

METHODIST GIRLS' SCHOOL  
Founded in 1887



MID-YEAR EXAMINATION 2013  
PRIMARY 3  
SCIENCE

BOOKLET A

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

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

Class: Primary 3. \_\_\_\_\_

Date: 16 May 2013

This booklet consists of 15 printed pages including this page.

For each question from 1 to 30; four options are given. One of them is the correct answer. Make your choice and shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

(60 marks)

- 1 The table below shows the characteristics of 3 things, P, Q and R

Thing	Will grow	Respond to changes	Will move
P	√	X	X
Q	√	√	√
R	X	√	√

Which of the above could be a living thing?

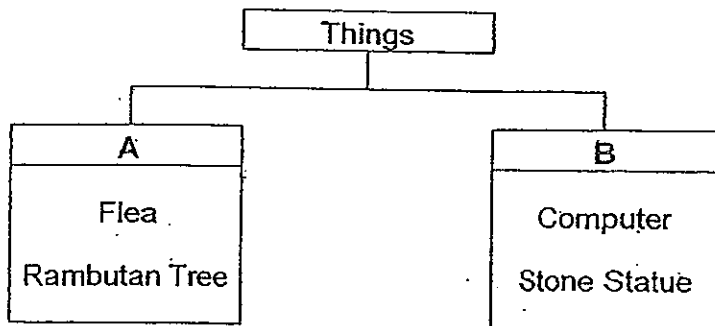
- (1) P only
  - (2) Q only
  - (3) P and R only
  - (4) Q and R only
- 2 Mary observed her kitten for one hour. Which of her observations does not show that her kitten is a living thing?
- (1) It drinks water.
  - (2) It has four legs.
  - (3) It purrs when cuddled.
  - (4) It runs and hides under a chair when it heard a loud thunder.

(Go on to the next page)

3 Jane saw a lizard on the table. She threw a book at it and observed that the lizard dropped its tail immediately. What does this show about living things?

- (1) Living things die.
- (2) Living things grow.
- (3) Living things reproduce.
- (4) Living things respond to changes.

4 Study the table below carefully.



Which of the following headings best represent headings A and B?

	A	B
(1)	Can produce sounds	Cannot produce sounds
(2)	Can respond to changes	Cannot respond to changes
(3)	Can make their own food	Cannot make their own food
(4)	Can move freely from place to place	Cannot move freely from place to place

(Go on to the next page)

5 Why do animals move from place to place?

D: To escape from dangers.

E: To become food for others.

F: To look for food, water and shelter.

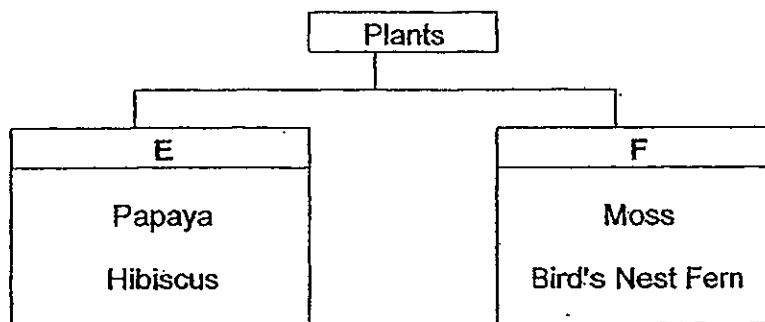
(1) D and E only

(2) D and F only

(3) E and F only

(4) D, E and F

6 The diagram below shows how plants can be classified.



Which one of the following is the most suitable heading for E and F?

	E	F
(1)	Non-poisonous	Poisonous
(2)	Bears flowers	Does not bear flowers
(3)	Can make food	Cannot make food
(4)	Reproduces by spores	Reproduces by seeds

(Go on to the next page)

7 Mrs Tan has some flowering plants in her garden. She is able to tell that they are flowering plants because the plants have \_\_\_\_\_.

- (1) fruits
- (2) woody stems
- (3) spores on their leaves
- (4) the leaves have different shapes and edges

8 The picture shown below is a cactus plant that can be found in a desert.



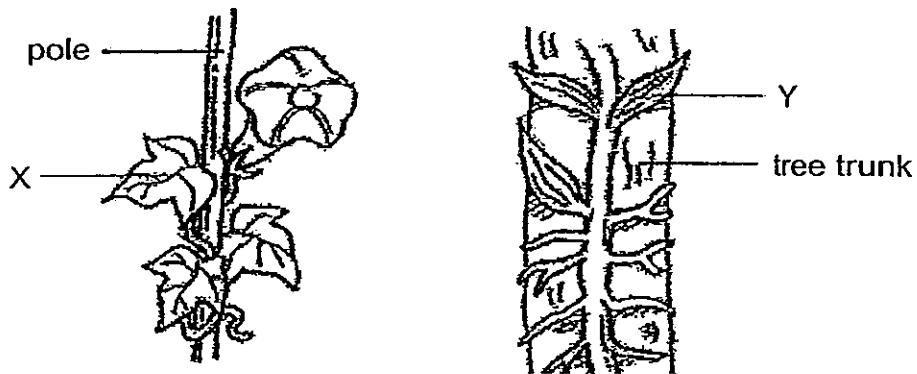
Which of the following statement(s) is/ are true about the cactus?

