



## 2019 PRIMARY 3 SEMESTRAL ASSESSMENT 1

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

Date: 14 May 2019

Class : Primary 3 ( )

Time: 8.00 a.m. - 9.00 a.m.

Parent's Signature: \_\_\_\_\_

Duration: 1 hour

# SCIENCE

## BOOKLET A

### INSTRUCTIONS TO CANDIDATES

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

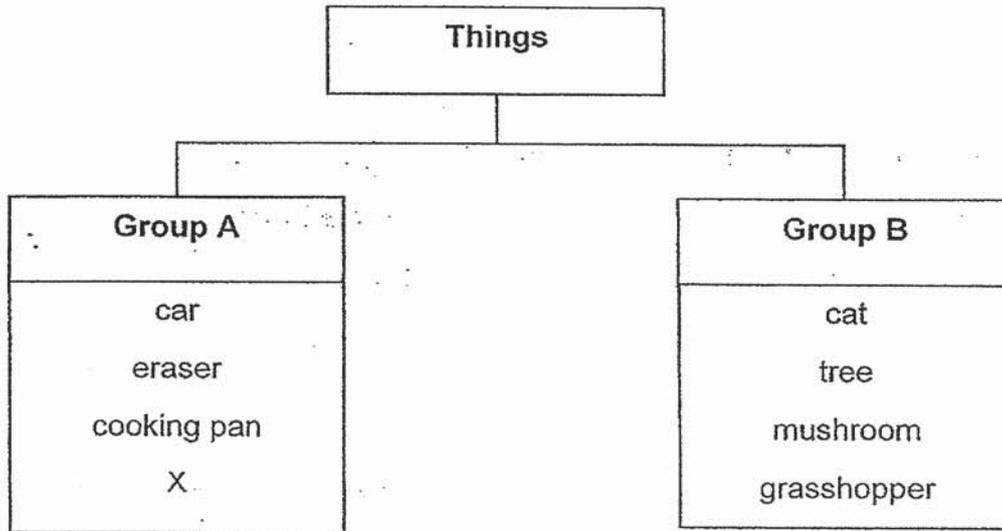


**Booklet A (14 x 2 marks)**

For each question from 1 to 14, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.  
(28 marks)

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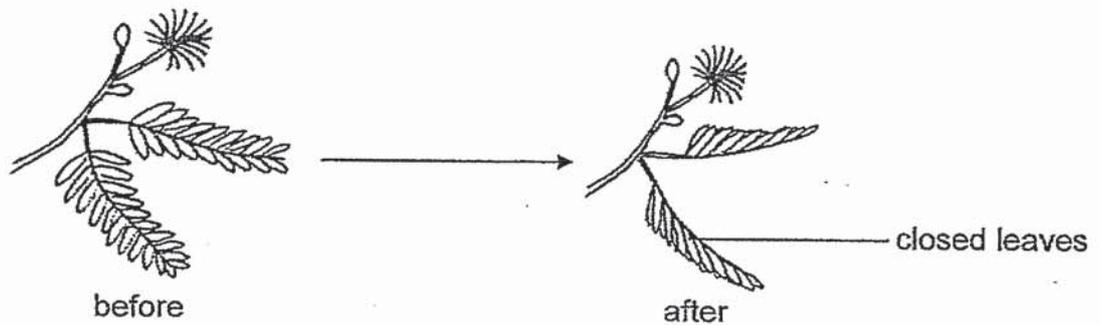
1. Study the classification chart below.



Which of the following can be represented by X?

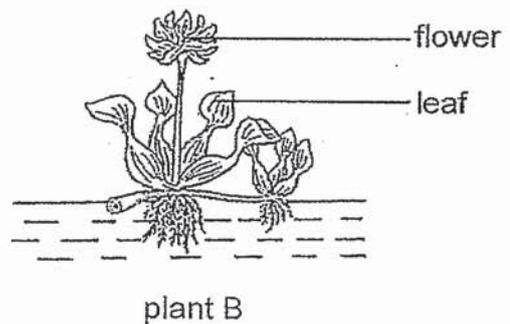
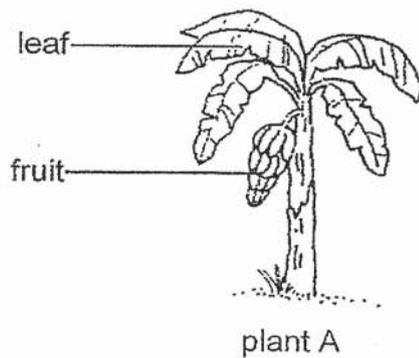
- (1) fish
- (2) bird
- (3) fork
- (4) bacteria

2. The diagrams below show that the leaves of a mimosa plant will close when someone touches them.



Which characteristic of living things does the above diagram show?

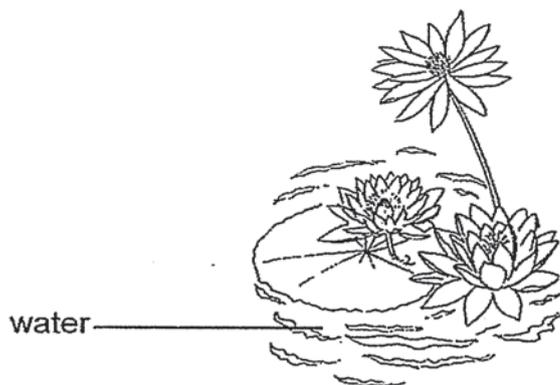
- (1) Living things grow.
  - (2) Living things reproduce.
  - (3) Living things respond to changes around them.
  - (4) Living things need air, food and water to stay alive.
3. Study the diagrams below.



How are plant A and plant B similar?

- (1) Both grow in water.
- (2) Both are flowering plants.
- (3) Both have leaves of the same shape.
- (4) Both do not need sunlight to make food.

4. Study the diagram of a plant shown below.



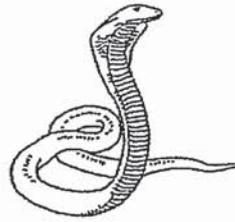
Based on the diagram above, which of the following plants, A, B, C or D, represents the above plant? A tick (✓) means that the characteristic is present in the plant.

