



**NANYANG PRIMARY SCHOOL**

**PRIMARY 3 SCIENCE**

**SEMESTRAL ASSESSMENT 1  
2019**

**BOOKLET A**

**Date : 15<sup>th</sup> May 2019**

**Duration : 1 h 20 min**

**Name : \_\_\_\_\_ (     )**

**Class: Primary 3 (     )**

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.  
FOLLOW ALL INSTRUCTIONS CAREFULLY.**

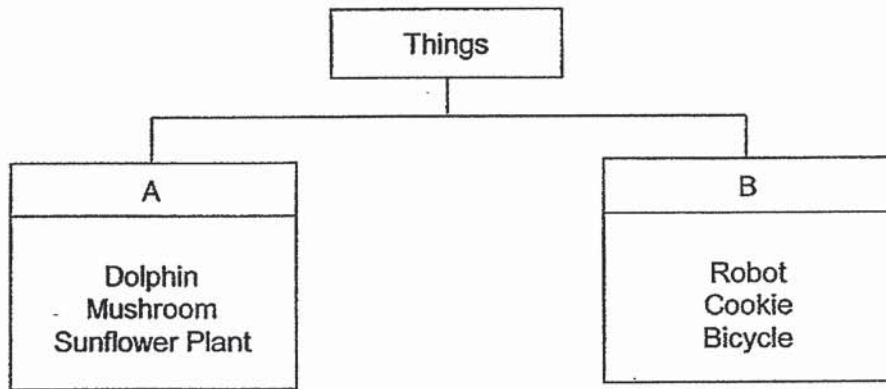
**Booklet A consists of 14 printed pages including this cover page.**



**Section A**

For each question from 1 to 24, four options are given. One of them is the correct answer. Indicate your choice in this booklet and shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet provided.

1. The things below are classified based on the characteristics, A and B.



Which one of the following correctly represents characteristics A and B?

	A	B
(1)	can grow	cannot grow
(2)	can make their own food	cannot make their own food
(3)	does not need air to survive	needs air to survive
(4)	can move freely from one place to another	cannot move freely from one place to another

2. Elsie observed the following thing for 2 weeks.



Based only on her observations, she concluded that it is a non-living thing.

Which of the following are the observations that she had most likely made?

- A It barks on its own.
- B It does not eat food.
- C It does not grow in size.
- D It moves from one place to another.

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

3. Ryan saw an animal on the ground. He touched it gently and observed that it curled up as shown below.



Before being touched

After being touched

Which one of the following characteristics of living things is shown above?

- (1) Living things can grow.
  - (2) Living things can reproduce.
  - (3) Living things need air, food and water to survive.
  - (4) Living things can respond to changes around them.
4. Rizal observed 2 different types of plants, P and Q, for 5 months. He recorded his observations at the end of each month in the table below.

Months	Number of flowers	
	Plant P	Plant Q
1	0	4
2	3	3
3	2	0
4	0	0
5	0	1

Based on his observation, which one of the following correctly describes plants P and Q?

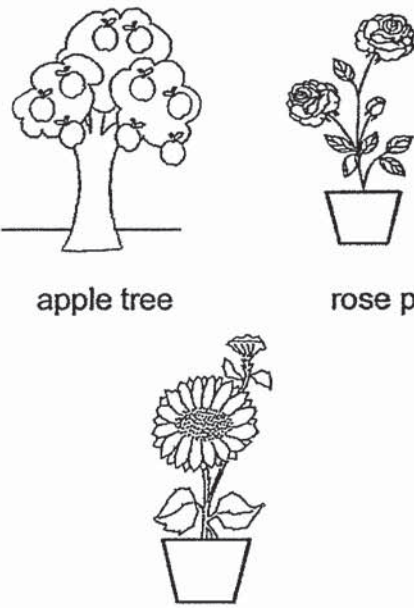
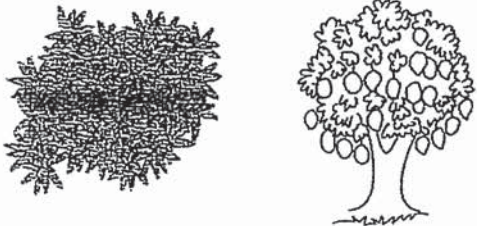
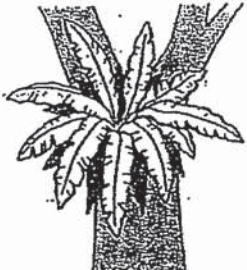
	P	Q
(1)	produce fruits	does not produce fruits
(2)	produce spores	does not produce spores
(3)	reproduce by seeds	reproduce by seeds
(4)	reproduce by spores	reproduce by seeds

5. Which of the following statements about plants are **incorrect**?

- A All plants have roots.
- B All plants have fruits.
- C All plants have leaves.
- D All plants reproduce by spores.

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

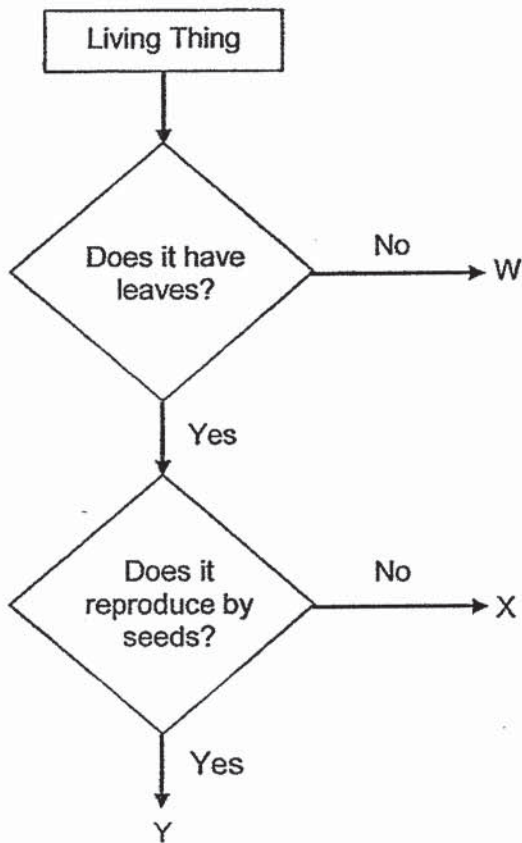
6. Study the two groups of plants below carefully.