- A: It is a type of fern.
- B: It can make its own food.
- C: It does not need water to stay alive.

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

(Go on to the next page)

- 9 Below are two green plants, X and Y, found growing in a garden.



Which one of the following statements about plants, X and Y, is correct?

- (1) Both X and Y cannot use their leaves make their own food.
  - (2) Both X and Y uses their stems to climb up supports to get sunlight.
  - (3) X uses its flowers while Y uses its leaves to make food.
  - (4) X uses its stem while Y uses its roots to climb up supports.
- 10 Three girls made the following statements about the roots of plants:

Anne : Some roots can be eaten.

Belle : All roots grow underground.

Cindy : Some roots grow above the ground and some roots grow underground

Whose statement(s) is/are correct?

- (1) Anne only
- (2) Belle only
- (3) Anne and Cindy only
- (4) Belle and Cindy only

(Go on to the next page)

- 11 Amy kept an equal number of caterpillars in each of the 4 containers. The conditions in each container are shown below.

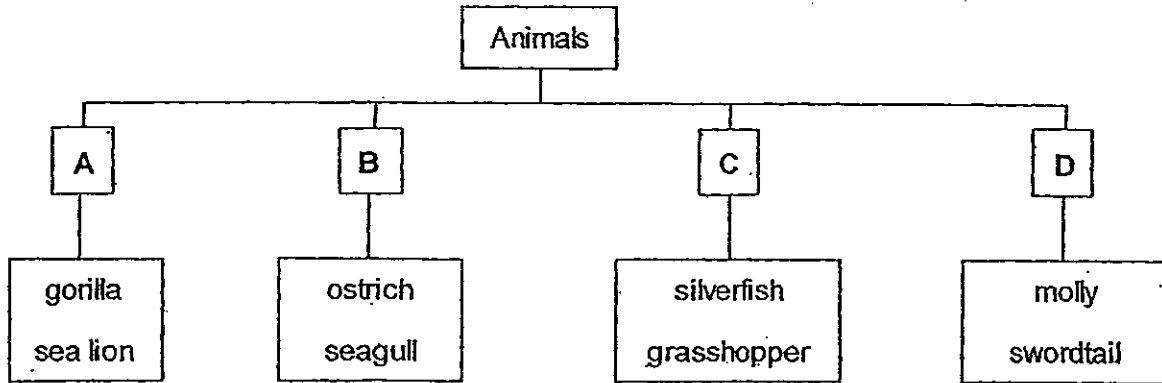
Container	Has air?	Has food?	Has water?	Has sunlight?
W	Yes	Yes	Yes	No
X	Yes	No	Yes	Yes
Y	Yes	Yes	No	Yes
Z	No	Yes	Yes	Yes

After 1 week, the caterpillars in 3 of the containers were all dead. In which container are the caterpillars most likely to survive?

- (1) Container W
  - (2) Container X
  - (3) Container Y
  - (4) Container Z
- 12 Which of the following characteristics describe the duck-billed platypus as a mammal?
- A: It has hair.  
B: It lays eggs.  
C: It lives on land.  
D: It feeds its young with milk.
- (1) A and B only
  - (2) C and D only
  - (3) A and D only
  - (4) B and C only

(Go on to the next page)

- 13 Look at the classification diagram shown below:



In which group will you place a spiny anteater?

- (1) A
  - (2) B
  - (3) C
  - (4) D
- 14 Which of the following is not true of all mammals?

M: They live on land

N: They suckle their young

O: They have hairs on their bodies

P: They give birth to their young alive

- (1) M only
- (2) M and N only
- (3) N and O only
- (4) M and P only

(Go on to the next page)



- 15 Sally recorded her observations of two animals, Animal S and Animal T, in the table below:

Observations	Animal S	Animal T
Breathe with gills	Yes	No
Has 2 antennae	No	Yes
Has 3 body parts	No	Yes

What could Animal S and Animal T be?

