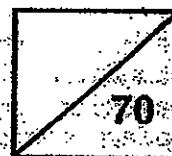




**Rosyth School**  
**First Semestral Assessment for 2012**  
**SCIENCE**  
**Primary 3**

Name: \_\_\_\_\_

Total  
Marks:



Class: Pr 3- \_\_\_\_\_

Register No. \_\_\_\_\_

Duration: 1 h 30 min

Date: 14 May 2012

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

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## Booklet A

### Instructions to Pupils:

1. Do not open the booklets until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B
4. For questions 1 to 20 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.
5. For question 21 to 32, write your answers in the spaces given in Booklet B

	Maximum	Marks Obtained
Booklet A	40 Marks	
Booklet B	30 Marks	
Total	70 Marks	

\* This booklet consists of 15 pages

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**Part I (40 MARKS)**

For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.

1. Which one of the following statements about bacteria is true?

- (1) All bacteria are harmful.
- (2) All bacteria are non-living things.
- (3) All bacteria are micro-organisms.
- (4) All bacteria are reproduced from spores.

2. Which of the following statements show the similarities between plants and animals?

- A: Both of them can die.
- B: Both of them need air, food and water.
- C: Both of them can move from place to place.

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

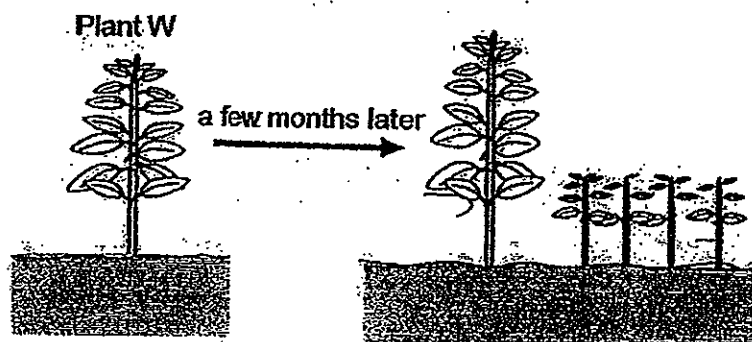
3. Ahmad has four things, W, X, Y and Z, in his house. He observed them for a period of six months and described their characteristics in the table below.

	Can move	Can reproduce	Can respond to changes
W	No	No	Yes
X	Yes	No	No
Y	Yes	No	Yes
Z	Yes	Yes	Yes

Which of the above is/are most likely to be living thing(s)?

- (1) X only
- (2) Z only
- (3) X and Z only
- (4) W and Y only

4. Meimei bought Plant W and planted it in her garden. A few months later, she observed some changes to her plant as shown below.

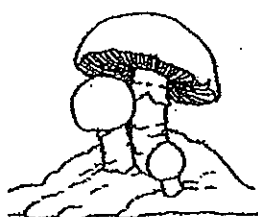


What characteristics of living things does Plant W show after a few months?

- A: Living things can die.
- B: Living things can grow.
- C: Living things can reproduce.
- D: Living things can respond to changes.

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

5. Which of the following statements are true about both toadstool and fern?



toadstool

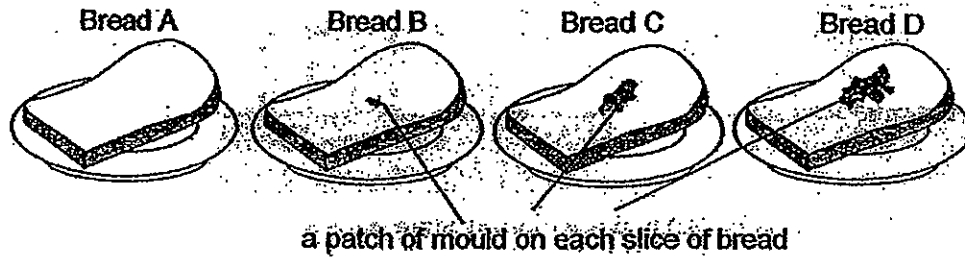


fern

- A: Both of them can make food.
- B: Both of them feed on other plants.
- C: Both of them reproduce by spores.
- D: Both of them do not produce flowers.

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

6. Cheryl took four slices of bread from the same loaf. She added different amount of water on the four slices of bread, Bread A, Bread B, Bread C and Bread D. She kept all the four slices of bread in a dark room. The results are as shown in the pictures and table below.