Flowering Plants	Non-flowering Plants
 <p>apple tree</p> <p>rose plant</p> <p>sunflower plant</p>	 <p>moss</p> <p>mango tree</p>  <p>birds' nest fern</p>

Which one of the following plants has been classified **wrongly**?

- (1) moss
- (2) apple tree
- (3) rose plant
- (4) mango tree

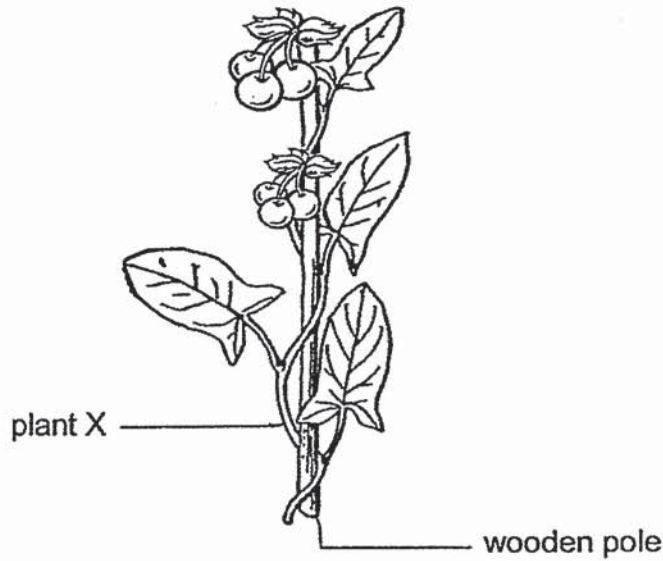
7. Study the flowchart below carefully.



Which one of the following most likely represents living thing X?

- (1) moss
- (2) apple tree
- (3) lemon tree
- (4) orange tree

8. The diagram below shows plant X.



Ali, Belinda, Carrie and Dinesh made the following statements about plant X.

- Ali : It has leaves.
- Belinda : It has no stem.
- Carrie : It reproduces by seeds.
- Dinesh : It is a non-flowering plant.

Who had made the correct statements?

- (1) Ali and Carrie only
- (2) Ali and Belinda only
- (3) Carrie and Dinesh only
- (4) Belinda and Dinesh only

9. Alysha compared the drawings of 3 different animals as shown below.



Which characteristic below can be observed in the drawings above?

- (1) They all can fly.
- (2) They all have wings.
- (3) They all live on land.
- (4) They all give birth to their young alive.

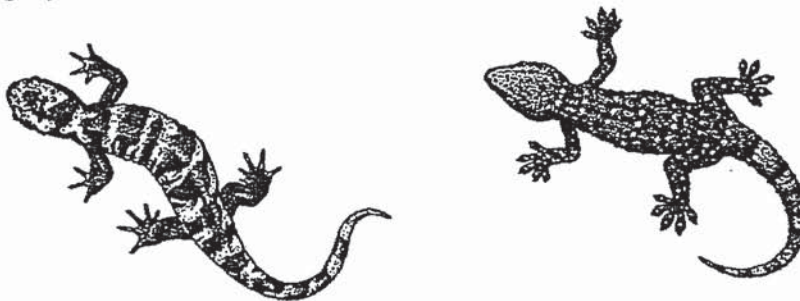
10. Bailey observed several animals at the Mandai Zoo. Then he classified the animals as shown below.

X	Y	Z
Dog	Goldfish	Frog
Lion	Guppy	Toad
Elephant	Salmon	Salamander

Based on his classification, which of the following are the correct headings for X, Y and Z?

	X	Y	Z
(1)	Lives on land and in water	Lives underwater	Lives on land
(2)	Lives on land	Live on land and in water	Lives underwater
(3)	Has outer covering of hair	Has outer covering of scales	Has moist skin
(4)	Has outer covering of hair	Has outer covering of feathers	Has moist skin

11. Caeden observed 2 similar looking creatures at the Punggol River. Both creatures laid on a log by the river bank.



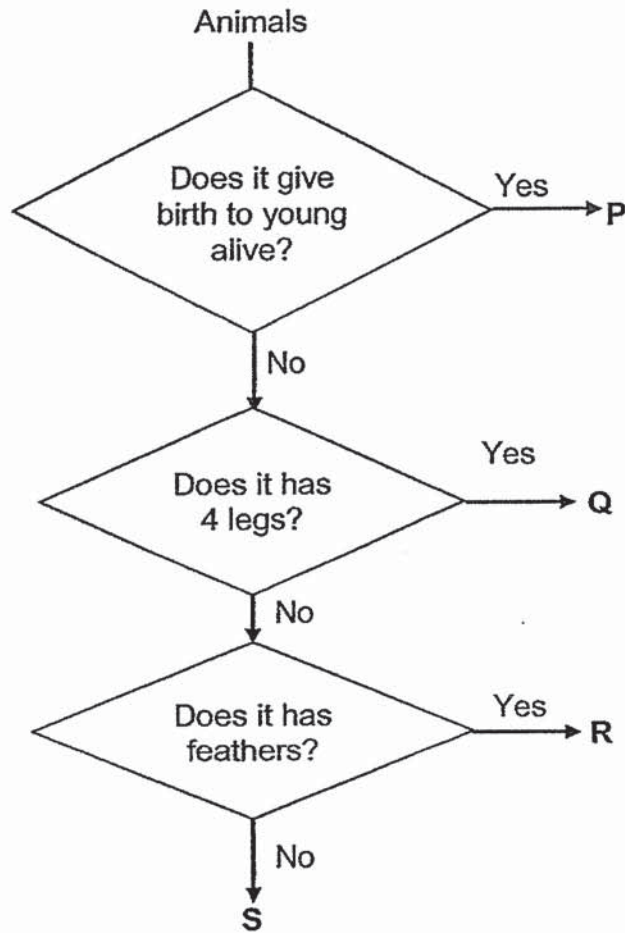
He observed both creatures for a period of time and realised that only one of them was an amphibian.