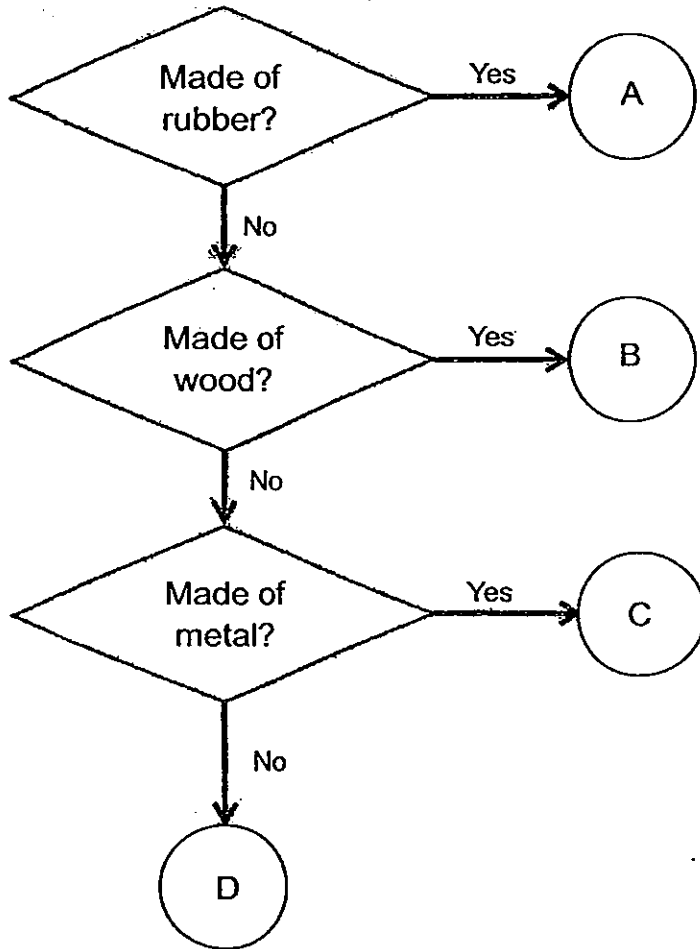
	Animal S	Animal T
(1)	Shark	Bee
(2)	Clownfish	Spider
(3)	Pelican	Housefly
(4)	Kingfisher	Dragonfly

- 16 Which of the following objects are placed in the correct heading?

	Living things	Non-living things	
		Never alive	Once alive
(1)	Mushroom	Wooden table	Silk scarf
(2)	Silk scarf	Mushroom	Aluminium pot
(3)	Aluminium pot	Silk scarf	Mushroom
(4)	Mushroom	Aluminium pot	Silk scarf

(Go on to the next page)

- 17 Study the flow chart carefully and identify A, B, C and D correctly.



	A	B	C	D
(1)	Nail	Eraser	Tyre	Toothpick
(2)	Toothpick	Nail	Eraser	Tyre
(3)	Tyre	Toothpick	Nail	Blouse
(4)	Eraser	Tyre	Toothpick	Nail

(Go on to the next page)

- 18 Marie found two objects. She did some tests and she recorded her observations in the checklist below.

	S	T
Waterproof	✓	×
Soft	✓	✓
Does not tear easily	✓	✓
Absorbent	×	✓

Which of the following correctly shows what S and T are made of?

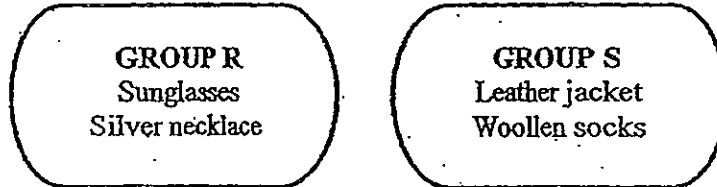
	S	T
(1)	T-shirt	Raincoat
(2)	T-shirt	Sponge
(3)	Sponge	T-shirt
(4)	Raincoat	T-shirt

- 19 Which of the following is grouped correctly?

	Animal	Plant	Fungi	Micro-organism
(1)	Earthworm	Fern	Bacteria	Mould
(2)	Earthworm	Mould	Fern	Bacteria
(3)	Earthworm	Fern	Mould	Bacteria
(4)	Bacteria	Fern	Mould	Earthworm

(Go on to the next page)

- 20 Sue tried to classify some objects into two groups as shown below. Why did she place the leather jacket and woollen socks in **Group S**?



- A: They are flexible.  
B: They are waterproof.  
C: They are mainly made from animals.  
D: They are made from plants and animals:

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

(Go on to the next page)