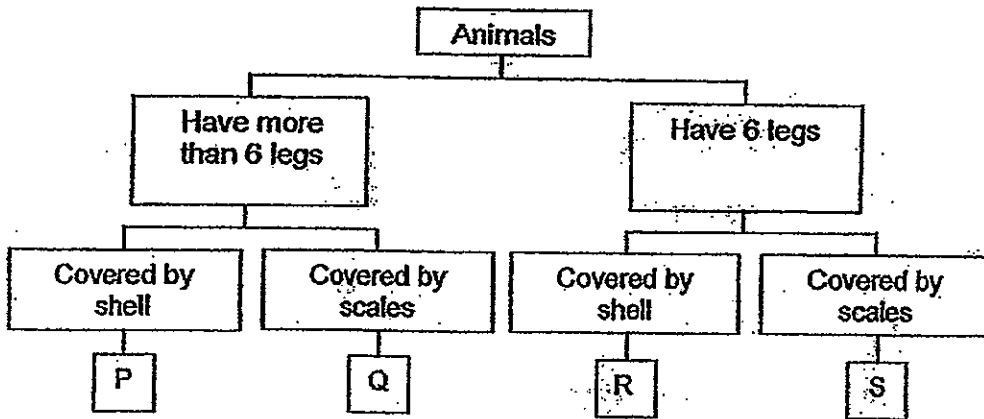


Bread	Amount of water (Number of droplets)	Number of patches of mould	Size of each patch of mould
A	0	0	-
B	5	1	small
C	10	1	medium
D	15	1	large

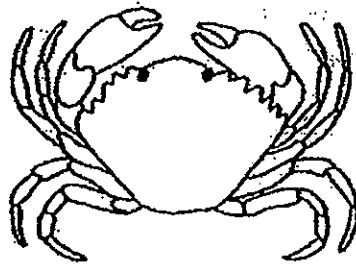
Which condition has affected the reproduction of mould?

- (1) type of bread  
 (2) amount of light  
 (3) amount of water  
 (4) the place of the experiment

7. Study the classification diagram below.



Which group of animals should Animal Z be classified?

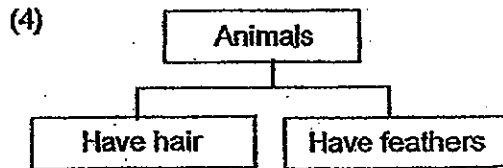
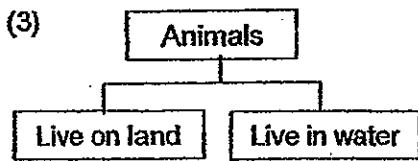
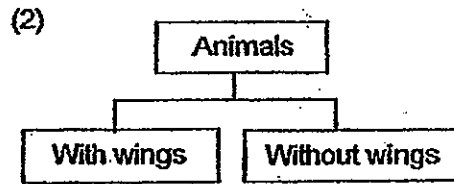
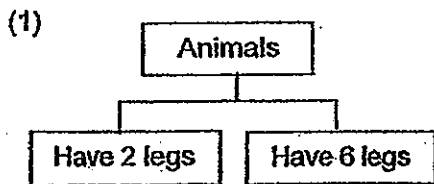
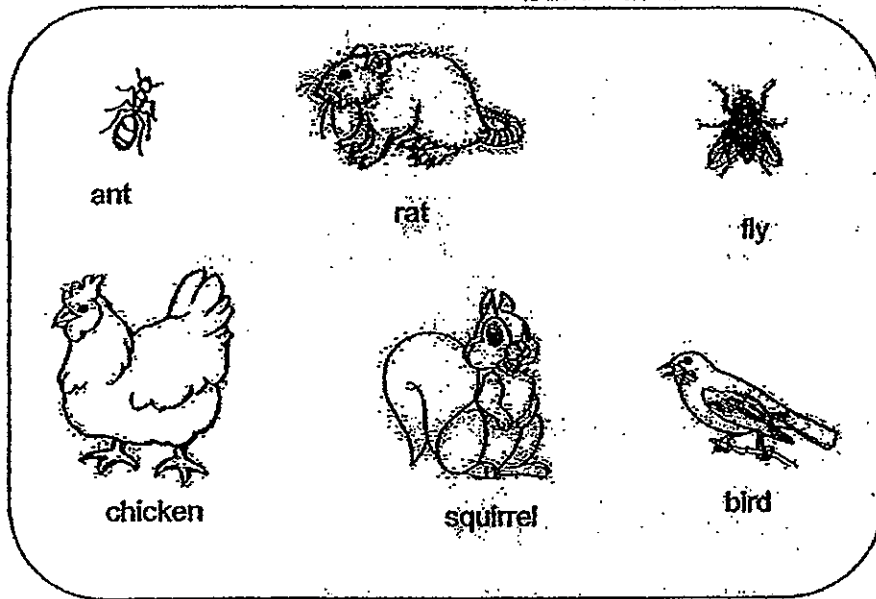


Animal Z

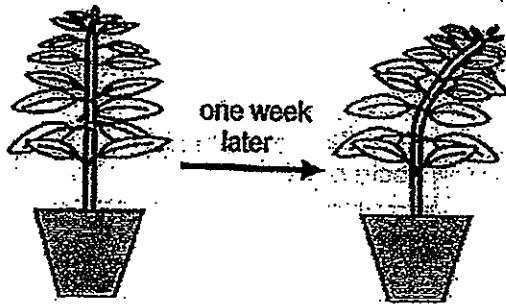
- (1) P
- (3) R

- (2) Q
- (4) S

8. Study the animals below carefully.  
Which of the following classification diagrams can be used to classify these animals?