	Plant	Characteristics		
		Has flowers	Makes its own food	Grows on land
(1)	A		✓	✓
(2)	B	✓	✓	
(3)	C		✓	
(4)	D	✓	✓	✓

5. The diagrams below show two animals.



chicken



snake

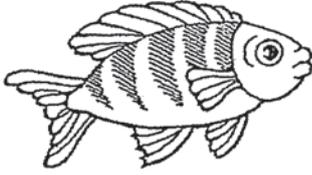
The above animals can be classified into the same group because both of them

\_\_\_\_\_.

- (1) lay eggs
- (2) have wings
- (3) have a beak
- (4) have feathers.

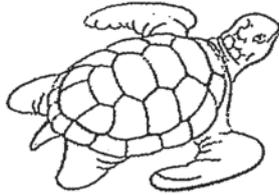
6. Which one of the following animals have a different body covering from the rest?

(1)



fish

(2)



turtle

(3)



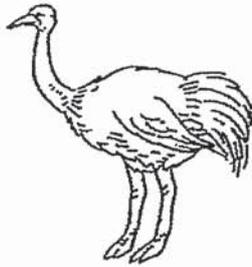
giraffe

(4)

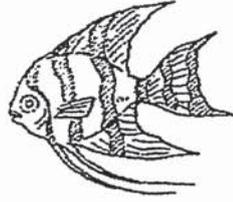


crocodile

7. Melissa wants to classify the animals below into two groups, Group C and D. Each group has only three animals.



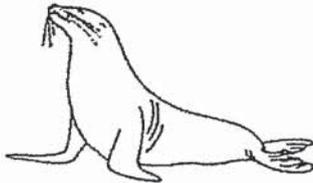
animal U



animal V



animal W



animal X



animal Y

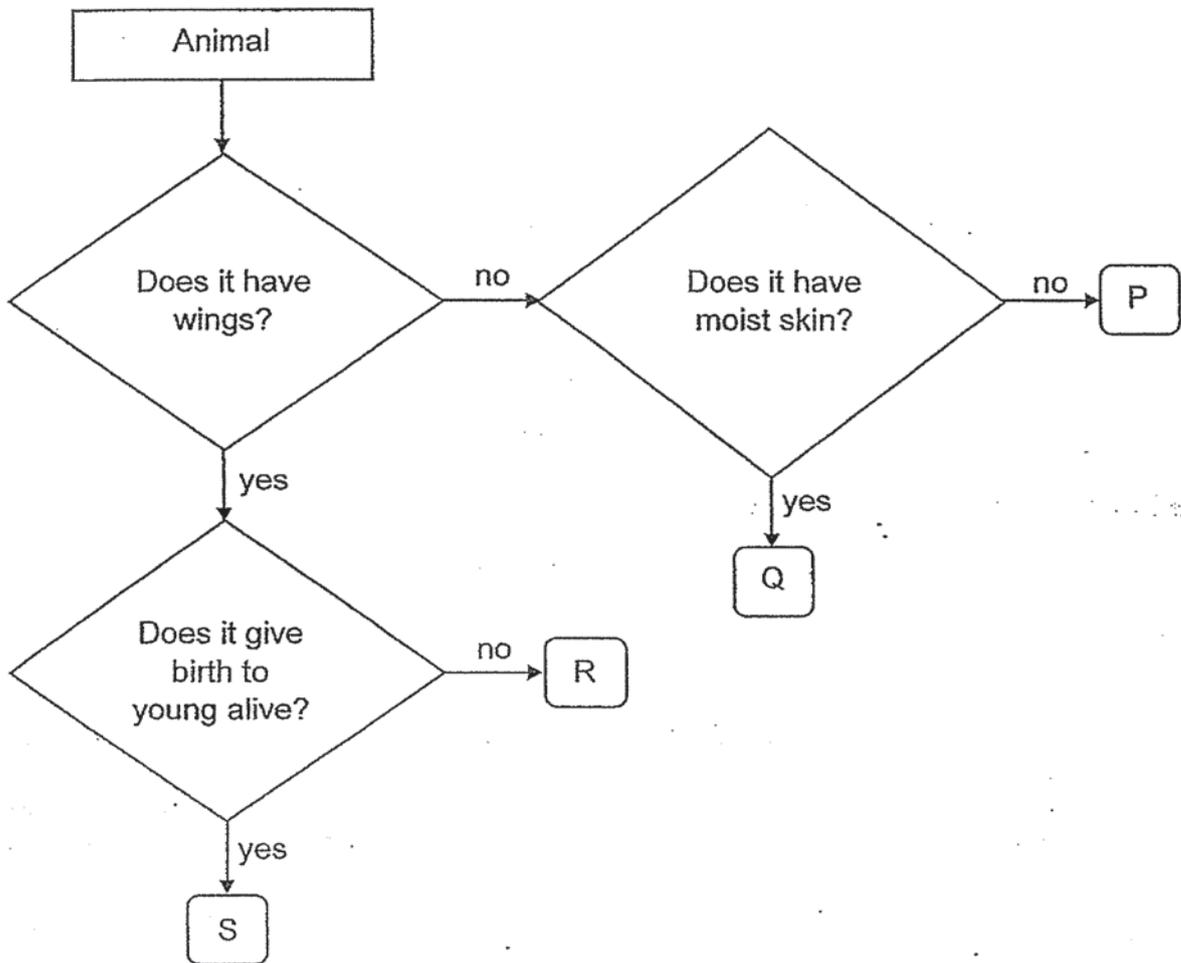


animal Z

Which pair of headings is most suitable for the 2 groups of animals?

	Group C	Group D
(1)	Have wings	Have no wings
(2)	Have feathers	Have scales
(3)	Give birth to young alive	Lay eggs
(4)	Have three body parts	Do not have three body parts

8. Study the flowchart below.



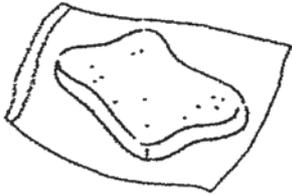
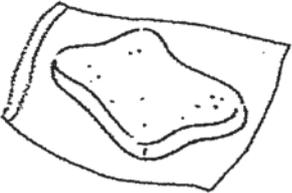
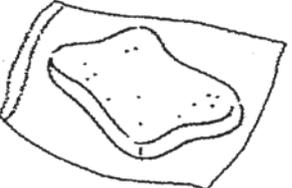
What do P, Q, R and S represent?

	P	Q	R	S
(1)	frog	turtle	bee	bat
(2)	turtle	frog	bat	bee
(3)	bat	frog	bee	turtle
(4)	turtle	frog	bee	bat

9. Which of the following statements about bacteria is false?

- (1) Bacteria cause food to spoil.
- (2) Yoghurt contains useful bacteria.
- (3) All bacteria have the same shape.
- (4) Bacteria can only be seen under a microscope.