21. David did an experiment with the eraser and the pencil as shown below. He used a pencil to poke holes in an eraser.

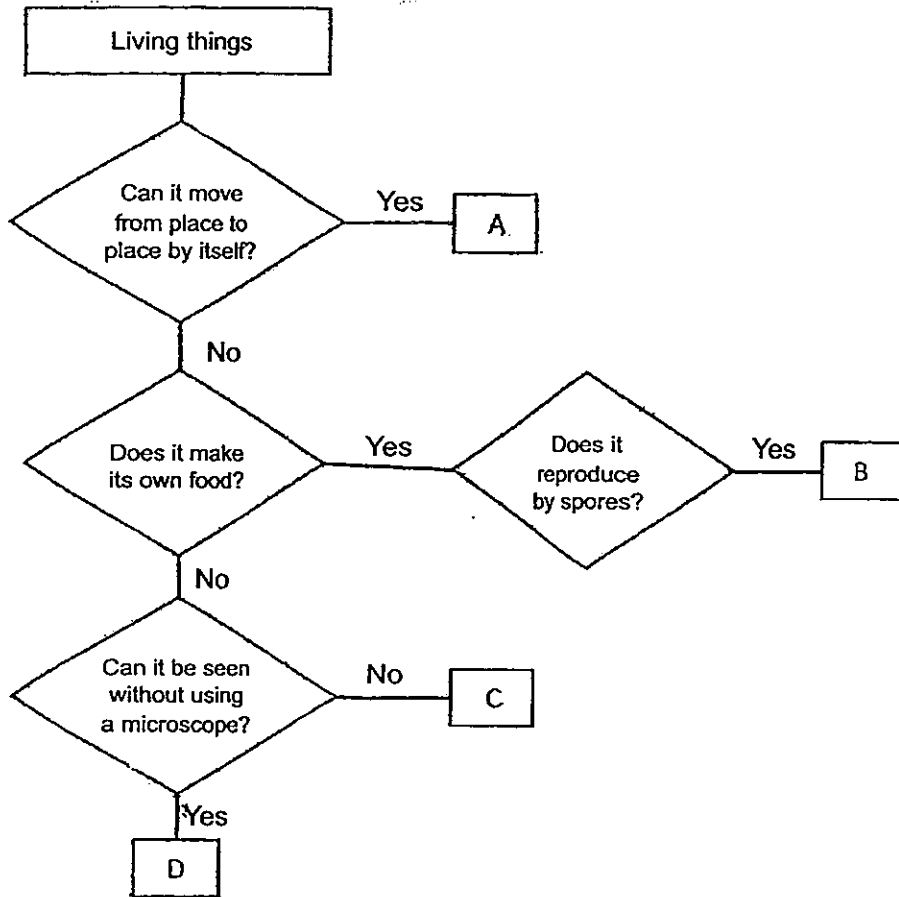


What can you conclude about the objects in David's experiment?

- (1) The pencil is lighter than the eraser.
  - (2) The pencil is harder than the eraser.
  - (3) The pencil is heavier than the eraser.
  - (4) The eraser is more flexible than the pencil.
22. Which of the statement(s) is/are true about fungi?
- A All fungi are micro-organisms.
  - B Fungi cannot make their own food.
  - C Fungi need air, food and water to survive.
  - D All fungi are harmful as they cause diseases to plants and animals.
- (1) B and C only
  - (2) C and D only
  - (3) A, B and C only
  - (4) A, C and D only

(Go on to the next page)

Study the diagram carefully and answer questions 23, 24 and 25.



23 Which of the following represents non-flowering plants?

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

(Go on to the next page)

24 Which of the following represents the organism found in yogurt?

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

25 Which of the following letters represents the mushroom?

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

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MID-YEAR EXAMINATION 2013  
PRIMARY 3  
SCIENCE

BOOKLET B

Total Time for Booklets A and B: 1 hour 45 minutes.

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

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

Class: Primary 3. \_\_\_\_\_

Date: 16 May 2013

<b>Booklet A</b>	<b>/ 50</b>
<b>Booklet B</b>	<b>/ 40</b>
<b>TOTAL</b>	<b>/ 90</b>

This booklet consists of 12 printed pages including this page



For questions 26 to 37, write your answers in the space provided.

(40 marks)

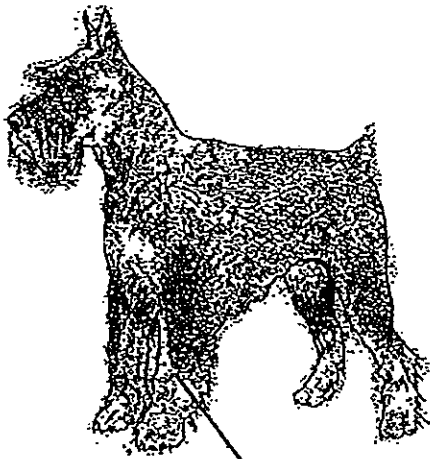
- 26 Betty placed 150 g of food and 150 ml of water in three containers E, F and G. She recorded the amount of food and water left at the end of the week:

Container	Amount of food (g)	Amount of water (ml)
E	150	150
F	58	38
G	53	42

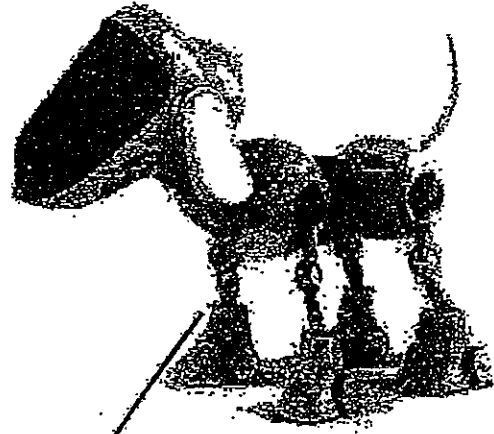
- (a) Based on the above information, which container(s) contain(s) living things? (1m)
- \_\_\_\_\_
- (b) What does this experiment tell you about living things? (1m)
- \_\_\_\_\_
- \_\_\_\_\_
- (c) If Betty continues the experiment for another 3 days, what will be the final amount of food and water left in Container E if the rate of evaporation of water is not considered in this experiment? (1m)
- \_\_\_\_\_
- \_\_\_\_\_

(Go on to the next page)

- 27 Ben has a pet dog, Lucky and a robotic dog, Robo. He says that Lucky is a living thing but Robo is a non-living thing.