9. Siew Lin put a plant in a box to find out if the plant responds to light. She placed the box in an open area and watered the plant daily. The pictures below show how the plant looked like after one week.

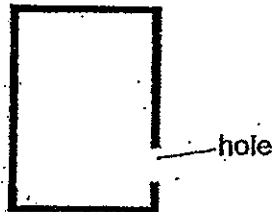


Which one of the following is most likely to be the box she had used to put her plant?

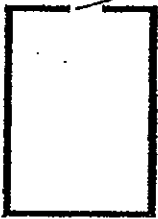
- (1) Cardboard box without a hole



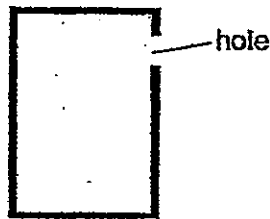
- (2) Cardboard box with a hole



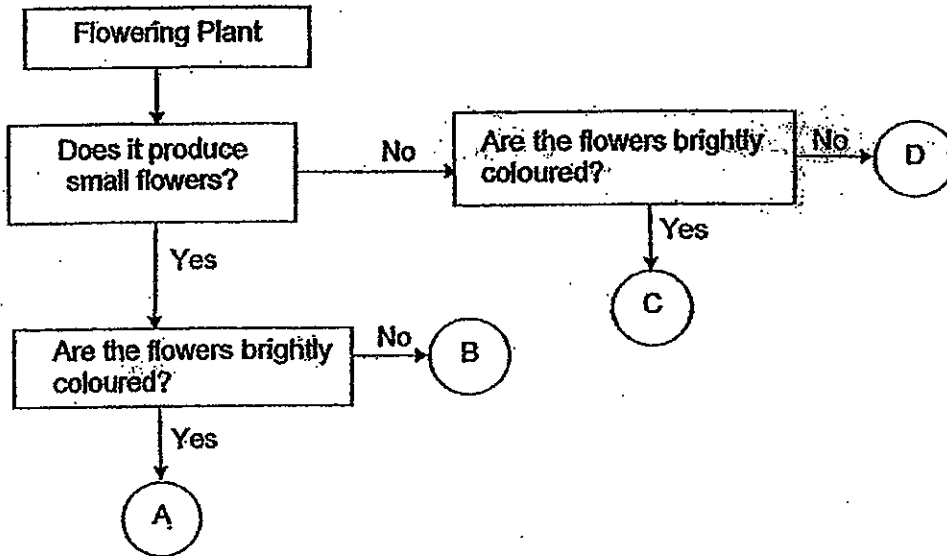
- (3) Cardboard box with a hole



- (4) Cardboard box with a hole



10. The flowchart below gives the characteristics of some flowering plants.



Lily observed that insects are attracted to large and brightly coloured flowers. Which group of plants could the insects be attracted to?

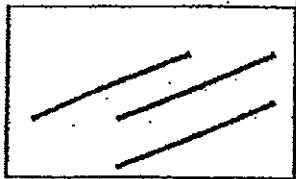
- (1) A
- (2) B
- (3) C
- (4) D

11. David chose metal as the material to make his cupboard. Which property of metal is most useful when he made his choice?

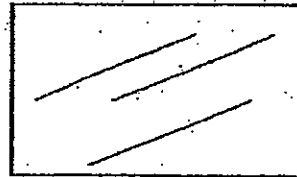
- (1) Hardness
- (2) Strength
- (3) Flexibility
- (4) Waterproof



