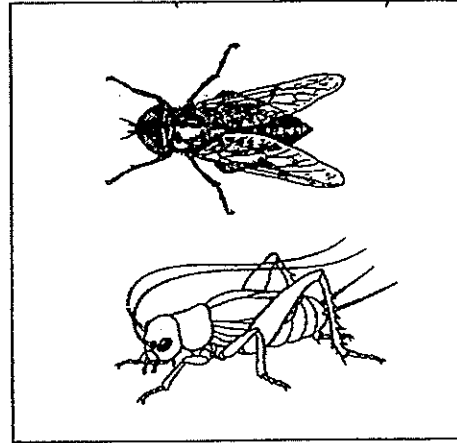
5. Which of the following pairs of living things are micro-organisms?

- (1) bacteria and moss
- (2) bacteria and yeast
- (3) mould and toadstool
- (4) mould and bracket fungus

6. Study the pictures below.



Group X



Group Y

Which of the following are the most suitable headings for Group X and Group Y?

	Group X	Group Y
(1)	Amphibian	Insect
(2)	Reptile	Amphibian
(3)	Insect	Reptile
(4)	Reptile	Insect

7. Four children were made to write down what they have learnt about bacteria.

Alicia	Bacteria can be useful to us.
Ben	Bacteria can make their own food.
Carol	Bacteria can reproduce by laying eggs.
David	Bacteria can be observed through a microscope.

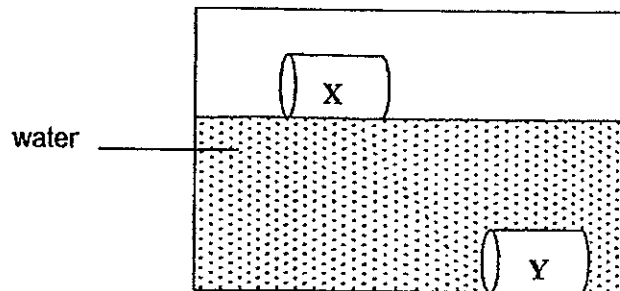
Which of the following children wrote the correct characteristics about bacteria?

- (1) Alicia and Ben only
- (2) Ben and Carol only
- (3) Carol and David only
- (4) Alicia and David only

8. Which one of the following materials does **not** match the object that it can be made into?

	Materials	Objects
(1)	silk	clothes
(2)	rubber	boots
(3)	ceramic	doors
(4)	wood	spoons

9. Shafiq conducted an experiment using two materials (X and Y). He dropped each material into a large container of water. The diagram below shows the position of the materials in the container after ten minutes.



What could material X be?

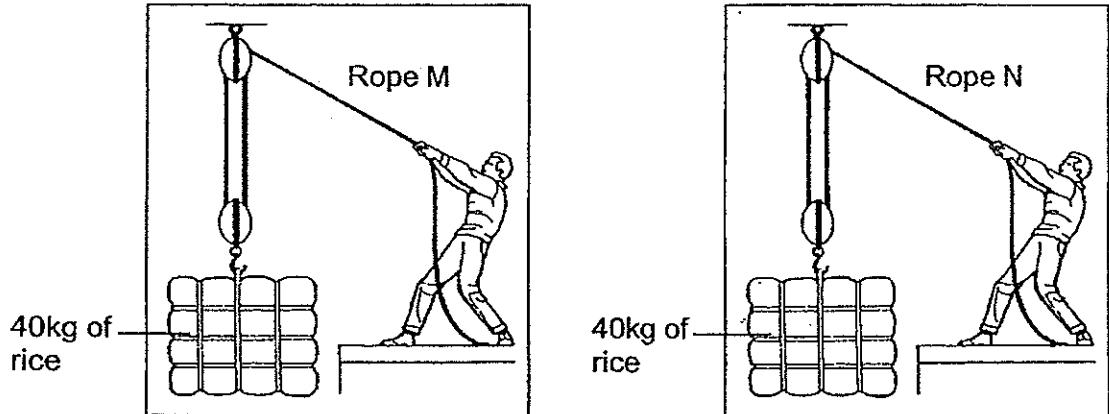
- (1) wood
 (2) metal
 (3) glass
 (4) fabric
10. Raj compared the physical properties of four different objects (A, B, C and D) from his school bag.

Object	Physical properties		
	Strong	Waterproof	Flexible
A	Yes	Yes	Yes
B	Yes	No	No
C	No	Yes	No
D	No	No	Yes

Based on the information in the table above, which object (A, B, C or D) is most likely an exercise book?

