

Semestral Assessment 2

Primary Three

2016

**SCIENCE
(Booklet A)**

Name: _____ ()

Class: Primary 3 _____

Date: 25 October 2016

Parent's Signature: _____

48 Marks

Total Time for Booklet A and B: 1h 30 min

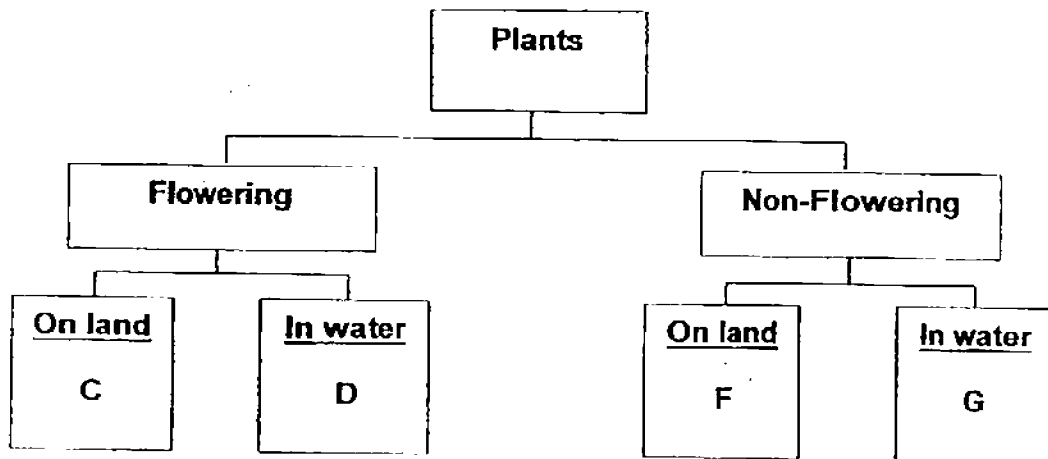
INSTRUCTIONS TO CANDIDATES

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

For each question from 1 to 24, four options are given. One of them is the correct answer. Shade your choice (1, 2, 3, or 4). Shade your answer on the Optical Answer Sheet.

(48 marks)

- 1 Study the classification diagram below.



Joshua sees a red flower in the school field and he wants to classify it into the correct category as shown in the classification diagram above.

Which one of the letters correctly describes the red flower Joshua sees?

- (1) C
- (2) D
- (3) F
- (4) G

- 2 Four children described the things that they have seen.

Ali:	The bus cannot move anymore. It has died.
Tim:	My cat purrs when you pat its head. It can respond to changes.
Lily:	My plant's height changed from 3cm to 5cm. It shows signs of growth.
Siti:	The leaves are rustling in the wind. They are able to move on their own.

Whose statements are correct?

- (1) Ali and Siti only
- (2) Ali and Lily only
- (3) Tim and Siti only
- (4) Tim and Lily only

3 Which one of the following statements about non-living things is correct?

- (1) They can have young.
- (2) They respond to changes around them.
- (3) They can move from place to place all by themselves.
- (4) They may have come from things that were once alive.

4 The diagrams below show a mushroom and some bacteria.



mushroom



bacteria

What is one similarity between the mushroom and the bacteria?

- (1) They reproduce by seeds.
- (2) They can make their own food.
- (3) They do not need water to survive.
- (4) They respond to changes in the surrounding.

5 The classification table below shows some materials and where they come from. Which set is correct?

	From animals	From plants
(1)	Silk	Plastic
(2)	Wool	Cotton
(3)	Gold	Paper
(4)	Rubber	Cotton

- 6 Amirah wants to bring a bottle to school. She has chosen to bring a plastic bottle instead of a glass bottle as she will be carrying the water bottle with her everywhere she goes.

A plastic bottle is a better choice than a glass bottle because _____.

A	it is lighter.
B	it is waterproof.
C	it can float on water.
D	it does not break easily.