12. John used an iron nail to make scratches on two different materials, X and Y.



Material X

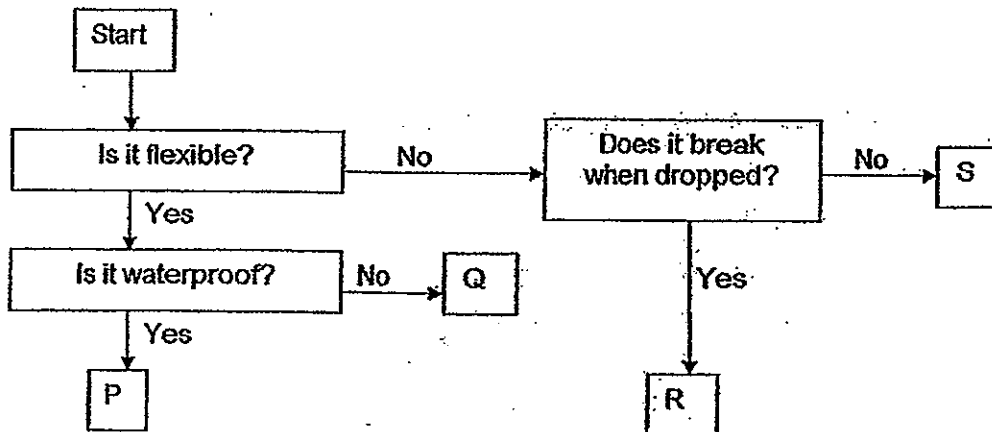


Material Y

Which property of material did he test?

- (1) Hardness
- (2) Strength
- (3) Flexibility
- (4) Ability to float on water

13. Study the flowchart below.



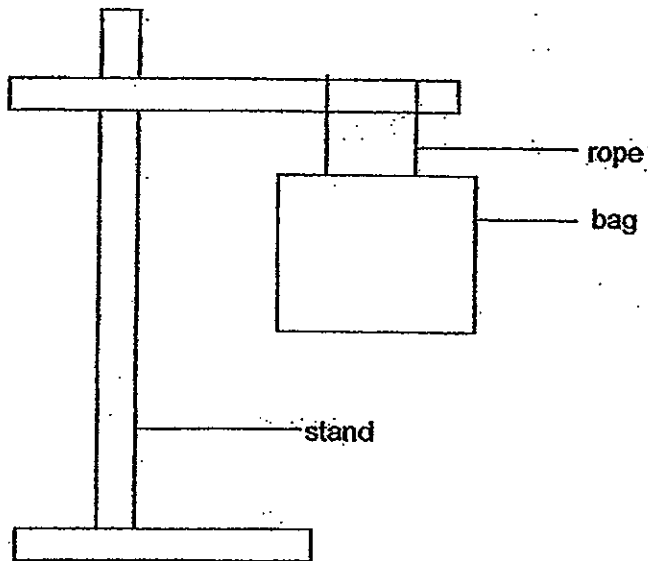
In what way(s) is/are P and Q similar?

- A: Both are flexible.
- B: Both are waterproof.
- C: Both do not break when dropped.

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



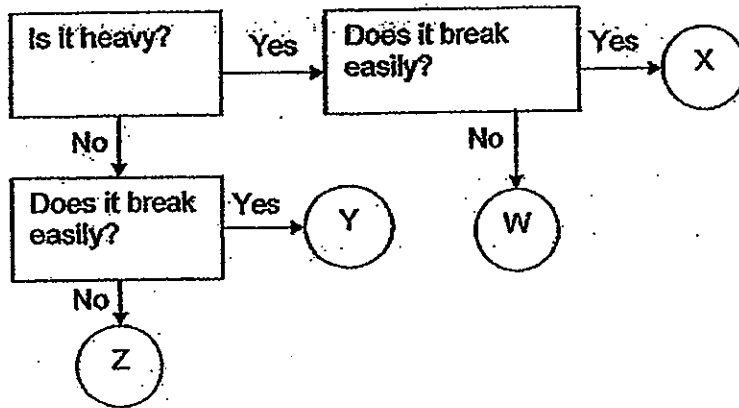
15. Miss Tan tested four different types of paper bags using the set-up below.



She wanted to find out which bag is the strongest. Which of the following test should she carry out?

- (1) Find out which material is man-made.
- (2) Find out how much weight the bag can hold.
- (3) Find out how much water the bag can absorb.
- (4) Find out how much the bag can bend with a weight.

16. The flowchart below shows some properties of material.



Which of the following groupings for W, X, Y and Z are correct?

A:

Break easily	Does not break easily
X	W
Y	Z

B:

Light	Heavy
Y	W
Z	X

C:

Break easily	Does not break easily
W	Y
X	Z

D:

Light	Heavy
X	W
Z	Y

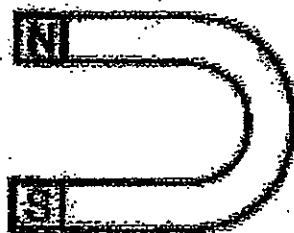
- (1) A and B only  
 (3) A, B and C only

- (2) C and D only  
 (4) A, C and D only

17. A strong U-shaped magnet is brought close to a gold coin as shown in the diagram below.



gold coin



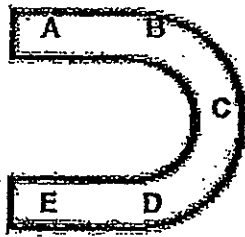
magnet

Which one of the following is likely to happen?