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

11. Mr Lee conducted an experiment using two ropes, M and N, that were made from different materials. 40kg of rice was hung from the two ropes as shown in the diagram below.

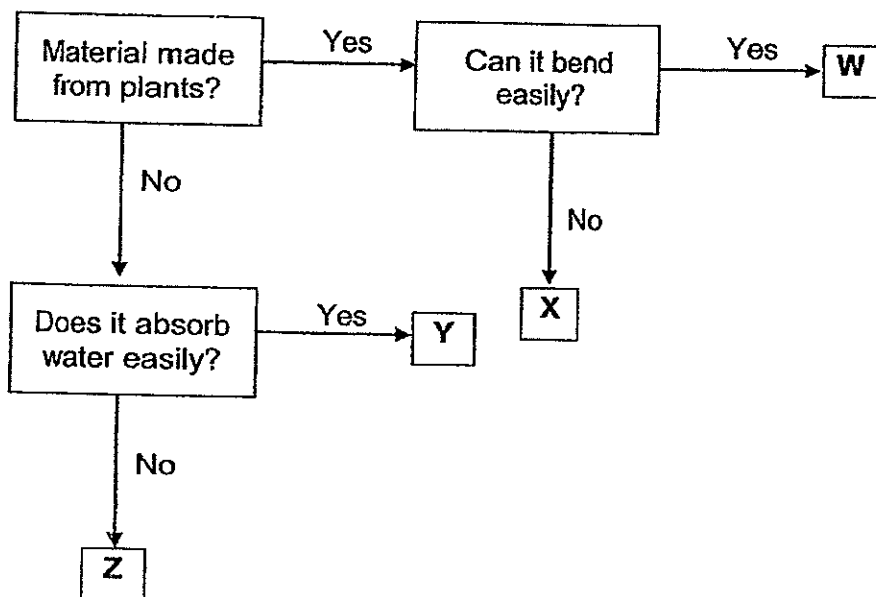


When Mr Lee tried to lift the rice, Rope N snapped while Rope M was still able to hold the 40kg of rice.

Based on the observation, which one of the following statement is correct?

- (1) Rope M is longer than Rope N.
- (2) Rope M is thinner than Rope N.
- (3) Rope M is stronger than Rope N.
- (4) Rope M is more flexible than Rope N.

12. The diagram below shows the properties of different materials which are used to make objects W, X, Y and Z.



Which one of the following best represents the type of material used to make each object?

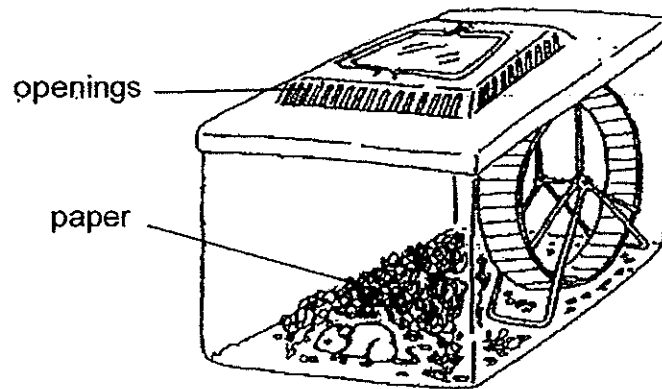
	W	X	Y	Z
(1)	Wood	Rubber	Paper	Metal
(2)	Cotton	Plastic	Wood	Metal
(3)	Rubber	Wood	Wool	Glass
(4)	Plastic	Wool	Cotton	Paper

13. Which of the following statements about living and non-living things are incorrect?

- A Living things can grow and change.
- B Non-living things cannot change their sizes.
- C Plants that are living in water need air to survive.
- D Fungi is not a living thing because it cannot make its own food.