10. Cindy put four slices of bread in four identical sealed plastic bags as shown below.

	
<b>set-up A</b> toasted bread placed in the refrigerator	<b>set-up B</b> toasted bread placed on the table
	
<b>set-up C</b> bread sprinkled with 5 drops of water and placed in the refrigerator	<b>set-up D</b> bread sprinkled with 5 drops of water and placed on the table

Which set-up would be the first to have fungi growing on its bread?

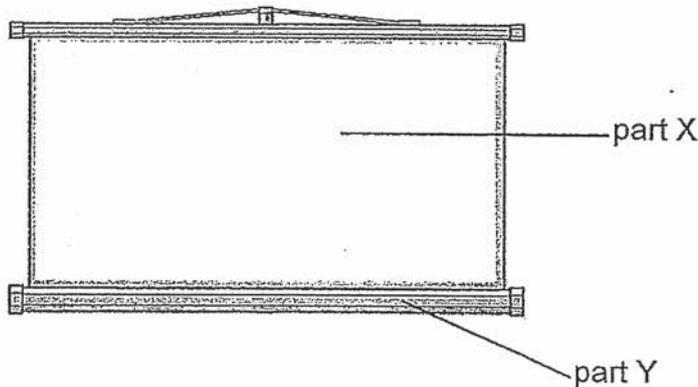
- (1) A
- (2) B
- (3) C
- (4) D

11. Desmond fell into the pool and he could not swim. His brother threw in a float for Desmond to hold onto till help arrives.



Which material is the float most likely made of?

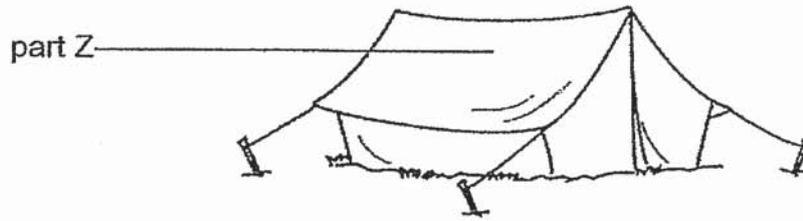
- (1) Glass
  - (2) Metal
  - (3) Plastic
  - (4) Ceramic
12. Below is a diagram of a projector screen used in a classroom. It can be rolled up when not in use.



Which of the following property is needed to make part X and Y of the projector screen?

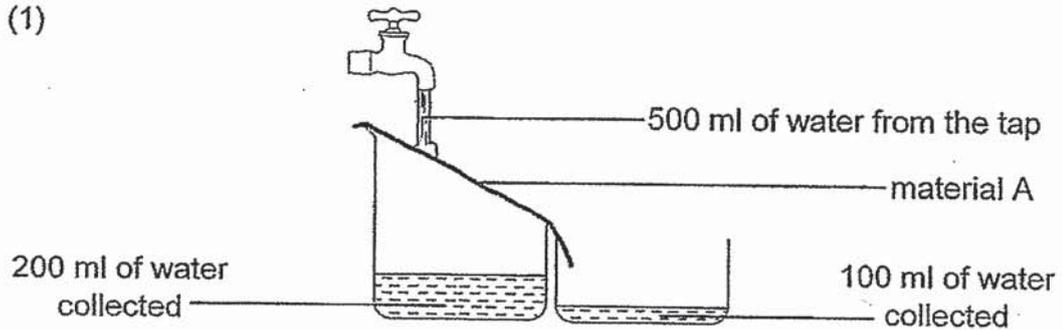
	Part X	Part Y
(1)	flexible	flexible
(2)	flexible	not flexible
(3)	not flexible	flexible
(4)	not flexible	not flexible

13. John wants to pitch a tent as shown below. The tent is to protect him from wet weather.

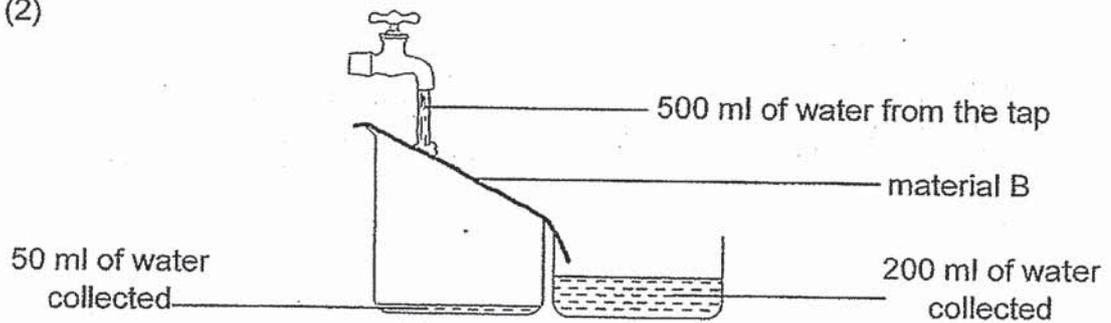


John did an experiment on four materials, A, B, C and D. The diagrams below show what he observed after five minutes. Which material, A, B, C or D, is most suitable to make part Z of the tent?

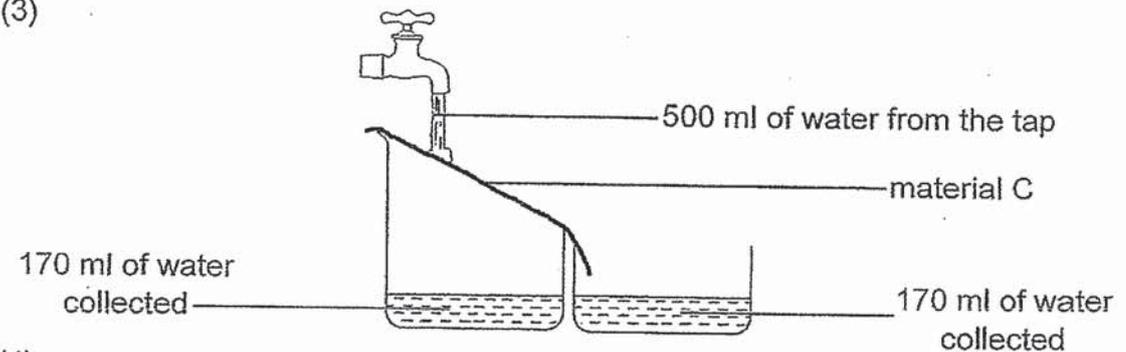
(1)