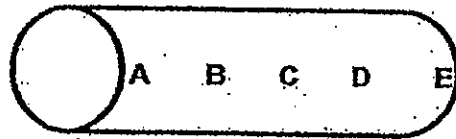
- (1) The magnet moves towards the gold coin.
- (2) The gold coin moves towards the magnet.
- (3) The gold coin moves away from the magnet.
- (4) The gold coin remains where it is, without moving.

18. Desmond had four types of magnets. He labelled 5 parts of each magnet as shown below.

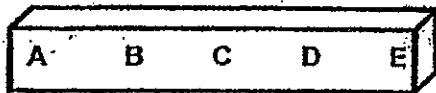
W



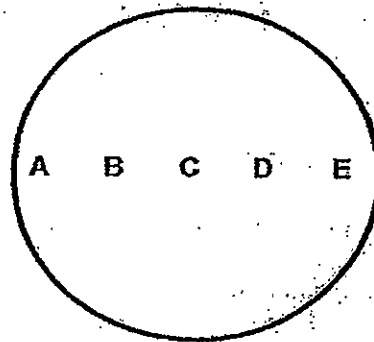
X



Y



Z



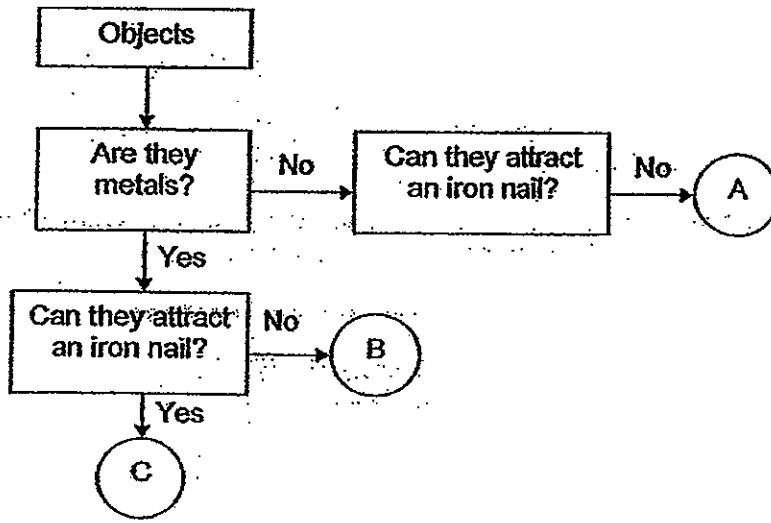
He put the magnets into a box of nails one at a time. He recorded the number of nails attracted to the 5 parts of the magnets. He recorded his results in a table below.

Parts of a magnet	A	B	C	D	E
Number of nails attracted to the part	10	4	1	4	10

Which of the following magnets, W, X, Y and Z would match the above results?

- (1) W and Y only  
 (2) X and Z only  
 (3) W, X and Y only  
 (4) W, X, Y and Z

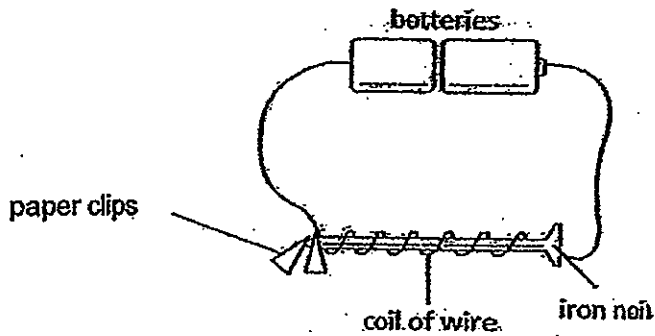
19. Jack classified some objects using a flowchart as shown below.



Which object(s) is/are magnet?

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

20. Tom made an electromagnet using the set-up below.



He changed the number of batteries and recorded the number of paper clips attracted by the iron nail as shown below

Tom tested up to four batteries and recorded his result as follows.

Number of batteries	Number of paper clips attracted
1	2
2	5
3	7
4	10

What can Tom infer from the experiment?

- A: The more batteries there are, the stronger the electromagnet will be.
- B: The more coils around the iron nail, the more paper clips picked up by the iron nail.
- C: The number of batteries does not affect the strength of the electromagnet.

(1) A only

(2) C only

(3) A and C only

(4) B and C only

End of Part I





**Rosyth School**  
**First Semestral Assessment for 2012**  
**SCIENCE**  
**Primary 3**

Name: \_\_\_\_\_

Total  
Marks:



Class: Pr 3- \_\_\_\_\_

Register No. \_\_\_\_\_

Duration: 1 h 30 min

Date: 14 May 2012

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

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## **Booklet B**

### Instructions to Pupils:

1. For questions 21 to 32, write your answers in the spaces given in this booklet.

\* This booklet consists of 9 pages.