Lucky



Robo

- (a) How did he make this conclusion? List two characteristics of living things that Lucky has but Robo does not have. (2m)

(i) \_\_\_\_\_

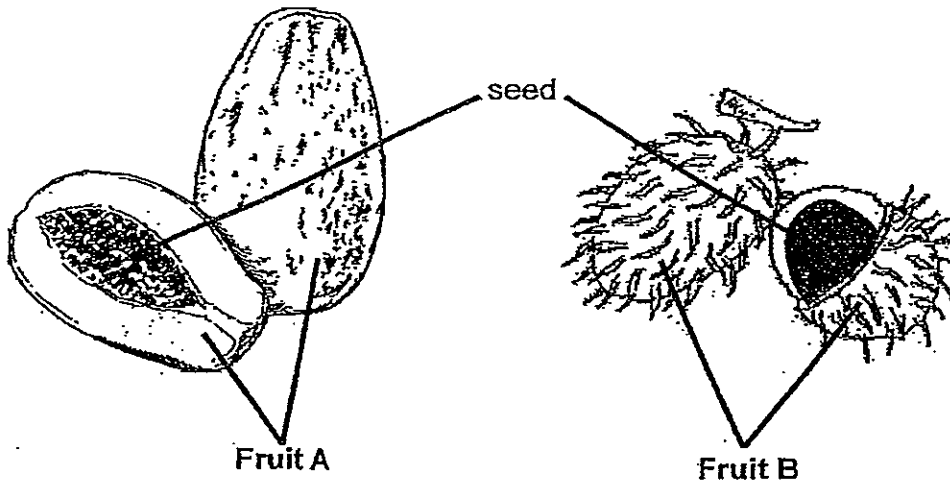
(ii) \_\_\_\_\_

- (b) Robo displays some characteristics of living things. Name one of the characteristics. (1m)

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

(Go on to the next page)

28 Refer to the pictures of the two fruits shown below:



- (a) Based only on your observation of the fruits in the picture shown above, write down one similarity and one difference between the two fruits. (Do not compare shapes, size or colours). (2m)

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

\_\_\_\_\_

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

\_\_\_\_\_

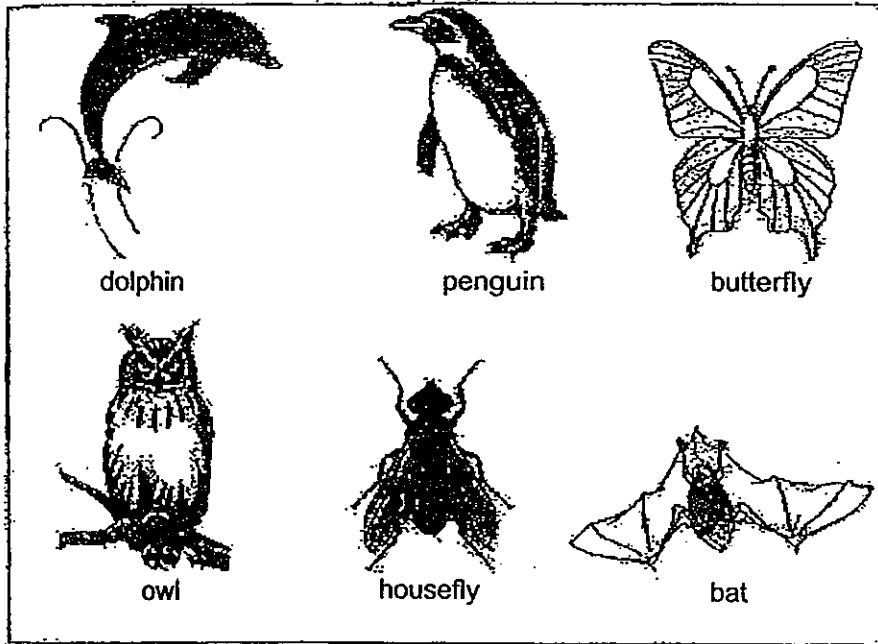
- (b) What do you think the seed is used for? (1m)