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

14. Widjaya went on an overseas trip during the school holidays and left his pet hamster at home.



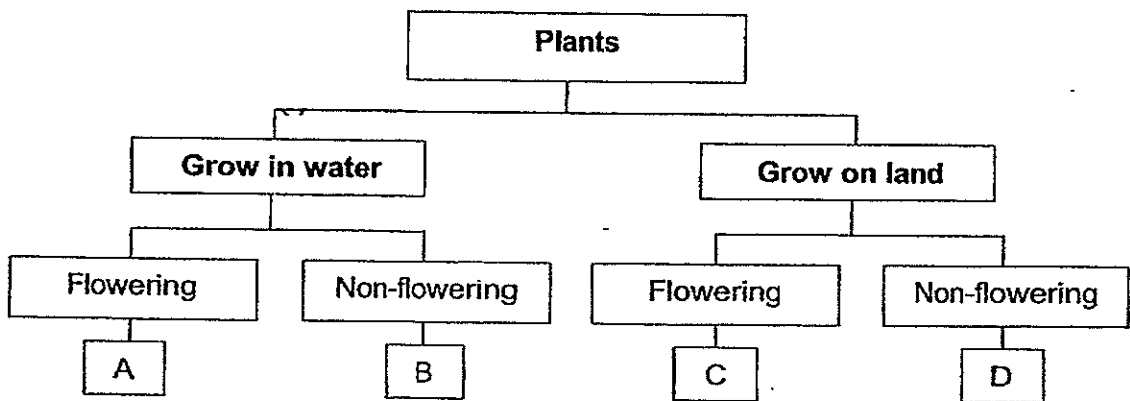
When Widjaya came back from his trip two weeks later, he discovered that his hamster had died. The hamster died because it does not have _____.

- A air
 - B food
 - C water
 - D warmth
- (1) A and D only
(2) B and C only
(3) A, B and C only
(4) A, B, C and D

15. The following table shows some characteristics of two plants, S and T.

	Plant S	Plant T
Does it grow in water?	Yes	No
Does it bear flowers?	No	Yes

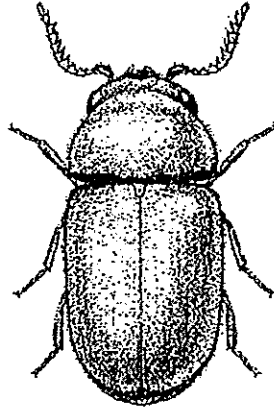
Use the classification chart to find Plant S and T.



Which groups (A, B, C or D) do Plant S and Plant T belong to?

	Plant S	Plant T
(1)	A	B
(2)	D	C
(3)	A	D
(4)	B	C

16. Siti was given the following animal and she wrote down some observations about the animal.



Which one of the following observations can Siti use to identify which group of animals was she given?

- (1) It has hair.
 - (2) It has wings.
 - (3) It has 3 body parts.
 - (4) It has more than 4 legs.
17. Shirley observed Animal X during her learning journey and gave the following description about Animal X.

“Animal X is a small animal that can swim in water.
Animal X feeds on insects when it moved onto land.
Animal X can breathe through its moist skin and lungs”

Which one of the following groups of animals does Organism X belong to?

- (1) fish
- (2) insects
- (3) mammals
- (4) amphibians

18. Study the table below.

Group 1	Group 2
bee	dove
butterfly	parrot
mosquito	pigeon

The animals in the two groups above can be classified according to _____.

- A the way they reproduce
 B the way they move about
 C the type of outer covering
 D the number of legs they have

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

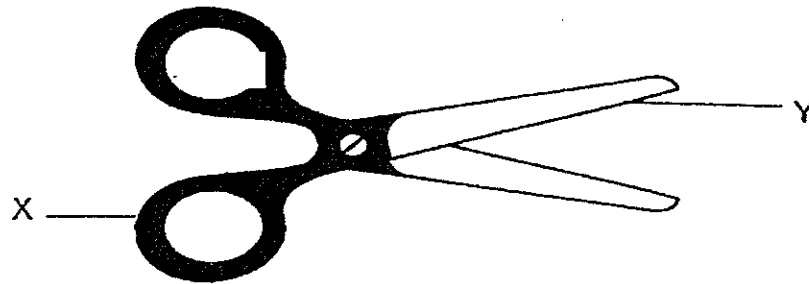
19. The table below shows the characteristics of four living things K, L, M and N. A tick (✓) shows that the living thing has the characteristic.

Living thing	Number of legs			Can fly	Make its own food
	2	4	6		
K	✓			✓	
L					✓
M			✓	✓	
N					

Which living things could K, L, M and N be?

	K	L	M	N
(1)	Eagle	Tree	Cockroach	Bacteria
(2)	Ostrich	Fern	Housefly	Mould
(3)	Penguin	Moss	Grasshopper	Mushroom
(4)	Hawk	Yeast	Beetle	Grass

20. The picture below shows a pair of scissors.



What properties of Materials X and Y make them suitable for making the parts of the scissors?