What characteristic of amphibians allowed Caeden to make this conclusion?

- (1) Amphibians have a tail.
- (2) Amphibians have four legs.
- (3) Amphibians have moist skin.
- (4) Amphibians have striped body.



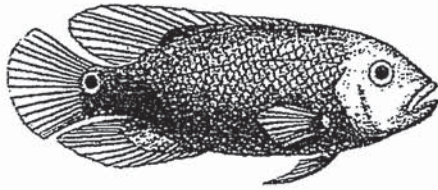
12. Dani told his teacher that he had observed 4 animals at the Botanic Gardens and had drawn the following flowchart to identify them.



Which of the following animals is a bird?

- (1) P
- (2) Q
- (3) R
- (4) S

13. The diagram below shows 2 types of animals.



Fish X



Mammal Y

Which of the following statements about the two animals above are **incorrect**?

- A Both live in water.
- B Both reproduce by laying eggs.
- C Both have an outer covering of scales.

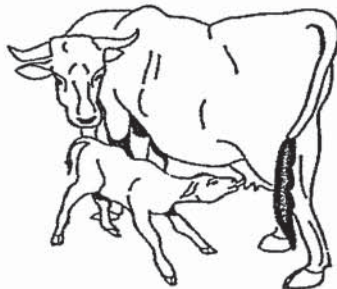
- (1) A only
- (2) B only
- (3) A and C only
- (4) B and C only

14. Eli observed an animal at the Bukit Timah Nature Reserve. He concluded that it was an insect.

Which one of the following characteristic did Eli most likely observe to conclude that it is an insect?

- (1) The animal had 2 legs.
- (2) The animal had a pair of wings.
- (3) The animal could crawl upside down.
- (4) The animal had a hard outer body covering.

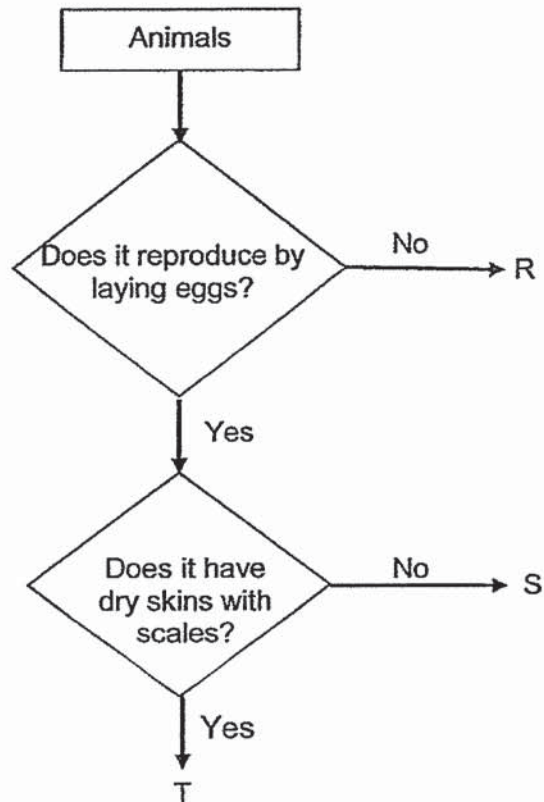
15. The drawing below shows a mammal and a newborn young.



What characteristic of mammals is shown above?

- (1) Mammals live on land.
- (2) Mammals suckle their young.
- (3) Mammals breathe through their lungs.
- (4) Mammals give birth to their young alive.

16. Frederick studied 3 different animals and came up with the flowchart below.



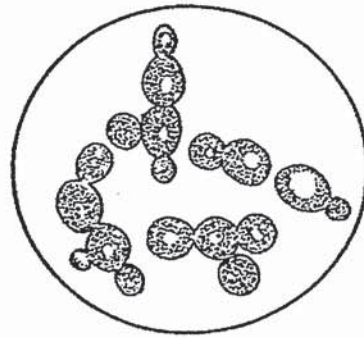
Based on his flowchart, which of his statements below is **true**?

- (1) R can only be a fish.
- (2) S can only be a bird.
- (3) S can only be a reptile.
- (4) T can only be a reptile.

17. The diagram below shows 2 living things.



mushrooms



yeast (under the microscope)

Which statement(s) below correctly identifies the similarities between them?

- A Both are micro-organisms.
- B Both reproduce by spores.
- C Both feed on other living things, dead or alive.

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

18. Which of the following statement(s) about bacteria is/are true?

- A All bacteria are harmful.
- B All bacteria are the same size.
- C All bacteria make their own food.
- D All bacteria cannot be seen with our naked eye.

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



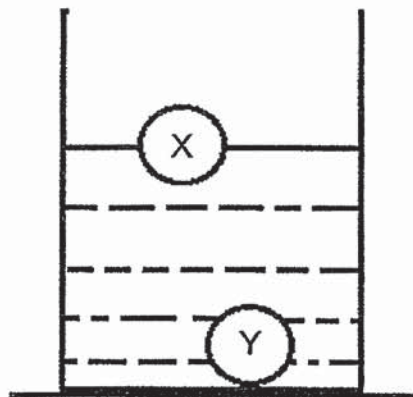
21. The table below shows the properties of 4 different materials.

Material	Properties
W	<ul style="list-style-type: none"> <li>Allows some light to pass through</li> <li>Waterproof</li> </ul>
X	<ul style="list-style-type: none"> <li>Allows most light to pass through</li> <li>Is not waterproof</li> </ul>
Y	<ul style="list-style-type: none"> <li>Does not allow light to pass through</li> <li>Waterproof</li> </ul>
Z	<ul style="list-style-type: none"> <li>Allows some light to pass through</li> <li>Is not waterproof</li> </ul>

Which material is most suitable for making toilet doors such that the person using the toilet cannot be seen at all?