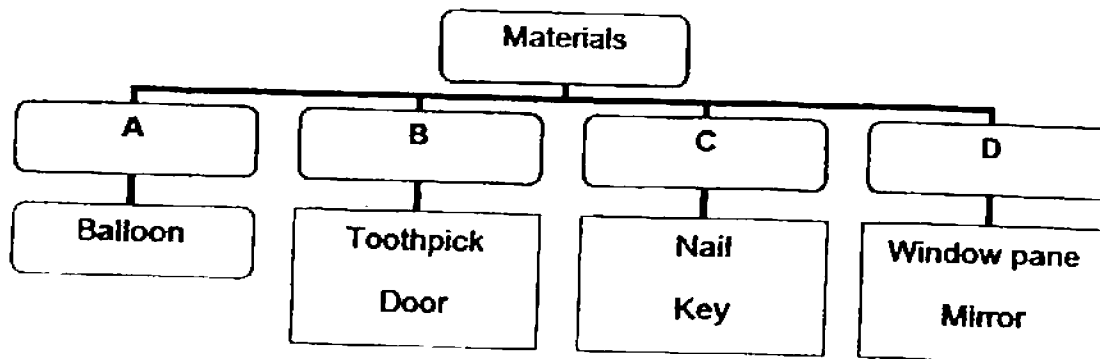
Which of the above statements are correct?

- (1) A and B
 (2) B and C
 (3) C and D
 (4) A and D
- 7 Jolie is a fashion designer. She wants to buy a material to produce a T-shirt suitable for joggers in a hot country. Which material should she buy? (A tick (✓) represents the presence of such characteristics in the material.)

Material	Characteristics		
	Waterproof	Light	Flexible
A	✓		
B		✓	✓
C	✓		✓
D		✓	

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

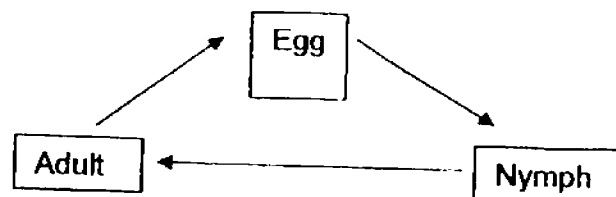
- 8 Study the classification diagram below.



Which of the following correctly shows what headings A, B, C and D can be?

	A	B	C	D
(1)	Plastic	Metal	Ceramic	Wood
(2)	Ceramic	Plastic	Wood	Rubber
(3)	Rubber	Wood	Metal	Glass
(4)	Rubber	Metal	Glass	Plastic

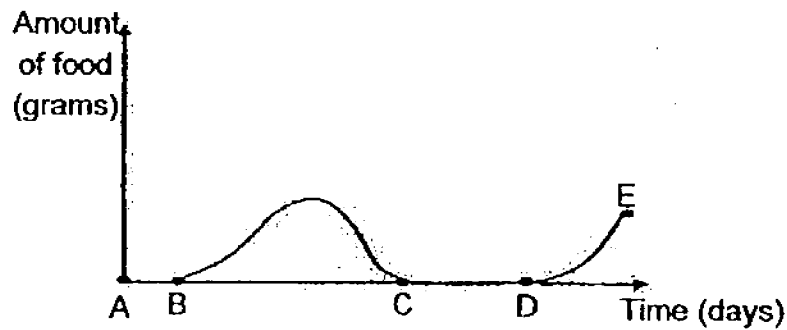
- 9 The diagram below shows the life cycle of an animal.



Which animal is likely to have the life cycle as shown above?

- (1) Frog
- (2) Butterfly
- (3) Cockroach
- (4) Mealworm beetle

- 10 The graph shows the amount of food that is eaten at different stages of the life cycle of a butterfly.



In which of the following parts of the graph is the butterfly in its pupa stage?