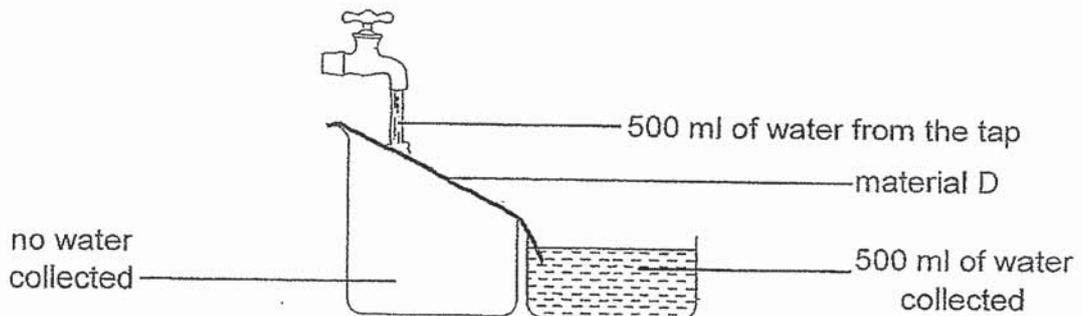
(2)



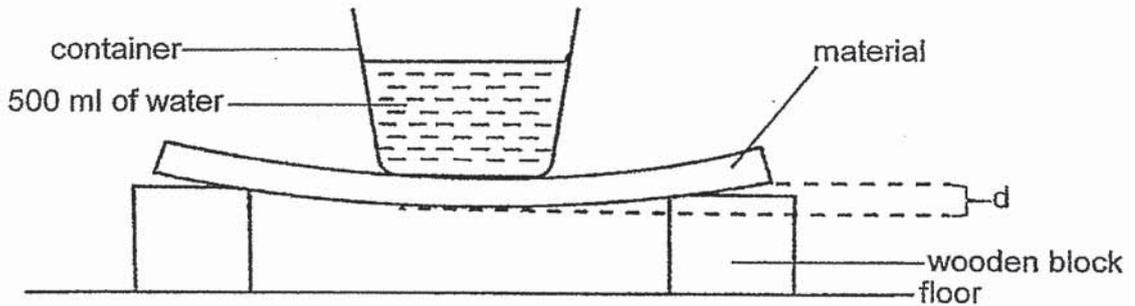
(3)



(4)



14. Mandy wanted to compare the flexibility of four materials, P, Q, R and S, of similar thickness. She prepared the set-up below. She placed a container of 500 ml of water on the material and observed how much the material bent.



She then measured the distance,  $d$ , shown above. She recorded the results in the table below.

Material	Distance, $d$ (cm)
P	5
Q	2
R	4
S	0

Based on the results, which material, P, Q, R, or S, is most suitable to make a food tray to carry food items properly without spilling?

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

End of Booklet A



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Date: 14 May 2019

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Time: 8.00 a.m. – 9.00 a.m.

Parent's Signature : \_\_\_\_\_

Duration: 1 hour

# SCIENCE

## BOOKLET B

### INSTRUCTIONS TO CANDIDATES

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

Booklet A	28
Booklet B	22
Total	50

**Booklet B (22 marks)**

For questions 15 to 24, write your answers clearly in this booklet.

The number of marks available is shown in brackets [ ] at the end of each question or part question.

15. The table below shows the length of two things, X and Y, over twelve months.

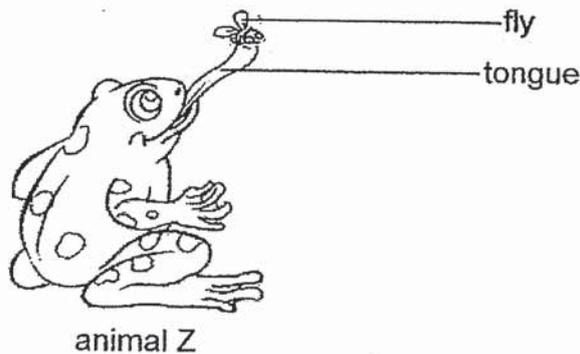
	Length in cm after a period of		
	0 month	6 months	12 months
X	20	25	35
Y	20	20	20

(a) Based on the results in the table, is X or Y a pencil case? Explain your answer. [1]

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Study the diagram below.



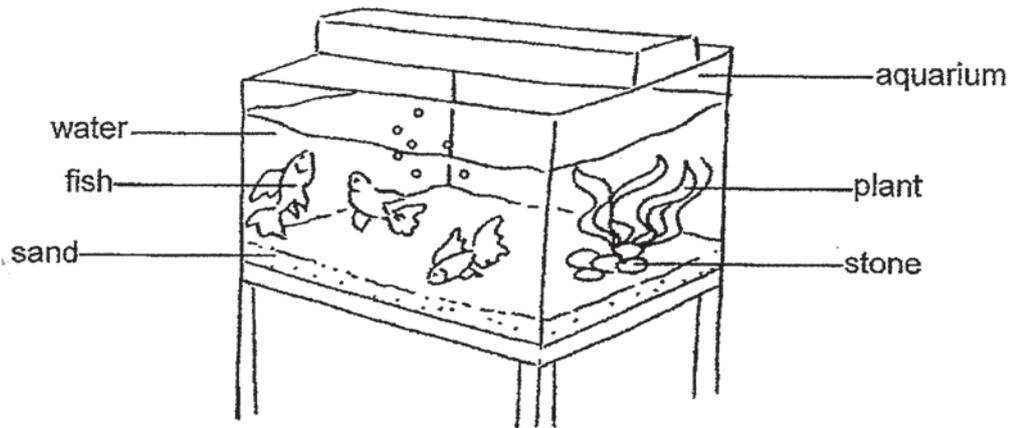
(b) Which characteristic of living things does animal Z show? [1]

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Score	2
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16. Andy set up an aquarium with three fishes. The fishes were given food daily.



Andy did not add or remove any fishes over eight months. He counted the number of fishes in the aquarium at the end of every month and recorded the number in the table below.

Month	Number of fishes
January	3
February	3
March	3
April	10
May	15
June	8
July	5
August	2

- (a) (i) What did Andy observe about the number of fishes from January to May?

[½]

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- (ii) Explain your answer in (ai).

[½]

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- (b) Andy observed that the number of fishes decreased from June onwards. Give a reason for his observation.