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

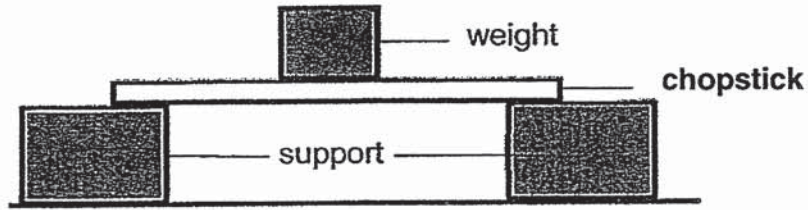
22. Danny placed 2 objects into a beaker of water as shown below. He observed that the position of object X and object Y were different.



Based on Danny's observation, which of the following correctly shows what object X and object Y could possibly be?

	X	Y
(1)	Metal ball	Wooden ball
(2)	Glass ball	Metal Ball
(3)	Wooden ball	Glass ball
(4)	Glass ball	Wooden ball

23. Jason placed weights on top of a pair of chopsticks as shown in the diagram below.

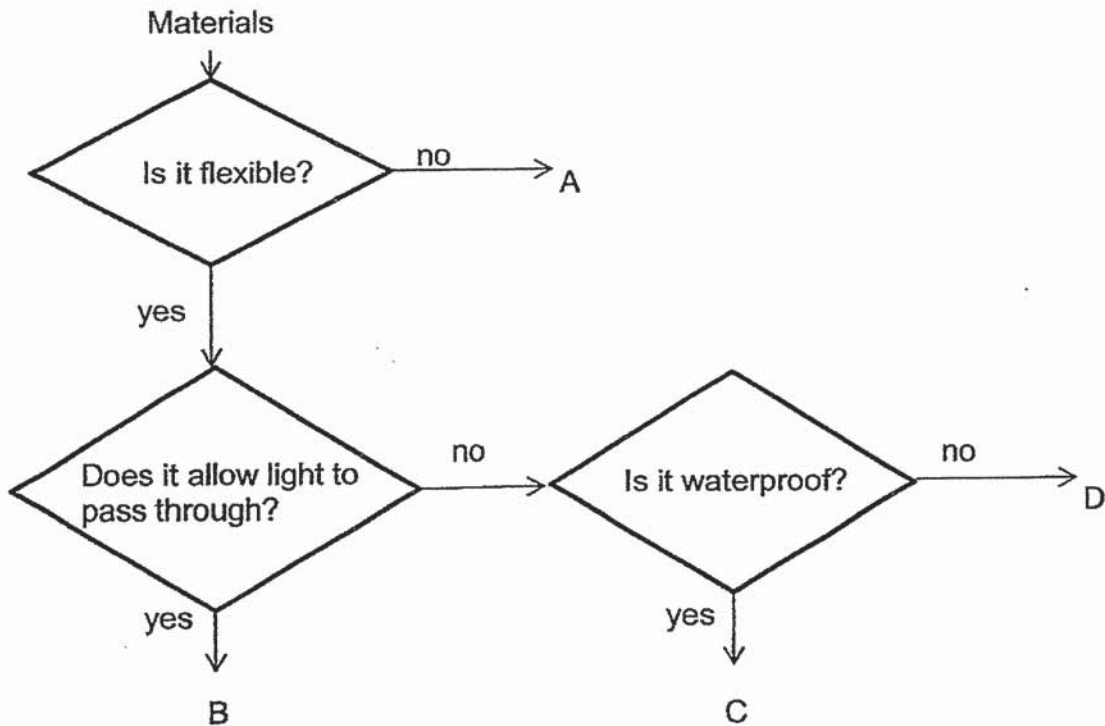


He continued to add weights until the chopsticks broke. He recorded the weight needed for the chopstick to break.

Which property of materials was Jason testing on the chopsticks?

- (1) Strength
- (2) Flexibility
- (3) Waterproof
- (4) Transparency

24. Study the flowchart below.



Which of the following best represents a basketball?

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

~ END OF BOOKLET A ~



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2019**

**BOOKLET B**

**Date : 15<sup>th</sup> May 2019**

**Duration : 1 h 20 min**

**Name : \_\_\_\_\_ (    )**

**Class: Primary 3 (    )**

**Marks Scored:**

<b>Booklet A:</b>		<b>48</b>
<b>Booklet B :</b>		<b>32</b>
<b>Total :</b>		<b>80</b>

**Any query on marks awarded should be raised by 24<sup>th</sup> May 2019. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.**

**Parent's signature: \_\_\_\_\_**

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**Booklet B consists of 12 printed pages including this cover page.**



**Section B (32 marks)**

Write your answers to questions 25 to 34 in the spaces provided.

25. Samantha kept 2 animals X in a cage for 5 months. She provided both animals X with the same amount of food and water every day. She recorded her observations of animals X in the table below. Samantha did not put in more animal X into the cage.

Months	Number of animal X
January	2
February	5
March	8
April	9
May	5

- (a) What characteristic of living things can be concluded from the results of her experiment? [1]

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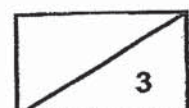
- (b)(i) What could have happened to some of animal X from April to May? [1]

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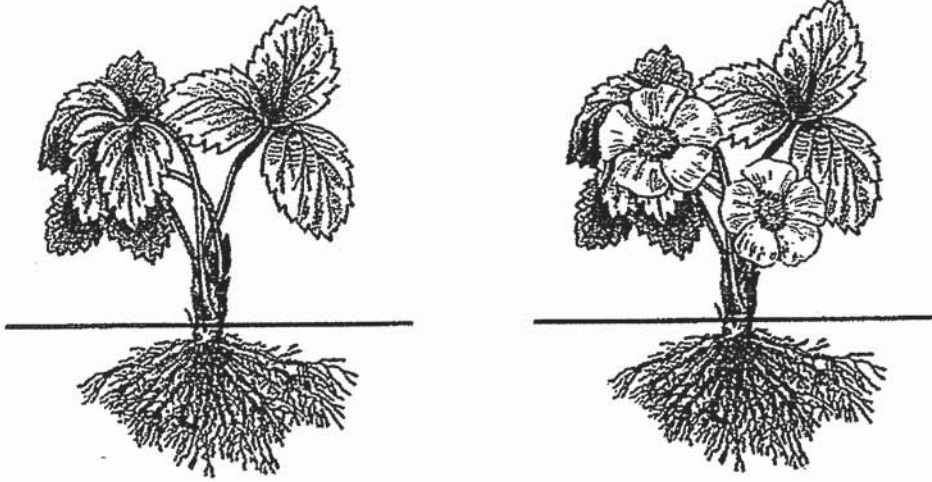
- (ii) Give a possible reason to explain the observation in b(i). [1]

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26. The diagram below shows plants A and B.