\_\_\_\_\_

\_\_\_\_\_

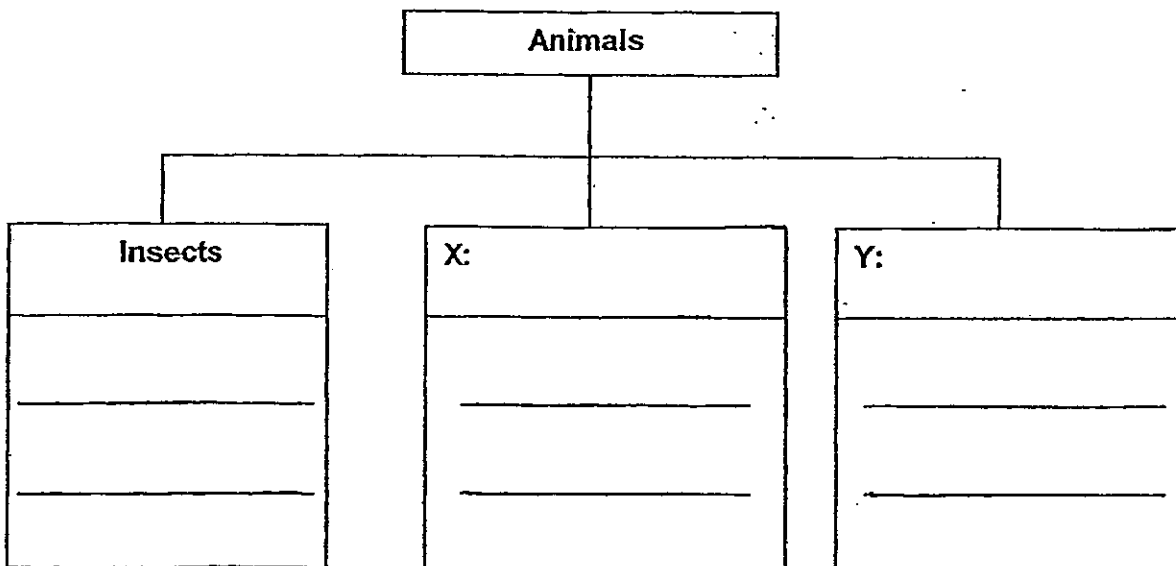
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30 Look at the animals shown below. They are not drawn to scale.



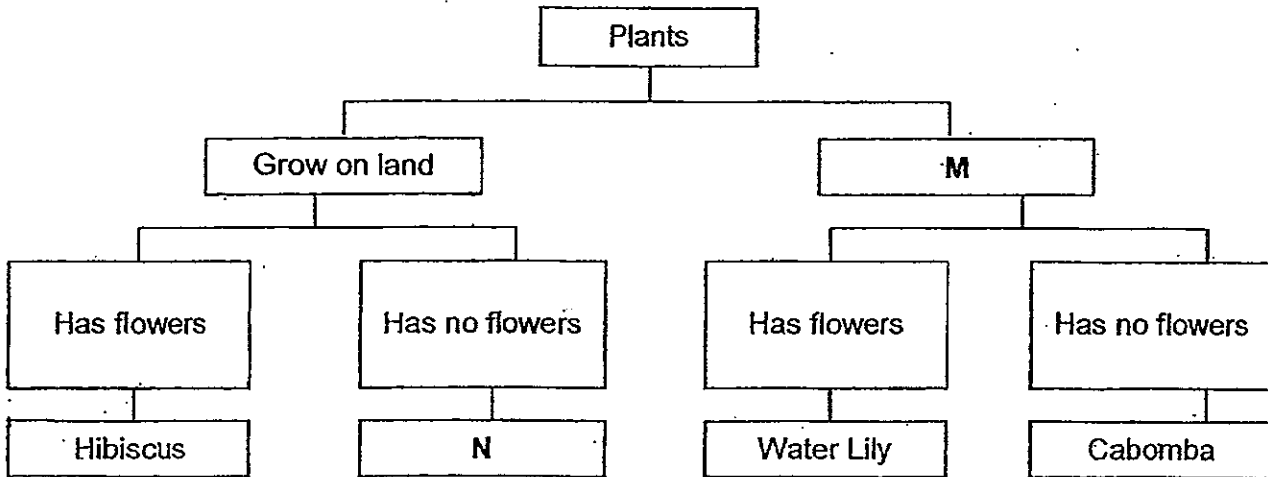
Complete the classification table shown below:

- (a) Put in appropriate headings for X and Y. (1m)
- (b) Classify the animals shown above under the 3 headings. (3m)



(Go on to the next page)

29 Study the classification chart shown below:



(a) Suggest a suitable heading for **M**. (1m)

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(b) Based on the classification chart above, describe **N**. (1m)