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**Part II (30 MARKS)**

For questions 21 to 32, write your answers in this booklet.

21. A bird was eating the leftover food on a plate in the canteen. Alice saw it and ran towards it.

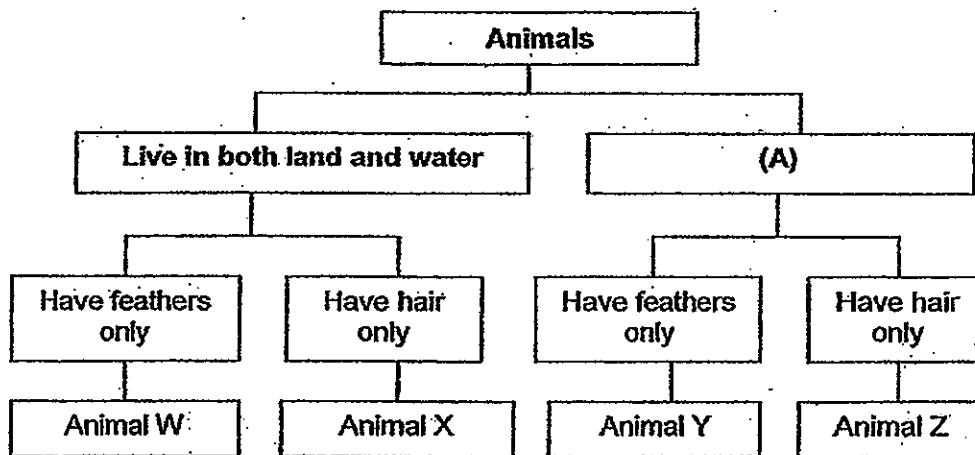
(a) What would the bird most likely do when Alice run towards it? (1m)

\_\_\_\_\_

(b) What characteristic of living things is shown in (a)? (1m)

\_\_\_\_\_

22. Study the classification diagram below.



(a) Give a suitable heading for (A). (1m)

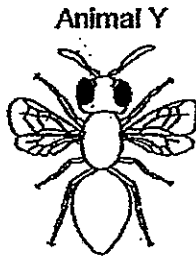
\_\_\_\_\_

(b) Can Animal W be a bird? Give a reason for your answer. (1m)

\_\_\_\_\_

\_\_\_\_\_

23. Look at the two animals shown below carefully.



Based on only what you see from the pictures above, state one similarity and difference between the two animals based on their special characteristics. (2m)

(a) Similarity: \_\_\_\_\_  
 \_\_\_\_\_

(b) Difference: \_\_\_\_\_  
 \_\_\_\_\_

24. Richard set up an air pump in his fish tank and kept some goldfish in it. He also placed some water plants in the fish tank. He fed the goldfish with food daily. At the end of each month, he recorded the number of goldfish that were still alive in the table below.

Month	Number of goldfish that were still alive
January	10
February	10
March	8
April	6
May	6

(a) From the table above, what do you observe about the number of goldfish between January to May? (1m)

\_\_\_\_\_

(b) What is the characteristic of living things observed from February to April? (1m)

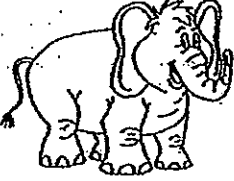
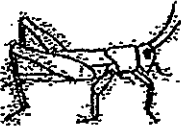
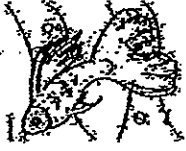



\_\_\_\_\_

25. Study the classification table below.

(a) Give a suitable heading for Group A and Group B. (2m)

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

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

Living Things		
Group A	Group B	Group C : Fishes
 elephant	 grasshopper	 guppy
 dog	 bee	 goldfish

The diagram below shows Animal Z.



Animal Z.

Jolene saw Animal Z and said that it must be placed in Group A.