**Plant A**

**Plant B**

- (a) State one similarity in characteristic between plant A and plant B. [1]

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- (b) A student wrongly concluded that plant A is a non-flowering plant. Explain why his conclusion is wrong. [1]

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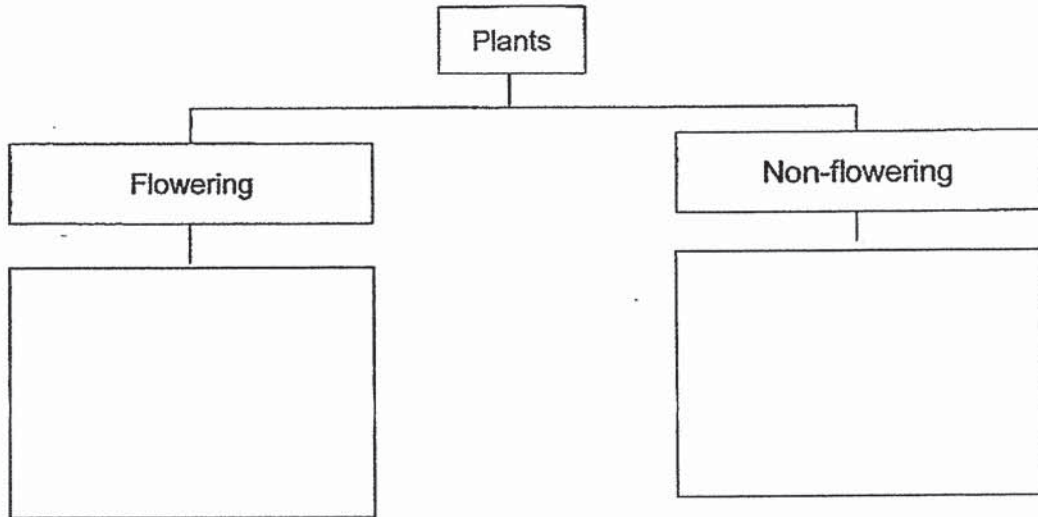
- (c) Based on the diagram above, state an example of a plant with a similar method of reproduction as plant B. [1]

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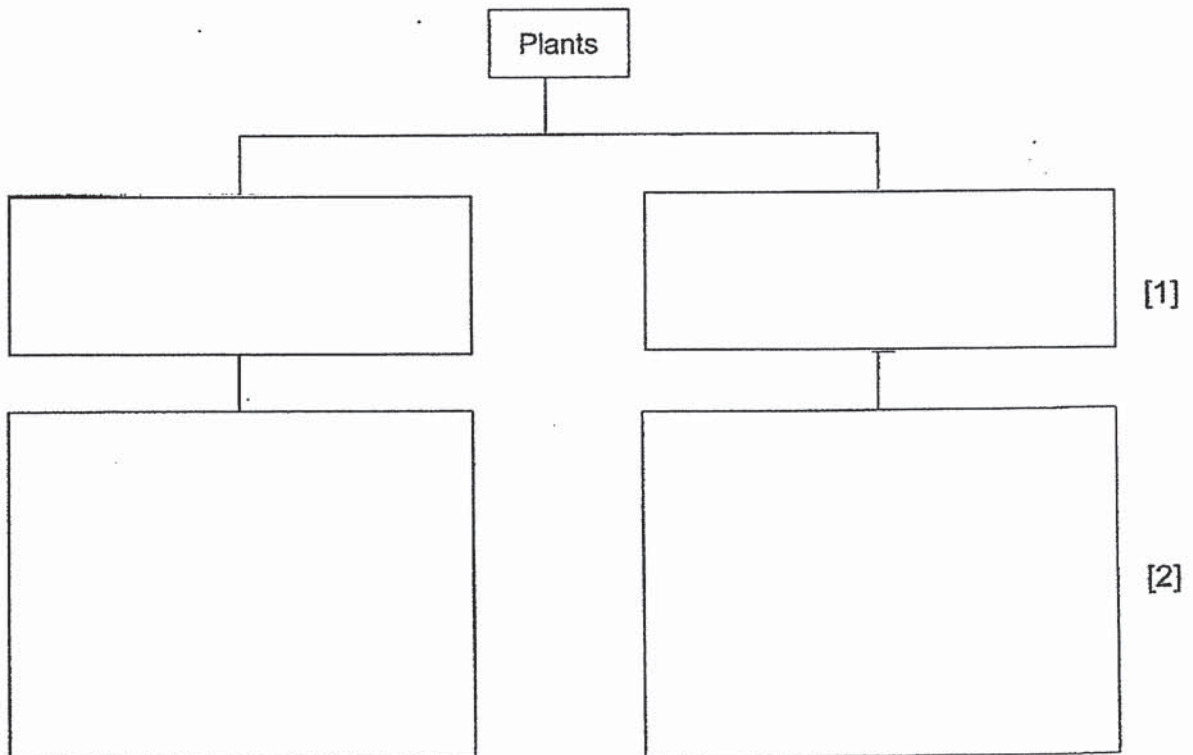
27. Study the table below carefully.