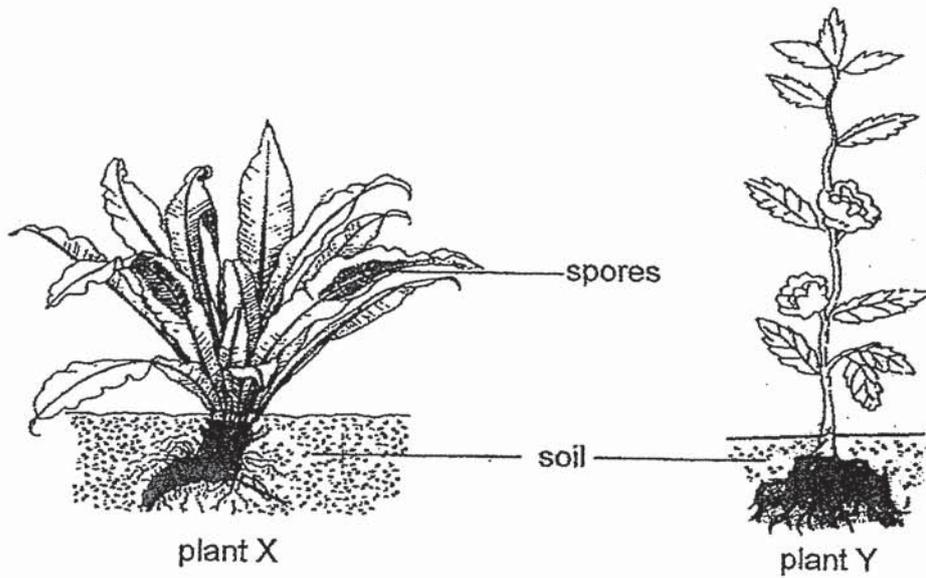
[1]

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Score	2
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17. Study the diagrams below.



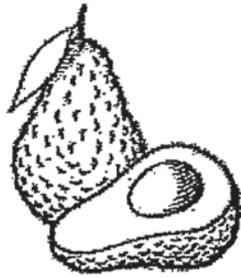
Based on the diagrams above, state one similarity and one difference between plant X and plant Y. (Do not compare on their colour, shape and size.) [2]

Similarity: \_\_\_\_\_  
\_\_\_\_\_

Difference: \_\_\_\_\_  
\_\_\_\_\_

Score	2
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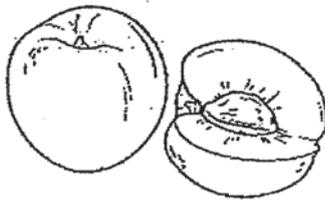
18. Four fruits are shown below.