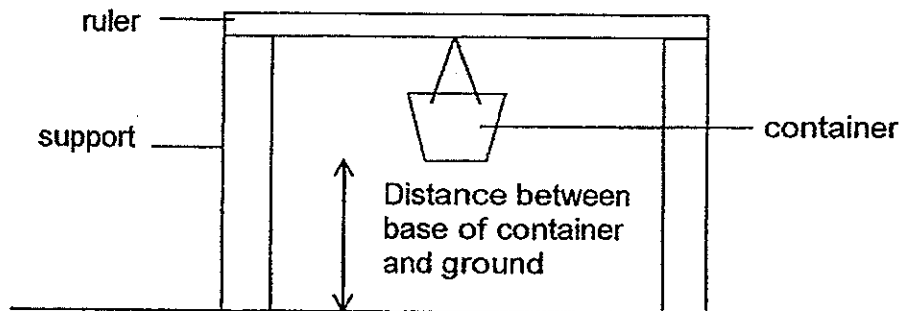
	X	Y
(1)	stiff and sharp	waterproof and light
(2)	shiny and light	sharp and flexible
(3)	stiff and strong	strong and sharp
(4)	flexible and waterproof	light and shiny

21. Mrs Lee wants to make a blouse for herself. Based on the table below, which is the most suitable material for making the blouse.

	Material A	Material B	Material C	Material D
Flexibility	Flexible	Stiff	Flexible	Stiff
Transparency	Allows most light to pass through	Allows some light to pass through	Does not allow light to pass through	Does not allow light to pass through
Waterproof	Absorbs water	Does not absorb water	Absorbs water	Does not absorb water

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

22. An experiment was carried out to test the flexibility of 4 similar rulers that were made of different materials (E, F, G and H). An empty container was hung from the midpoint of the ruler as shown below. The distance between the base of the container and the ground was measured and recorded before 50 marbles were added into the container and after the marbles were added.



Material	Distance between base of container and ground before the marbles were added (cm)	Distance between base of container and ground after the marbles were added (cm)
E	20	20
F	20	0
G	20	15
H	20	5

Based on the above experiment, which is the most suitable material for making a dining table?

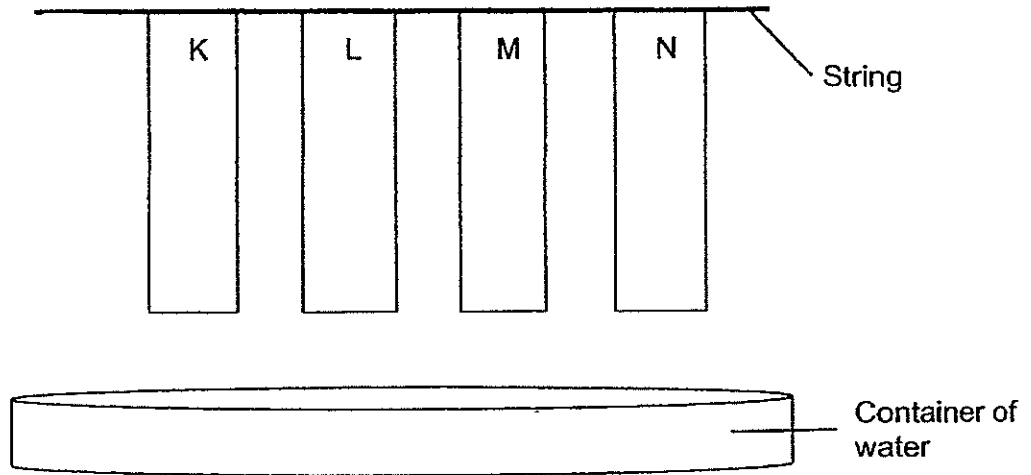
- (1) E
 (2) F
 (3) G
 (4) H
23. The properties of three objects were observed and recorded as follows.

Objects	Properties		
	Flexible	Natural material	X
Bicycle tyre	Yes	Yes	Yes
Iron rod	No	Yes	Yes
Styrofoam cup	No	No	Yes

X is a property of material. What is X?

- (1) Strong
 (2) Waterproof
 (3) Able to float on water
 (4) Allows light to pass through

24. 4 similar strips of material K, L, M and N were held onto a string and hung over a container that was filled with water.



The materials were lowered into the container of water. At the end of 10 minutes, the length of each strip that was wet was measured and recorded in the table below.

Material	Length of strip that was wet (cm)
K	5
L	3
M	0
N	4

Based on the information from the table, which would be the **least suitable** material for making an umbrella?