Characteristics	Plant M	Plant N	Plant O	Plant P
Has fruits	✓			✓
Grow in water	✓		✓	

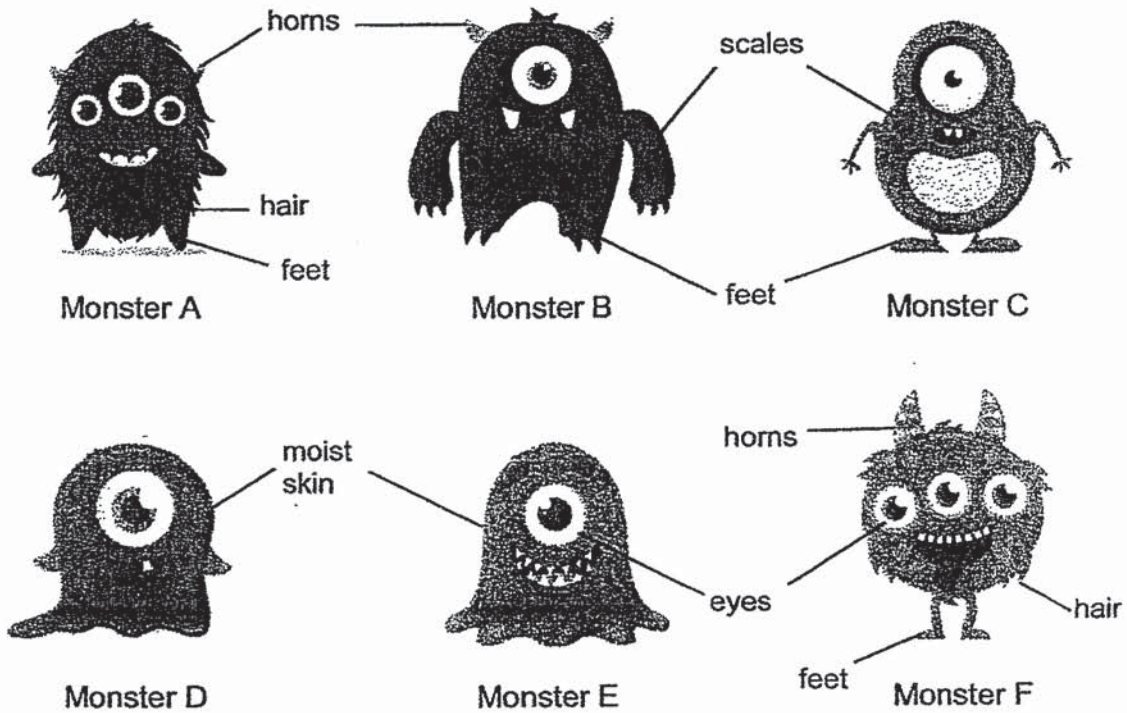
(a) Classify plants M, N, O and P into the classification chart below. [1]



(b) Classify plants, M, N, O and P again based on **another characteristic**. Give the classification chart a suitable heading. [1]



28. Agathe found some cards from a monster game and decided to classify the monsters based on their characteristics.



(a) Classify monsters A to F in the classification table below. [1]

Single eye	Triple eyes

Her brother, Adrian, suggested another way of classifying the monsters.

(b) State the suitable headings based on Adrian's classification below. [1]

Monster A Monster B Monster F	Monster C Monster D Monster E

(c) By observing the monster cards, Agathe concluded that Monster D and E have a similar characteristic as amphibians. State this characteristic. [1]

29. Hai Long observed the characteristics of four animals and recorded them in the table below.

Animal	Lives in water	Breathes through lungs	Have hair	Gives birth to young alive
A	Yes	Yes	Yes	Yes
B	Yes	No	No	No
C	No	Yes	Yes	Yes
D	No	Yes	No	No

- (a) State all the characteristics of Animal C. [1]

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- (b) How does Animal B reproduce? [1]

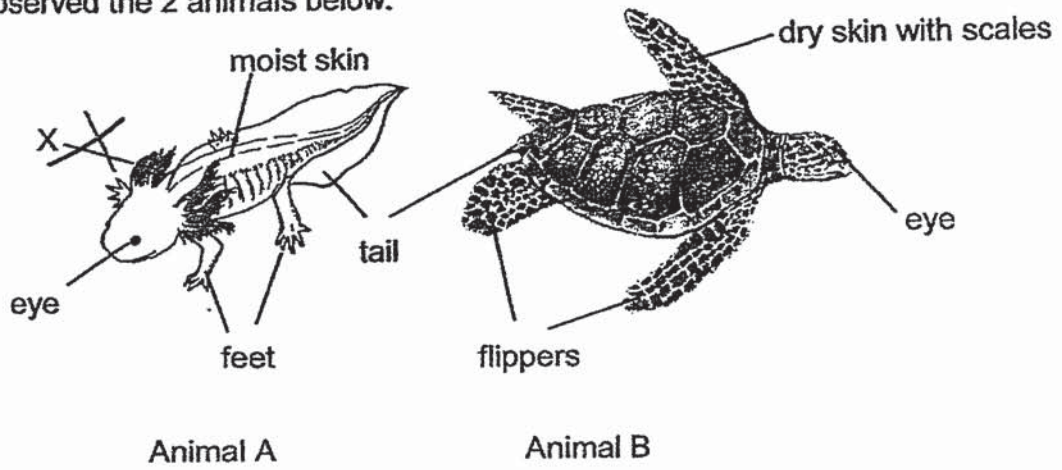
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- (c) Which animal could represent a dolphin? Explain your answer. [1]

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30. Ivy observed the 2 animals below.