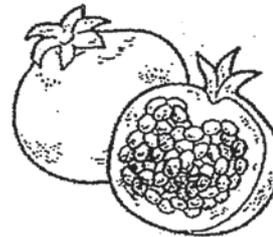
fruit A



fruit B

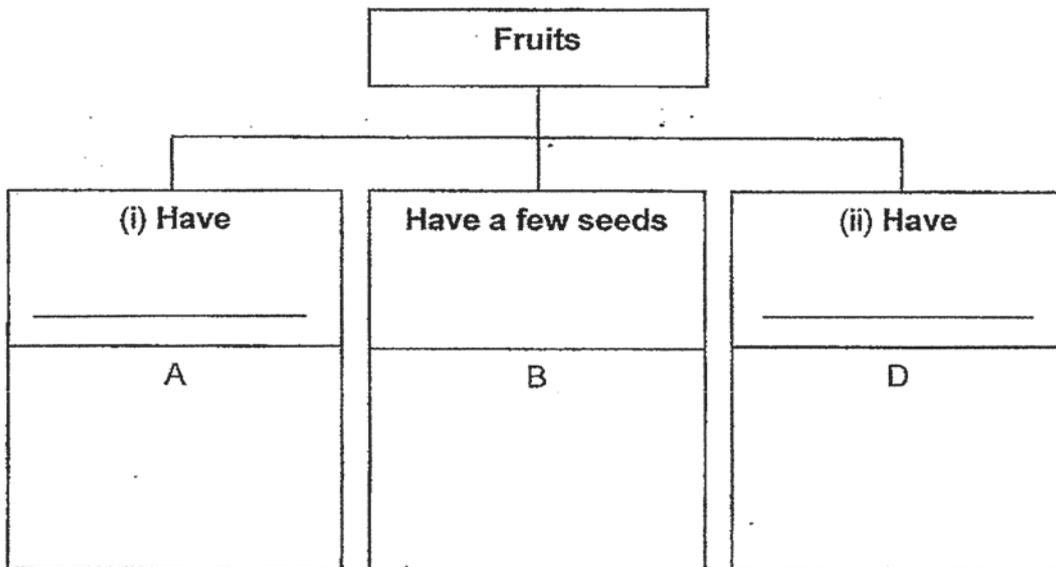


fruit C



fruit D

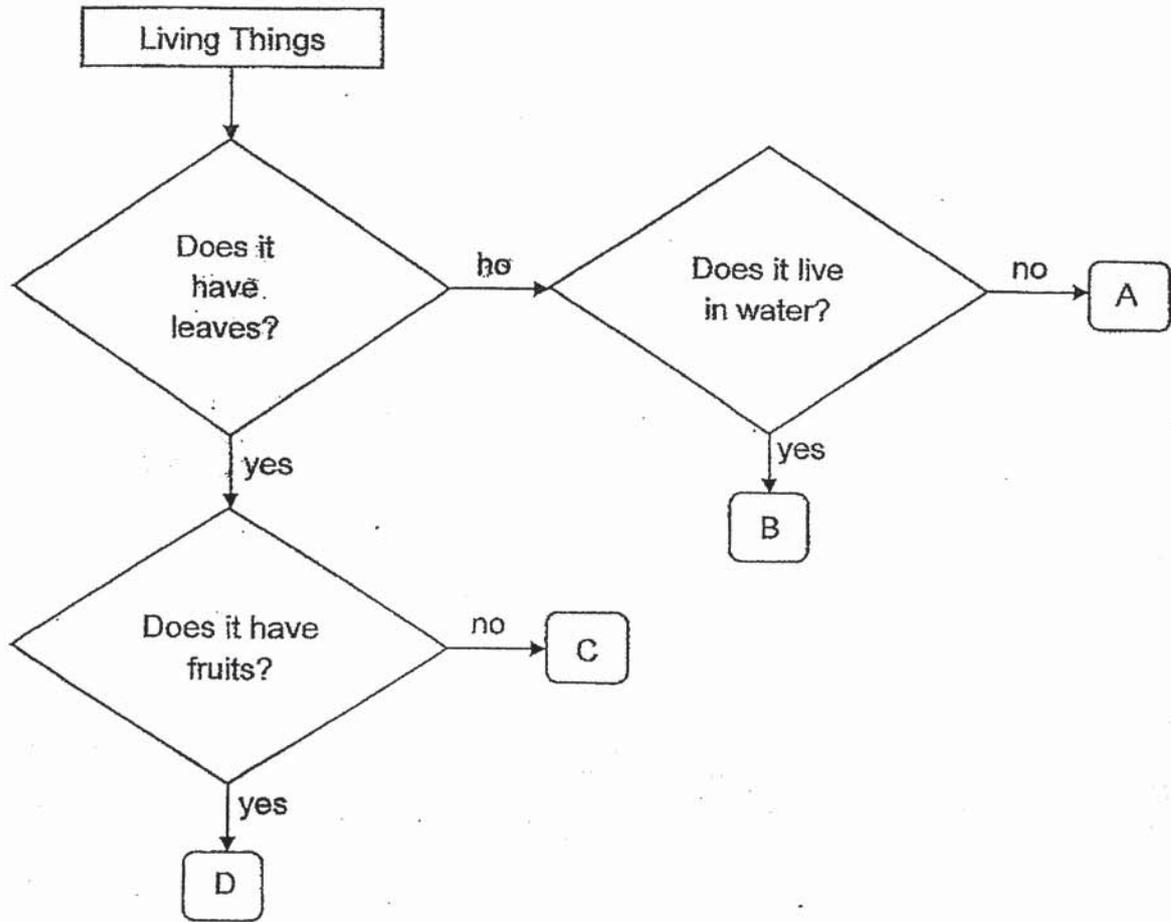
(a) Fruits A, B, C and D, are represented in the chart below. Fill in suitable headings for boxes (i) and (ii). [1]



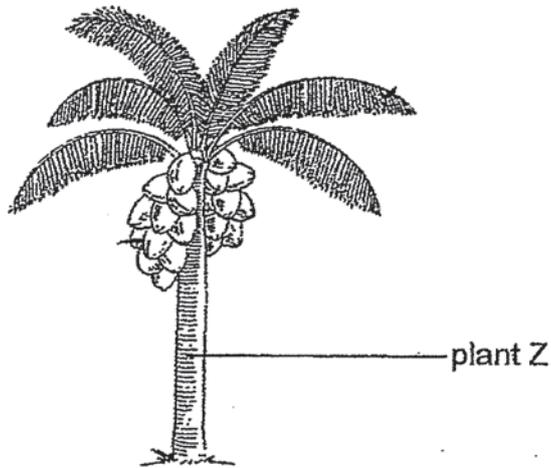
(b) Place Fruit C under the correct heading in the chart above. [1]

Score	2
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19. Study the flowchart below.



The diagram below shows plant Z.



- (a) Which living thing, A, B, C or D, in the flowchart represents plant Z above? Based on the flowchart and diagram above, state two characteristics of plant Z to support your choice. [1]

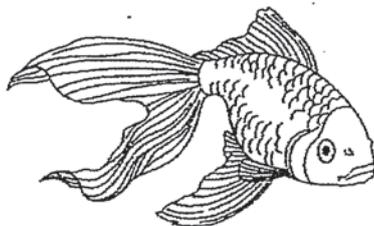
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- (b) Based on the flowchart, match the two living things shown below to the correct letter. [1]

Living Things

Letter



• A

• B

• C



• D

Score	2
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20. Study the table below.

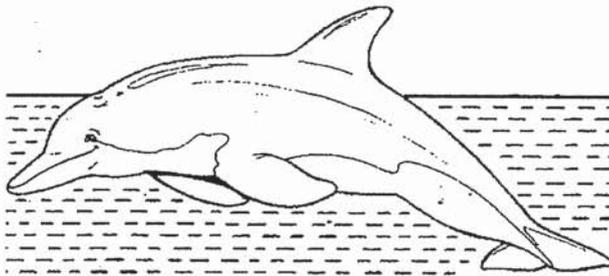
Animals	
Group A	Group B
pigeon mosquito grasshopper	lion toad crocodile

(a) Based on the table above, what should the headings for Group A and Group B be? [1]

Group A: \_\_\_\_\_

Group B: \_\_\_\_\_

The diagram below shows animal Q.



animal Q

(b) In which group, A or B, can an animal Q be grouped under? Explain why. [1]

\_\_\_\_\_

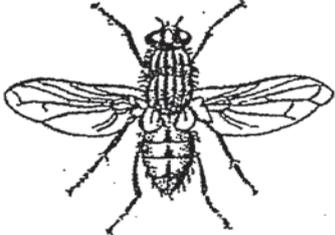
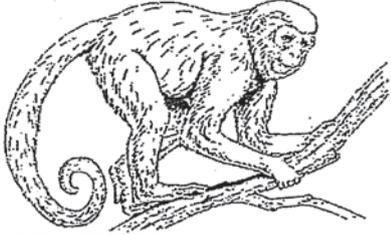
\_\_\_\_\_

Score	2
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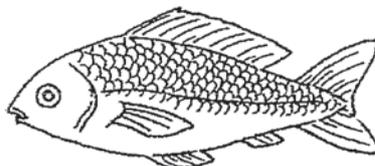
21. Karen recorded her observations on animals, A, B, C and D, in the table below.