- (1) K
- (2) L
- (3) M
- (4) N



NAN HUA PRIMARY SCHOOL
SEMESTRAL ASSESSMENT 1 – 2014
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 : 16 May 2014

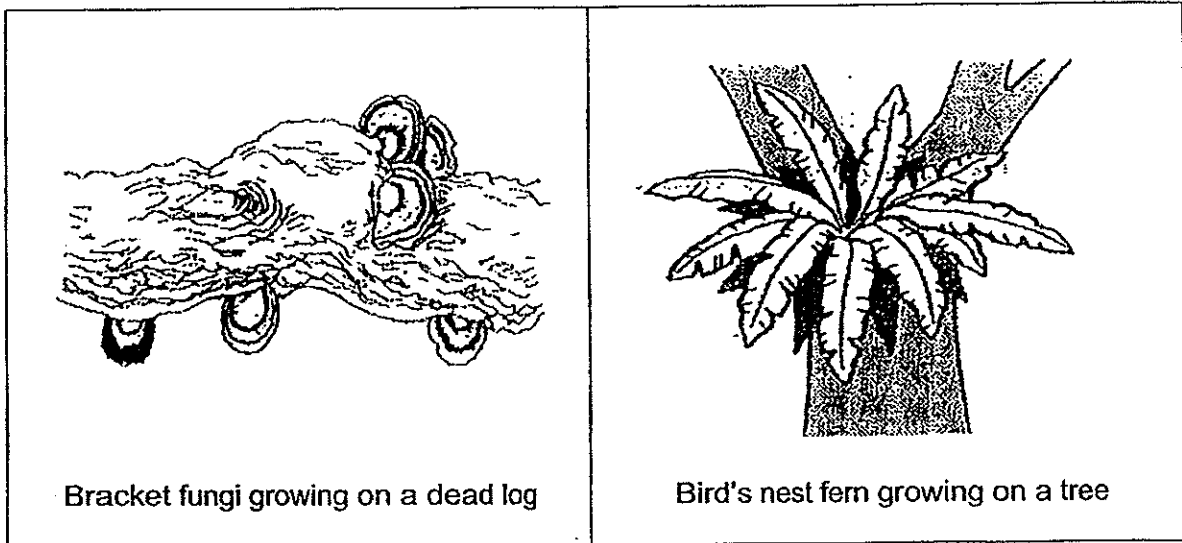
Parent's Signature: _____

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. The diagrams below show two living things found in the garden.



a. How do the living things in the diagrams above obtain food? [1]

Bracket fungi : _____

Bird's nest fern: _____

b. How do the living things in the diagrams above reproduce? [1]

Bracket fungi : _____

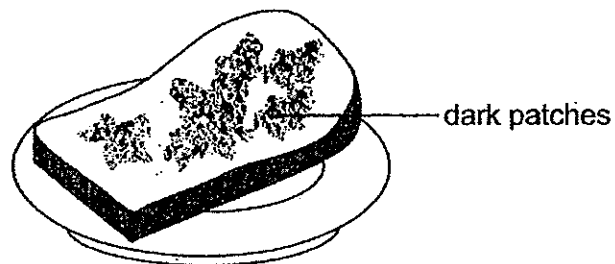
Bird's nest fern: _____

Score	2
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26. Three slices of bread are each placed in a box with the following conditions. A tick (✓) represents that the condition is present.

Slice	Conditions	
	Bright	Dry
A		
B	✓	✓
C		✓

- a. Which slice of bread would have dark patches on it as shown below after five days? Explain what the dark patches are and why they appear on the slice of bread? [1]



Slice: _____

Explanation: _____


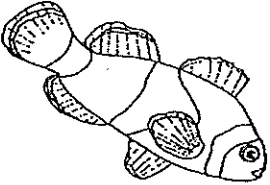
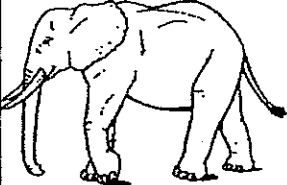

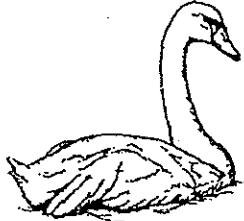

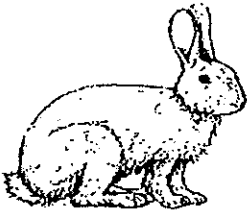

- b. Fungi can be both useful or harmful to humans.
State one way in which it is useful and one way in which it is harmful. [2]

(i) Useful: _____

(ii) Harmful: _____

Score	3
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27. Refer to the diagrams of animals below.