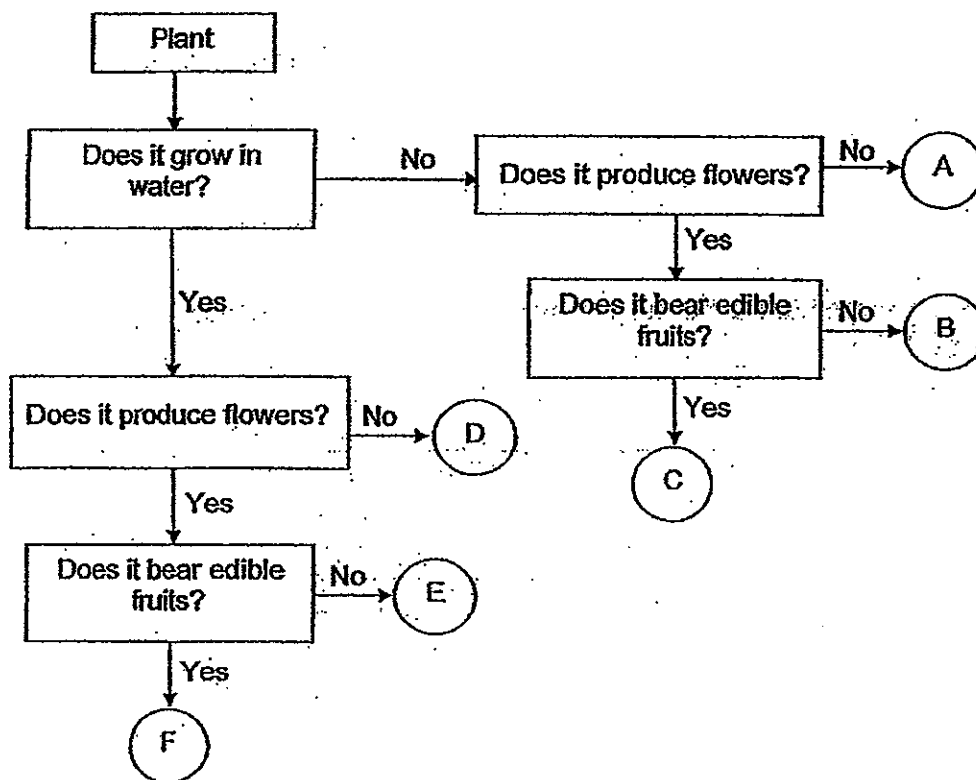
(b) What did she observe on Animal Z that caused her to make the above statement? (1m)

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26. The flowchart below gives the characteristics of some plants.



(a) State all the characteristics of Plant E. (1m)

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(b) State two similarities between Plant C and Plant F. (2m)

---



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(c) Which plants would you classify as non-flowering plants? Support your choices. (1m)

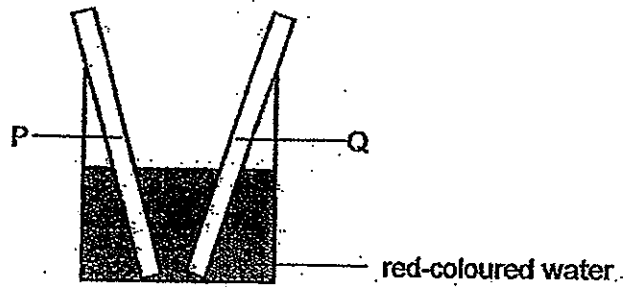
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28. Siti put two white strips of different materials, P and Q, into a beaker of red-coloured water. She left the set-up as it was for two hours.



When she returned, she observed that P remained white in colour but Q had turned into red colour.

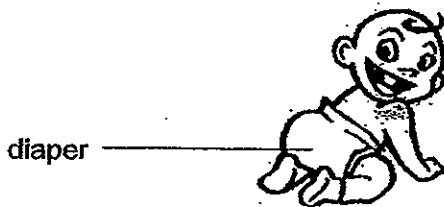
- (a) What can she conclude about the two materials? (2m)

- (i) Material P \_\_\_\_\_  
(ii) Material Q \_\_\_\_\_

- (b) Which material, P or Q, is better for making diaper for a baby?

Explain your choice.

(1m)



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29. The classification chart below shows how four materials, A, B, C and D are classified.

Materials	A	B	C	D
Strength	Yes	No	Yes	Yes
Flexible	No	Yes	Yes	Yes
Able to float on water	Yes	No	Yes	No

(a) State the properties of material A. (1m)

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(b) State a difference between materials B and C. (1m)

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(c) Would you use material D to make a school bag? Explain your choice. (1m)

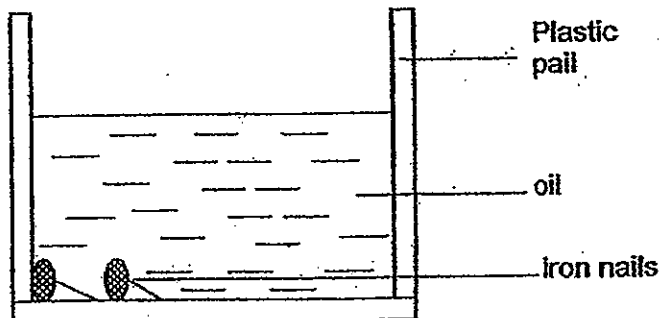
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30. David placed some iron nails in a plastic pail of oil. He wanted to remove the iron nails using a magnet. The magnet must not become oily while removing the nails.