Animal	Legs	Wings	Feelers	Tail
A	4	0	0	0
B	6	2	2	0
C	4	0	0	1
D	2	2	0	1

(a) Match the above animals to the two animals shown below by writing, A, B, C or D, in the boxes below. [2]

Animals	Animal
	
	

(b) Can the fish shown below be represented by animal D shown in the table above? Give a reason for your answer. [1]



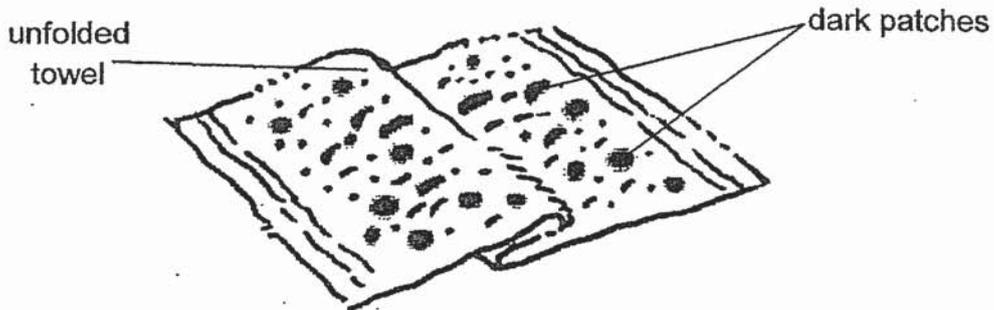

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Score	3
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22. Daniel left his wet towel folded on the bathroom floor after his shower and went overseas for one week. When he came back, he observed some dark patches growing on his towel when he unfolded it. His mother told him that he should have hung his wet towel on a towel bar.



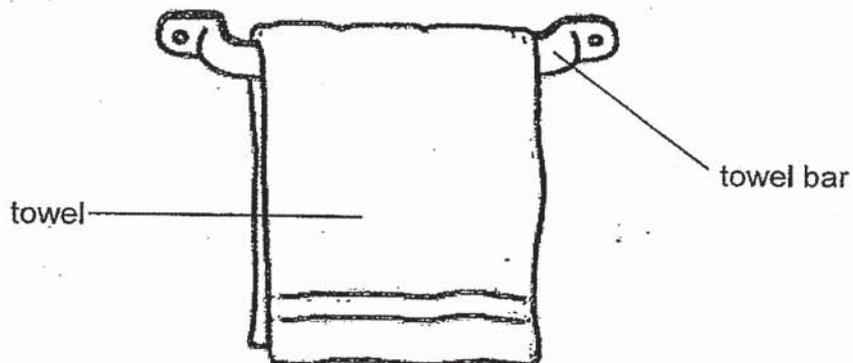
- (a) What are the dark patches on the towel?

[1]

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- (b) Why does hanging a wet towel on a towel bar prevents dark patches from growing on it?

[1]

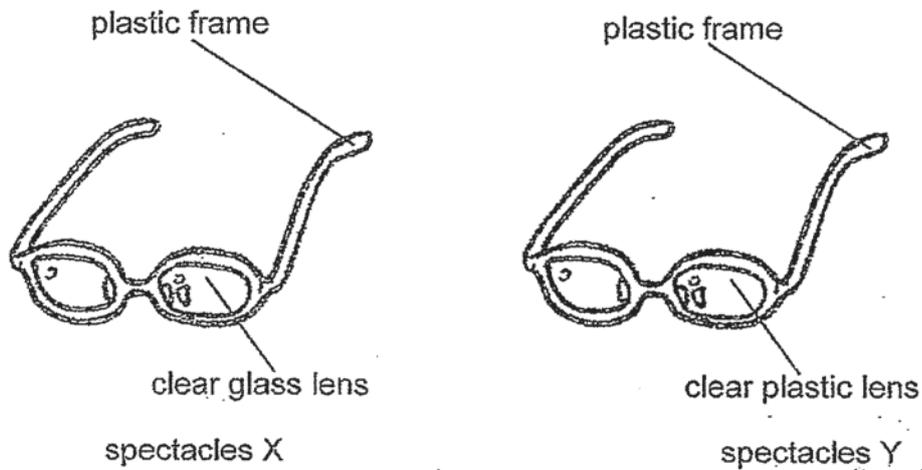


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Score	2
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23. Sarah needs to wear spectacles to help her read in the classroom. However, Sarah tends to fall when she runs in school and this often causes the spectacles to fall off.



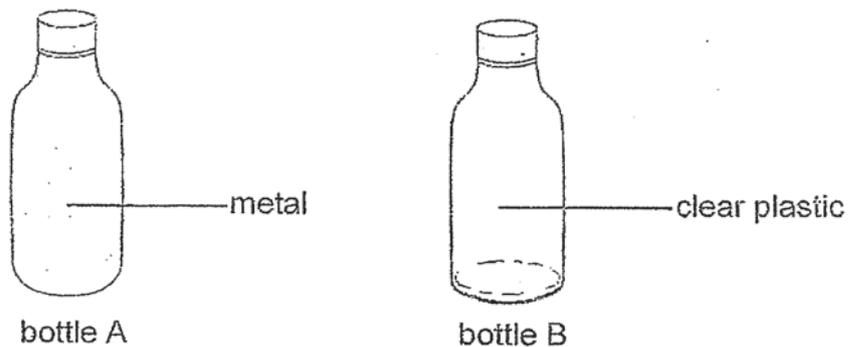
- (a) Which pair of spectacles, X or Y, is safer for Sarah to wear? Explain your answer. [1]

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Sarah wants to buy a new waterbottle which allows her to check the amount of water left by just looking at it without opening the bottle cap. The diagrams below show two empty waterbottles made of different materials.



- (b) Which bottle, A or B, should Sarah use? Explain your answer. [1]

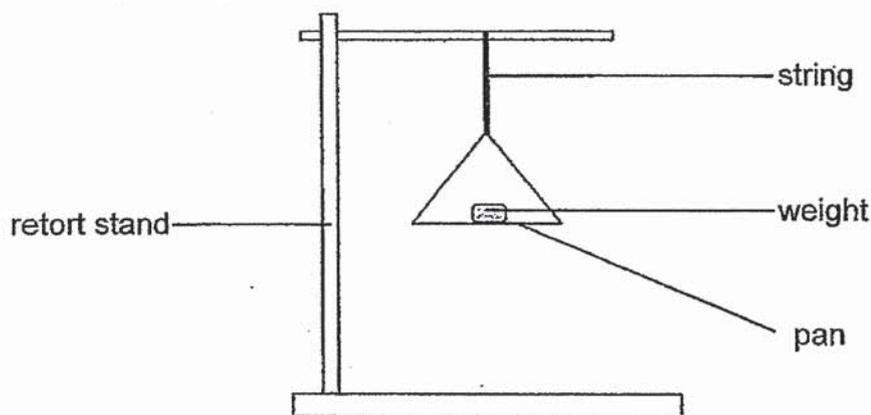
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Score	2
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24. Alvin set up an experiment as shown below.