Group W	Group X	Group Y	Group Z
 Parrot	 Clownfish	 Elephant	 Butterfly
 Swan	 Crocodile	 Rabbit	 Bee

a. The animals have been grouped according to their type of outer coverings. Write suitable headings for Groups W, X, Y and Z. [2]

Group W: _____

Group X: _____

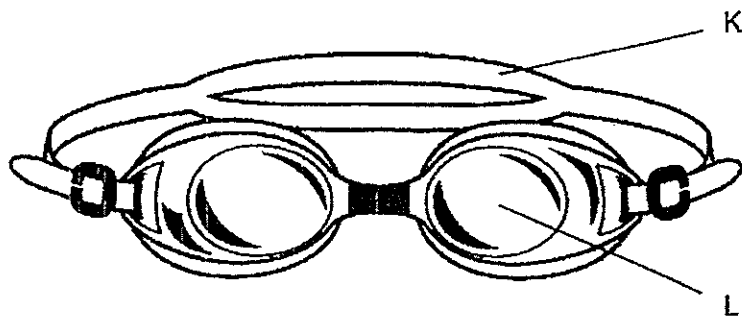
Group Y: _____

Group Z: _____

b. Based on the diagrams above, what do the animals in Group W and Group Z have in common? (Do not mention shape, size, colour and pattern) [1]

c. Based on the diagrams above, state one difference between the characteristics of the two animals (clownfish and crocodile) in Group X. (Do not mention shape, size, colour and pattern) [1]

28. The following diagram shows a pair of swimming goggles. K and L are made of different materials.



- a. State the type of material that are suitable for making K and L. [1]

K: _____

L: _____

- b. Explain how the physical property of materials K and L makes them suitable for the swimming goggles. [2]

K: _____

L: _____

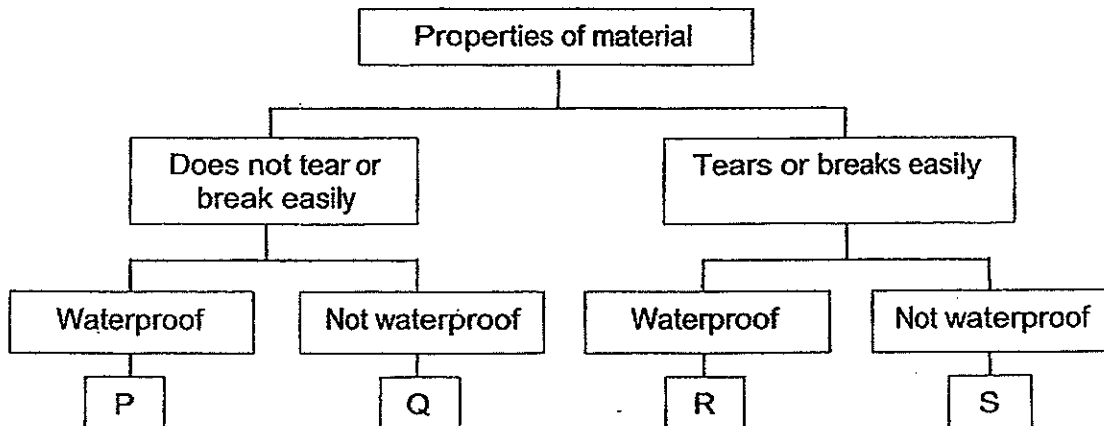
- c. Which material (K or L) would be suitable for making the following items? [1]

Car tyres: Material _____

Balloons: Material _____

Score	4
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29. Study the classification chart below.



a. State one difference between Group Q and Group S. [1]

b. Which group of material (P, Q, R or S) would you choose to make a waterbottle? Explain your answer. [1]

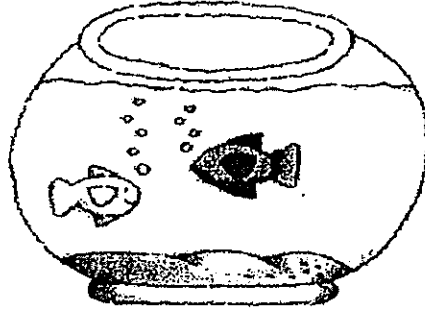
c. Shirley decided to use the classification chart above to group the objects she found in the classroom. The table below shows how the objects were classified.

P	Q	R	S
Table	Curtain	Pen	Newspaper

Which object has been grouped **incorrectly**? Explain your answer. [1]

Score	3
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30. Chris bought two fishes and placed them in a fish bowl as shown below.



After three days, he observed that the fishes swam close to the surface of the water and were not as active as before.