(a) Which group of animals does animal A most likely belong to? [1]

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(b) Based on the diagram, state 1 difference between Animal A and Animal B. [2]

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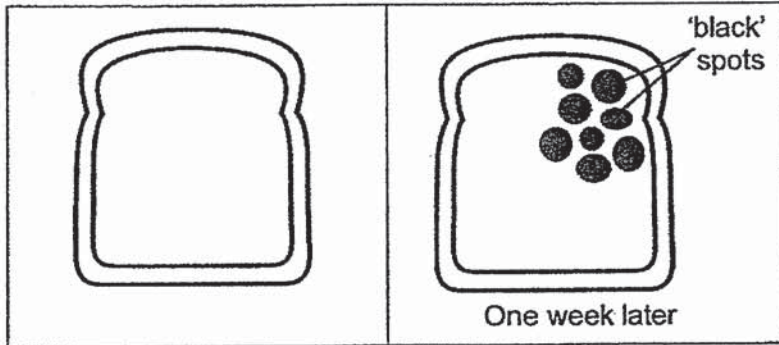
(c) State the function of the outer covering on Animal B? [1]

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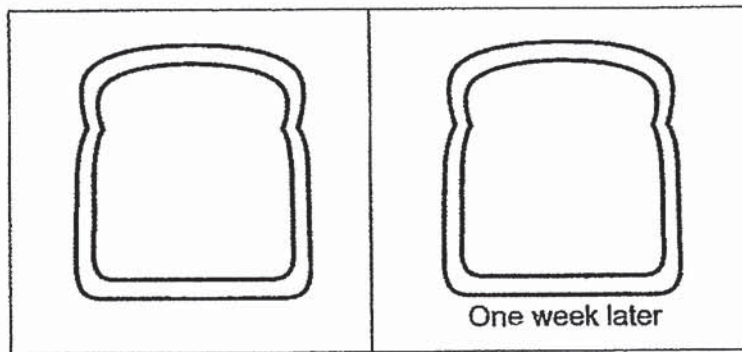
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31. Linda had 2 similar slices of bread, S and T. She toasted only bread S and added water only on bread T. She then placed each bread into 2 different sealed plastic bags for 1 week in a warm room.

The result of the experiment after 1 week is shown below. One of the breads had 'black' spots growing on it.



(i) Results for Bread \_\_\_\_\_



(ii) Results for Bread \_\_\_\_\_

(a) **Label** the breads, 'S' and 'T', above to identify which slice of bread was toasted and which slice of bread had water added at the beginning of the experiment. [1]

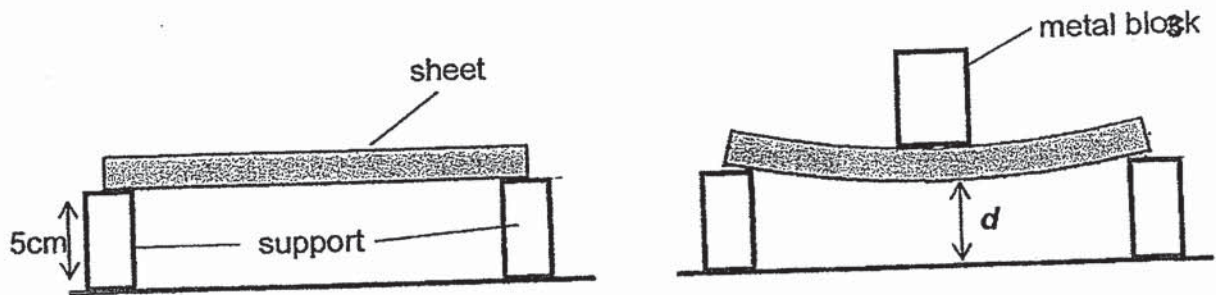
(b) What living things are the 'black' spots most likely to be? [1]

\_\_\_\_\_

(c) From the experiment, state the conditions needed for the "black spots" to grow. [1]

\_\_\_\_\_  
 \_\_\_\_\_

32. Michael carried out an experiment as shown below.



A sheet made of material X was placed on top of 2 supports. A metal block was then placed on top of the sheet and the distance,  $d$  was measured.

The experiment was repeated using sheets made of materials Y and Z. The result of the experiment is shown in the table below.

Material	$d(\text{cm})$
X	4
Y	3
Z	1

- (a) Based on the results of the experiment, which material, X, Y or Z, is the most flexible? [1]

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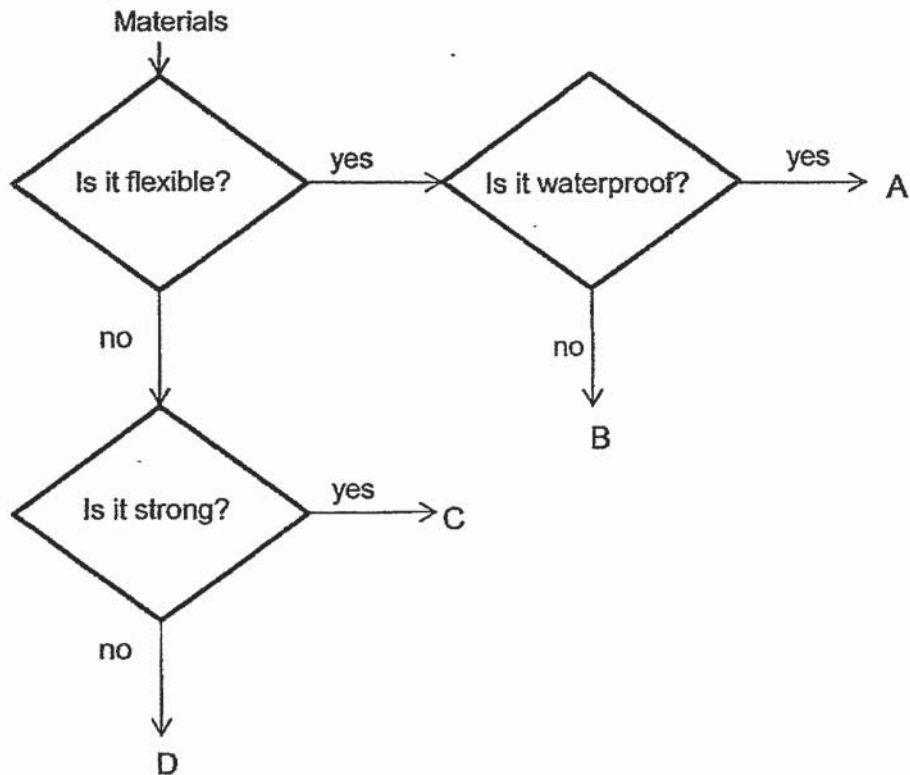
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- (b) Based on the results of the experiment, which material, X, Y or Z is most suitable to make a pair of chopsticks. [1]