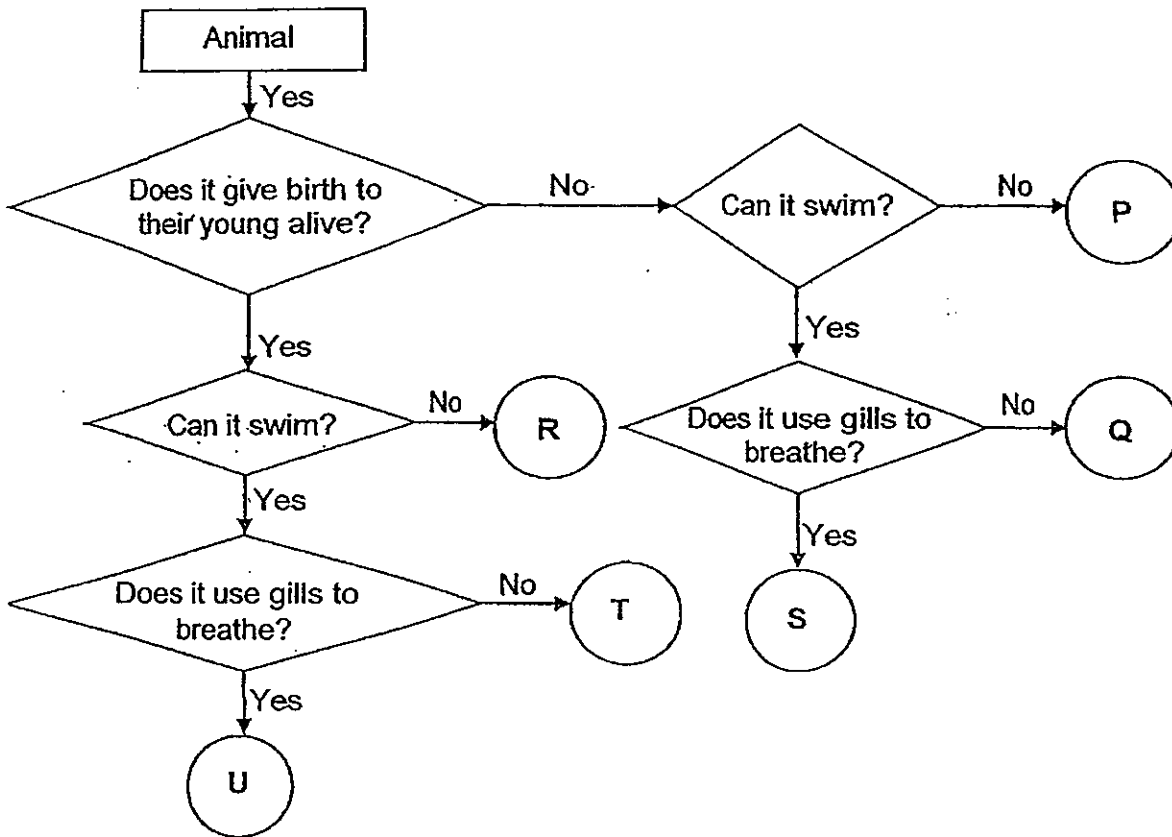
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(c) What could **N** possibly be? Give one possibility. (1m)

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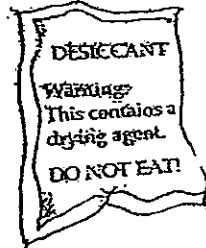
31 Below is a flowchart showing the characteristics of some animals:



- (a) From the flowchart, state two similarities between Animal U and Animal S. (1m)
- \_\_\_\_\_
- \_\_\_\_\_
- (b) From the flowchart, state one difference between Animal T and Animal Q. (1m)
- \_\_\_\_\_
- (c) Give one example of Animal R and one example of Animal U. (2m)
- \_\_\_\_\_

(Go on to the next page)

- 32 Chloe opened a packet of cookies and she found a packet of desiccant (drying agent) among the cookies. The desiccant is shown in the picture below.



How can the packet of drying agent prevent the cookies from going bad?

(2m)

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- 33 Study the list of objects below.

Aluminium foil	Brick
Spectacle lens	Tracing paper
Frosted glass	Plastic food wrap

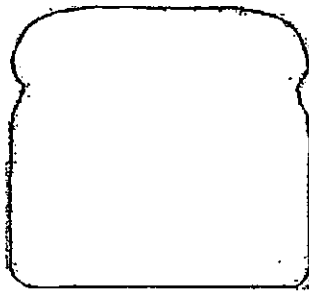
Classify the objects into the table below.

Transparent	Translucent	Opaque

(Go on to the next page)

34 Mrs Li prepared a sandwich for Raine to bring to school. However, Raine had forgotten to eat the sandwich at recess and it was left in her bag. A few days later, Mrs Li took out the sandwich from Raine's bag and it had a foul smell.

- (a) Draw in the diagram below what Mrs Li would see on the sandwich after a few days. (1m)

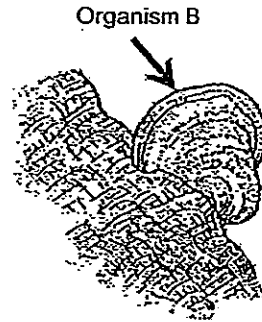
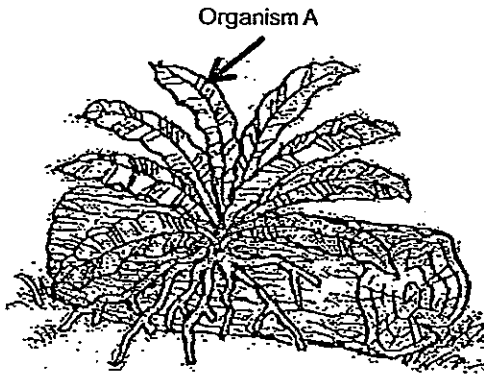


- (b) What is the organism that you drew in (a) called? (1m)
- 

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35 Study the pictures below carefully.