- a. Suggest a possible reason for Chris' observation. [1]

- b. Without changing the fish bowl, state two things that Chris could do to ensure that the fishes remain healthy. [2]

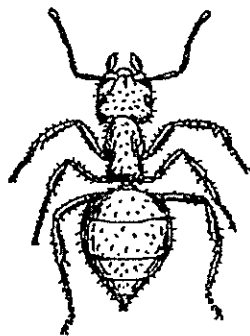
(i) _____

(ii) _____

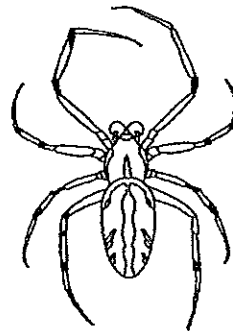
- c. When Chris tried to touch the fishes that were swimming close to the surface of the water, the fishes swam away. What characteristic of living things is the fishes displaying? [1]

Score	4
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31. Refer to the diagrams of Animals X and Animal Y and answer the following questions.



Animal X



Animal Y

a. Based on the diagrams above, state two differences between Animals X and Animal Y. (Do not mention shape, size, colour and pattern) [2]

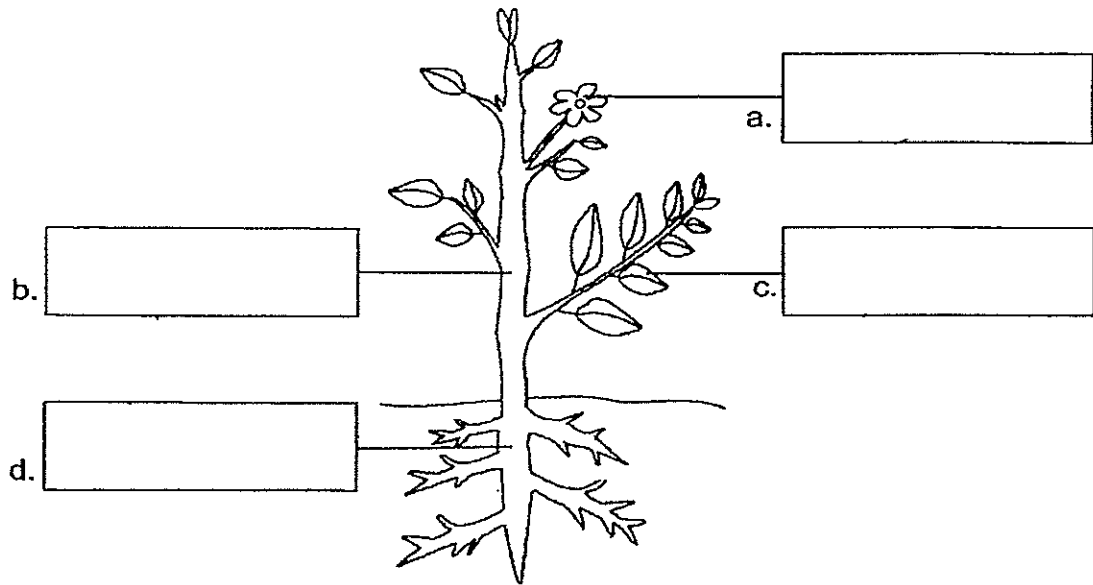
(i) _____

(ii) _____

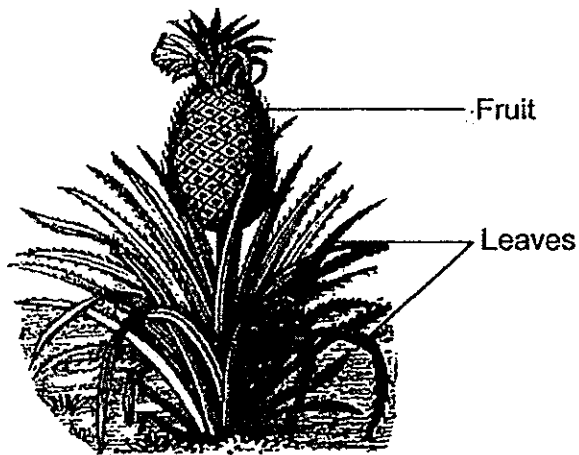
b. State how Animal X reproduce. [1]

Score	3
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32. Name the parts (a, b, c and d) of the plant shown below. Write your answer in the boxes provided. [2]



Study the diagram below carefully.