Material \_\_\_\_\_



33. Study the flowchart below.



(a) State all the properties of material A. [1]

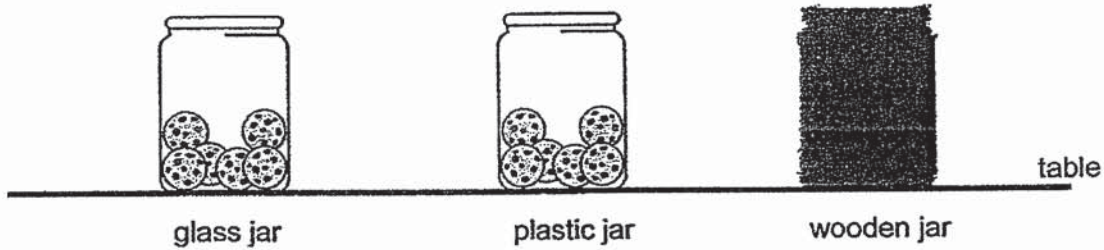
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(b) Which of the following materials, A, B, C and D is most suitable to be used to make the following items? [2]

Metal Tray	
Rubber Hose	

34. Sharon wanted to pack different flavoured biscuits for her trip to the swimming pool. She found 3 jars made of wood, glass and plastic which were made of different materials.



(a) i) Based on one property of wood, explain why the wooden jar would not allow her to choose a particular flavoured biscuit easily? [1]

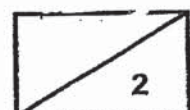
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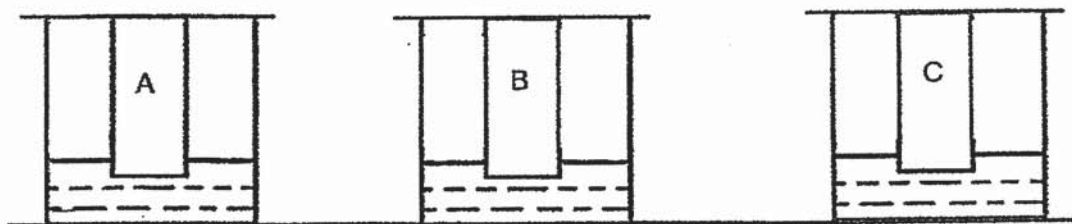
(a) ii) Based on a property of plastic, give a reason why Sharon should use the plastic jar instead of a glass jar for the trip. [1]

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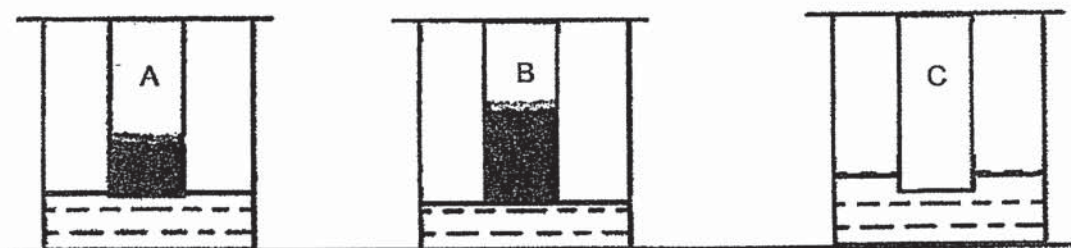
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35. Three pieces of cloth, A, B and C made of different materials were placed into a beaker containing the same amount of water at the same time as shown below.



After two minutes, it was observed that the cloths were wet as shown in the diagram below.



Based on the results of the experiment, which piece of cloth, A, B or C, is most suitable to clean a puddle of water using the mop? Explain your answer. [2]

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~ END OF BOOKLET B ~



## ANSWER KEY

**YEAR : 2019**  
**LEVEL : PRIMARY**  
**SCHOOL : NANYANG PRIMARY SCHOOL**  
**SUBJECT : SCIENCE**  
**TERM : FIRST SEMESTRAL ASSESSMENT**

### BOOKLET A

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

### BOOKLET B

**Q25. (a) Living things can reproduce.**

**(b)(i) It could have died.**

**(ii) It died of old age.**

**Q26. (a) Both of them can make their own food.**

**(b) It might not have been matured and cannot bear flowers.**

**(c) The rose plant.**

**Q27. (a) Flowering: Plant M, Plant P**

**Non flowering: Plant N, Plant O**

**(b)**

<b>Grow on land</b>	<b>Grow in water</b>
<b>Plant N</b>	<b>Plant M</b>
<b>Plant P</b>	<b>Plant O</b>

**Q28. (a)**

<b>Sir</b>	<b>Triple eye</b>
<b>Monster B</b>	<b>Monster A</b>
<b>Monster C</b>	<b>Monster F</b>
<b>Monster D</b>	
<b>Monster E</b>	

**(b)**

<b>Has horns</b>	<b>Has no horns</b>
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**(c) Moist skin**

**Q29. (a) It does not live in water, it breathes through lungs, it has hair and it gives birth to young alive.**

**(b) It lays eggs**

**(c) Animal A. It lives in water, it has hair and it gives birth to young alive.**

**Q30. (a) Amphibians**

**(b) Animal A has feet but animal B has flippers.**

**(c) It is to help reduce friction in water.**

**Q31. (a) (i) T**

**(ii) S**

**(b) Fungi**

**(c) It needs warmth and moisture to grow.**

**Q32. (a) Material Z**

**(b) Material X**

**Q33. (a) It is flexible and waterproof.**

**(b)**

<b>Metal Tray</b>	<b>C</b>
<b>Rubber Hose</b>	<b>A</b>

**Q34. (a)(i) Wood is opaque thus not allowing light to pass through so she would not be able to see through it and choose a particular flavoured biscuit.**

**(ii) It is strong and does not break easily when dropped.**

**Q35. B. It is able to absorb the most amount of water and can mop the floor**

2  
3/1/2