(a) Draw in the diagram below to show where he should place the bar magnet. (1m)



(b) What should he do after placing the magnet as drawn by you in (a)? (1m)

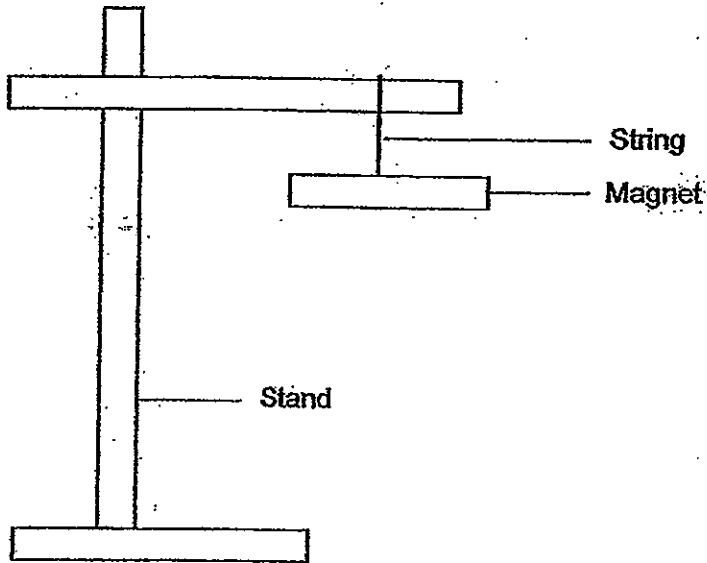
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31. In the first experiment a bar magnet was hung as shown below.  
The magnet came to rest after some time.

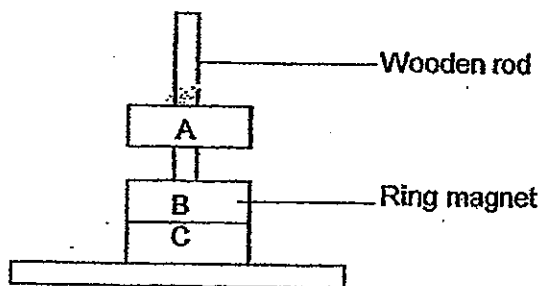


- (a) In what direction would the magnet come to rest? (1m)

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In the second experiment three ring magnets were placed on a wooden rod as shown below.



- (b) Magnet A is floating above Magnet B. Explain why. (1m)

---

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32. The diagram below shows a magnet and an object Z.



Sides A and B of object Z are attracted to the south pole of the magnet.

(a) Study the following statements and put a tick (✓) in the correct box. (2m)

	Statements	True	False
(i)	The north pole of the magnet will also attract object Z		
(ii)	Object Z is made of a non-magnetic material.		

(b) Support your answer for statement (ii) above. (1m)

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End of Paper

# ANSWER SHEET

## EXAM PAPER 2012

SCHOOL : ROSYTH SCHOOL

SUBJECT : PRIMARY 3 - SCIENCE

TERM : SA1

### Booklet A

1) 3	2) 1	3) 2	4) 2	5) 4	6) 3	7) 1	8) 2	9) 4	10) 3
11) 3	12) 1	13) 1	14) 3	15) 2	16) 1	17) 4	18) 3	19) 2	20) 1

21a) The bird would fly away.

21b) Living things respond to changes around it.

22a) Live on land only.

22b) Yes, animal W has feathers and birds have feathers.

23a) Similarity: Both Animal Y and Z have six legs.

23b) Difference: Animal Y has a pair of wings but Animal Z does not have a pair of wings.

24a) The number of fishes decreases.

24b) Living things die.

25a) Group A: Mammals

Group B: insects

25b) Animal Z has hair and animals in Group A have hair.

26a) Plant E grows in water, produce flowers but it does not bear edible fruits.

26b) Both plant C and F produce flowers and it bears edible fruits.

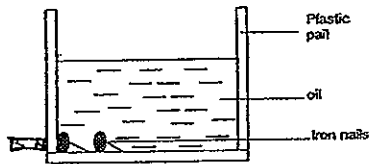
26c) Plant A and Plant D are non-flowering plant as they do not produce flowers.

27a) 6. Material C is stronger than material D so it can hold more numbers of metal balls than material D but it is weaker compared to material B so it holds lesser number of metal balls than material B.

27b) There were more scratches on A than B.

- 
- 28ai) Material P does not absorb the red-coloured water.  
28aii) Material Q absorbs the red-coloured water.  
28b) Q. Because when the baby pees, Material Q will absorb it.  
29a) Material A has strength, is able to float on water and is not flexible.  
29b) Material C is able to float on water but B cannot.  
29c) Yes, D is strong and flexible and a school bag should be strong and flexible.

30a)



30b) Move the magnet slowly upwards.

31a) N-S direction.

31b) The poles under magnet and on top of B are the same. Unlike poles repel.

32ai) True

32aii) False

32b) Because object Z can get attracted to the magnet.