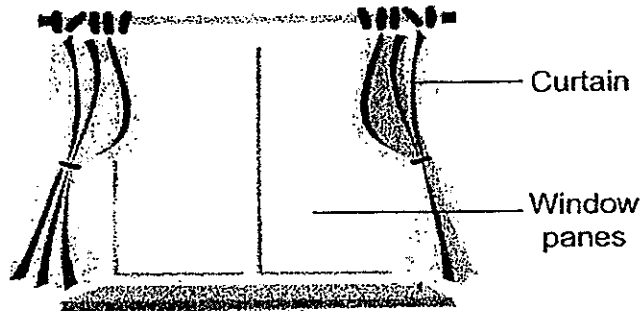
- e. Is the plant shown above a flowering or non-flowering plant. Explain your answer. [1]

Score	3
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33. Lynn likes to observe the stars from her bedroom window at night. Whenever it rains, she closes the windows quickly so that her room would not be wet. Lynn does not like the morning sun to disturb her sleep so she closes the curtains before she goes to bed. One day, she decided to conduct an experiment to find out the properties of materials K, L and M found in her bedroom. She recorded her findings in the table below.

Property of material	Material K	Material L	Material M
Transparency	Allows light to pass through	Does not allow light to pass through	Allows light to pass through
Waterproof	Absorbs water	Absorbs water	Does not absorb water
Flexibility	Flexible	Flexible	Stiff

- a. Using the information given in the table above, state which material (K, L or M) is used to make the window panes found in her bedroom. Give two reasons why the material is used. [2]



Material: _____

Reason #1: _____

Reason #2: _____

- b. Using the information given in the table above, state which material is used to make the curtains shown above. Give two reasons why the material is used. [2]

Material: _____

Reason #1: _____

Reason #2: _____

34. Four pieces of similar sized materials, W, X, Y and Z were weighed individually to find out their masses at the start of the experiment. The materials W, X, Y and Z were placed into four similar containers with equal amount of water. The materials in each container were completely covered with water. After five minutes, each piece of material was weighed again. The measurements were recorded in the table below.

Material	Mass at the start of the experiment (g)	Mass after five minutes (g)
W	12	19
X	16	19
Y	8	8
Z	20	21

- a. Based on the table above, which material (W, X, Y or Z) is the most suitable material for making a bath towel? Explain your answer. [1]

- b. Based on the table above, which material (W, X, Y or Z) is a plastic sheet? Explain your answer. [1]

End of paper

Score	2
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Year: 2014

Level: Primary 3

School: Nan Hua Primary School

Subject: Science

Semester: SA1

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

Q25) a) Bracket fungi: It feeds on the dead log.

Bird's nest fern: It makes its own food.

b) Bracket fungi: It reproduces from spores.

Bird's nest fern: It reproduces from spores.

Q26) a) A. The dark patches are mould and the black patches appear on the bread as the bread is wet and is placed in a dark place.

b) i) Useful fungi are edible.

ii) Harmful fungi can be poisonous and can harm humans if they are eaten.

Q27) a) Group W: Have feathers.

Group X: Have scales.

Group Y: Have hair.

Group Z: Have wings.

b) They have wings.

c) The clownfish has fins while the crocodile has feet.

Q28)a) K: Rubber L: Plastic

b) K: It must be elastic so it can stretch to fit people's head to wear the goggles.

L: It must be transparent so that people can see underwater.

c) Car tyres: Material K

Balloons: Material L

Q29) a) Group Q does not tear or break easily but group S tears and breaks easily.

b) Material P. It is waterproof and does not tear or break easily.

c) Object R. A pen cannot tear or break easily.

Q30)a) There was not enough air in the fish bowl.

b) i) Put in an air pump.

ii) Give the fish food daily.

c) Living things respond to changes around them.

Q31) a)i) Animal X has three body parts but animal Y has two body parts.

ii) Animals X has six legs but animal Y has eight legs.

b) Animal X reproduce from eggs.

Q32) a) Flowers

b) Stems

c) Leaves

d) Roots

e) The plant above is a flowering plant. Before you have a fruit, you will always have a flower first.

Q33)a) Material M

Reason 1: Material M allows light to pass through so Lynn can see the stars.

Reason 2: Material M is waterproof so the rain will not come into Lynn's house.

b) Material L

Reason 1: Material L does not allow light to pass through so it helps to block out the sunlight in Lynn's house.

Reason 2: Material L is flexible so that the curtains can be closed and opened easily.

Q34) a) Material W. The mass of material W increased the most so it absorbed the most water.

b) Material Y. There is no change in the mass of material Y because plastic does not absorb water.