(a) Identify the organisms shown.

Organism A - \_\_\_\_\_ (1m)

Organism B - \_\_\_\_\_ (1m)

(b) State one similarity between the two organisms. (1m)

\_\_\_\_\_

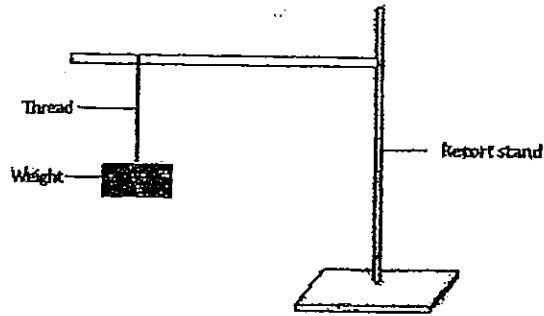
(c) State one difference between the two organisms. (1m)

\_\_\_\_\_

\_\_\_\_\_

(Go on to the next page)

36 Tasha set up an experiment as shown below.



She increased the number of weights to the thread just before it broke.

(a) What property of the thread was Tasha trying to find out? (1m)

---

(b) Tasha decided to test the threads of different materials that are of similar length and thickness. Afterwards, she also tested if the threads were also waterproof. Her observations were recorded in the table below.

	Thread P	Thread Q	Thread R	Thread S
Number of weights before the thread broke	11	27	25	5
Waterproof	Yes	No	Yes	No

From the observations, which thread would you use as a fishing line?

(1m)

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(c) Explain your answer for part (b). (2m)

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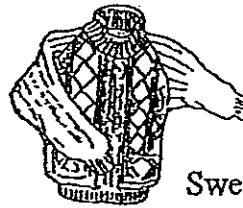
37 Marlin had the following clothing in his cupboard.



Singlet



Raincoat



Sweater

(a) Complete the table below with the material used to make each clothing.

Do not use fabric as your answer and no answer should be repeated.

(2m)

Top	Singlet	Raincoat	Sweater
Material			

(b) Which of the object (s) shown does not come from plants? (1m)

\_\_\_\_\_

(c) Give two reasons to explain why the singlet is suitable to wear on a hot and sunny day? (2m)

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



Methodist Girls' School Mid-Year Examination 2013 P3 Science

Booklet A

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
2	2	4	2	2	2	1	1	4	3	1	3	1	4	1
16	17	18	19	20	21	22	23	24	25					
4	3	4	3	2	2	1	2	3	4					

Booklet B

- 26 a F and G  
 b Living things need food and water to survive.  
 c The amount of food and water would remained unchanged.
- 27 a (i) Lucky has fur while robo is made up of man-made material.  
 (ii) Lucky need food and water to survive while robo does not need food and water.  
 (Or Lucky need to breathe and take in oxygen while robo does not breathe.)  
 b Robo is able to move on its own, like living things, when powered.
- 28 a Similarity: Both Fruit A and B contain one seed.  
 Difference: Fruit A has a smooth outer covering while Fruit B has hair-like hooks on its outer covering.  
 b The seed is used to reproduce into young plants by the parent plant.
- 29 a Grow in water b N grows on land and has no flowers.  
 c Fern / mosses (accept any one)

- 30 a Birds / Mammals  
 b

Insects	Mammals	Birds
Housefly	Bat	Penguin
Butterfly	Dolphin	Owl


(Note: the animals must be arranged correctly under each of the above headings.)

- 31 a Both animal U and S can swim.  
 b T gives birth to young alive while Q does not give birth to its young alive.  
 c R: rabbits U: guppy (accept any reasonable answers for R and U)
- 32 Desiccant removes the moisture found in the sealed packet of cookies hence preventing the growth of living things like bacteria and moulds that required moisture to survive and grow, to make the cookies go bad.

33

Transparent	Translucent	Opaque
Spectacle lens Plastic food wrap	Frosted glass Tracing paper	Aluminium foil Brick



- 34 a  b Mould (mold)
- 35 a Organism A – Fern Organism B – Fungus  
 b Both organisms reproduce by spores.  
 c Organism A contains chlorophyll and can make its own food via photosynthesis while organism B does not contain chlorophyll and cannot make its own food.

- 36 a Strength of the thread. b Thread R  
 c Thread R is the strongest waterproof thread that can be used as a fishing line.

37

Top	Singlet	Raincoat	Sweater
Material	Cotton	Plastic	Wool

- b Raincoat c The singlet is made of a thin material and does not trap excessive heat.