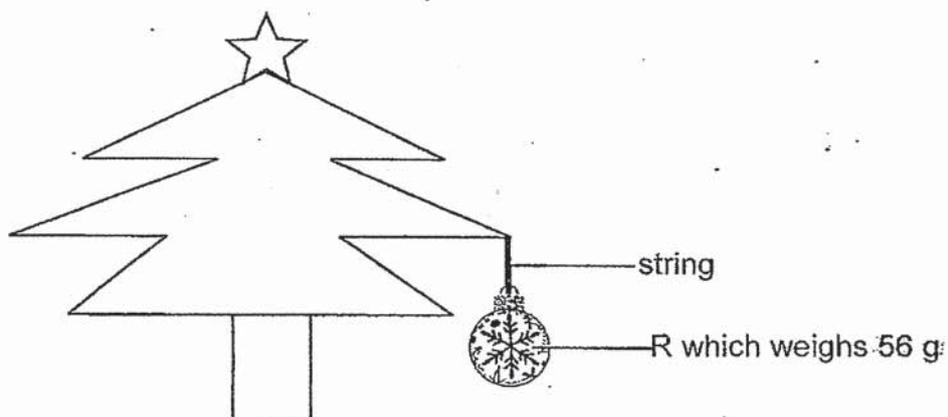
He added different weights onto the pan until string X broke. He repeated the experiment with string Y and Z. His results are shown below.

String	X	Y	Z
Minimum amount of weight added to break the string (g)	60	70	50

(a) What property of the string was Alvin trying to find out? [1]

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Alvin wanted to hang decoration R on the branch of a tree as shown below.



(b) Which string(s), X, Y or Z, could he use to hang decoration R on the branch of the tree? [1]

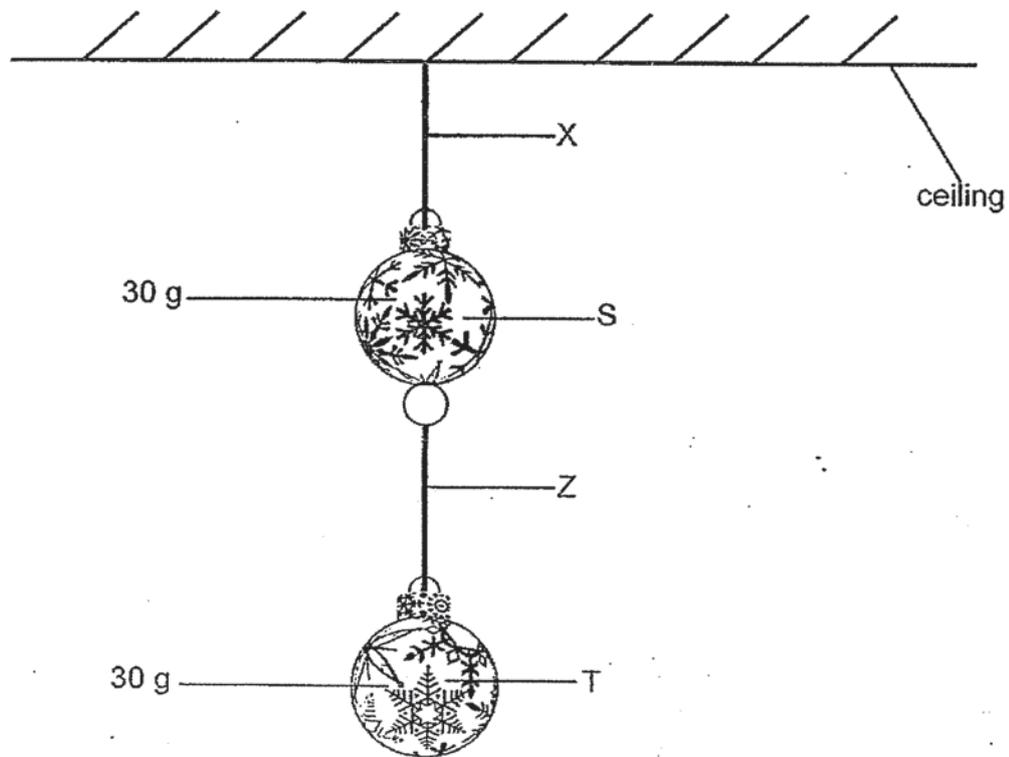
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Score	2
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Alvin hung his decorations, S and T, from the ceiling in the set-up as shown below.



- (c) One of the strings broke in the set-up. Based on the results of Alvin's experiment, what change should he make to set-up so that both S and T can be hung from the ceiling without any of the strings breaking?

[1]

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Score	1
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End of Paper



## ANSWER KEY

YEAR : 2019  
LEVEL : PRIMARY 3  
SCHOOL : Tao Nan Primary School  
SUBJECT : Science  
TYPE : SA1

### Booklet A

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

### Booklet B

Q15. a) Y. Y did not grow.

b) Living things need food to survive.

Q16. ai) The number of fishes increased.

aii) The fishes reproduced.

b) The fishes died.

Q17. Similarity: Both plant X and Y have leaves.

Difference: Plant Y bears flowers while plant X does not bear flowers.

Q18. ai) One seed

aii) many seeds

b) Put fruit C with fruit A

Q19. a) Living thing D. Plant Z has leaves and has fruits.

b) Match fish with B. Match mushroom with A.

Q20. a) Group A: Can fly      Group B: Cannot fly

b) Group B. Animal Q cannot fly.

Q21. a) B,C

No. Animal D has wings while the fish does not have wings.

Q22. a) Mould.

b) When the wet towel hangs, it dries. Hence, there is no water for the mould to grow.

Q23. a) Spectacles Y. Plastic lens does not break as easily as glass lens. Thus, Sarah will not get hurt.

b) Bottle B. Bottle B is made of clear plastic, making it transparent and allows light to pass through, as a result, Sarah can see through the bottle and can determine the amount of water left in the bottle without opening the cap. However, Bottle A is made of metal, which makes the bottle opaque. Thus, light is unable to pass through and Sarah is unable to see through the bottle.

Q24. a) The strength of the string.

b) String X and string Y. Both string X and string Y are able to withstand weight more than the weight of R which is 56g. However, Z can only withstand 49g before the string breaks. As a result, string Z is not strong enough to be used to hang decoration R which weighs 56g.

c) Change string X to string Y. While string X breaks at the weight of 60g, String Y is able to withstand 69g of weight. String X is unable to withstand the combined weight of decoration S and T as they total up to 60g. However, string Y being able to withstand 69g of weight will be able to be used for hanging the decorations S and T. Alternatively, he can hang the decorations S and T separately.

2  
3ND