- (1) A to B
 - (2) B to C
 - (3) C to D
 - (4) D to E
- 11 The diagrams below show the young of a grasshopper, X, and the young of mosquito, Y.



X



Y

Which one of the following best describes X and Y?

- (1) Both X and Y have wings.
- (2) X lives in water but Y lives on land.
- (3) X looks like its parent but Y does not look like its parent.
- (4) X goes through a four-stage life cycle but Y goes through a three-stage life cycle.

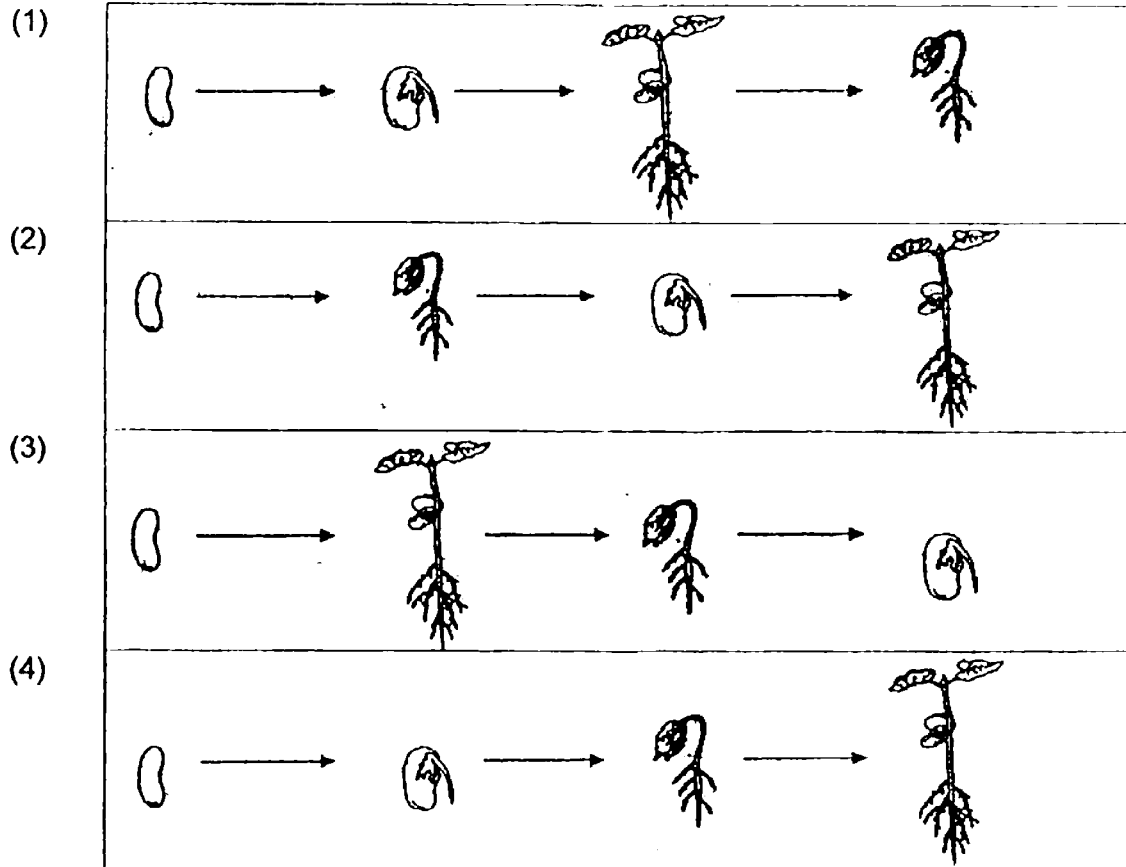
- 12 In the table below, W, X and Y represent characteristics of the animals. (A tick (✓) represents the presence of such characteristics in the animals.)

	W	X	Y
Mosquito	✓	✓	
Cockroach	✓		✓
Grasshopper	✓		✓
Chicken	✓		✓

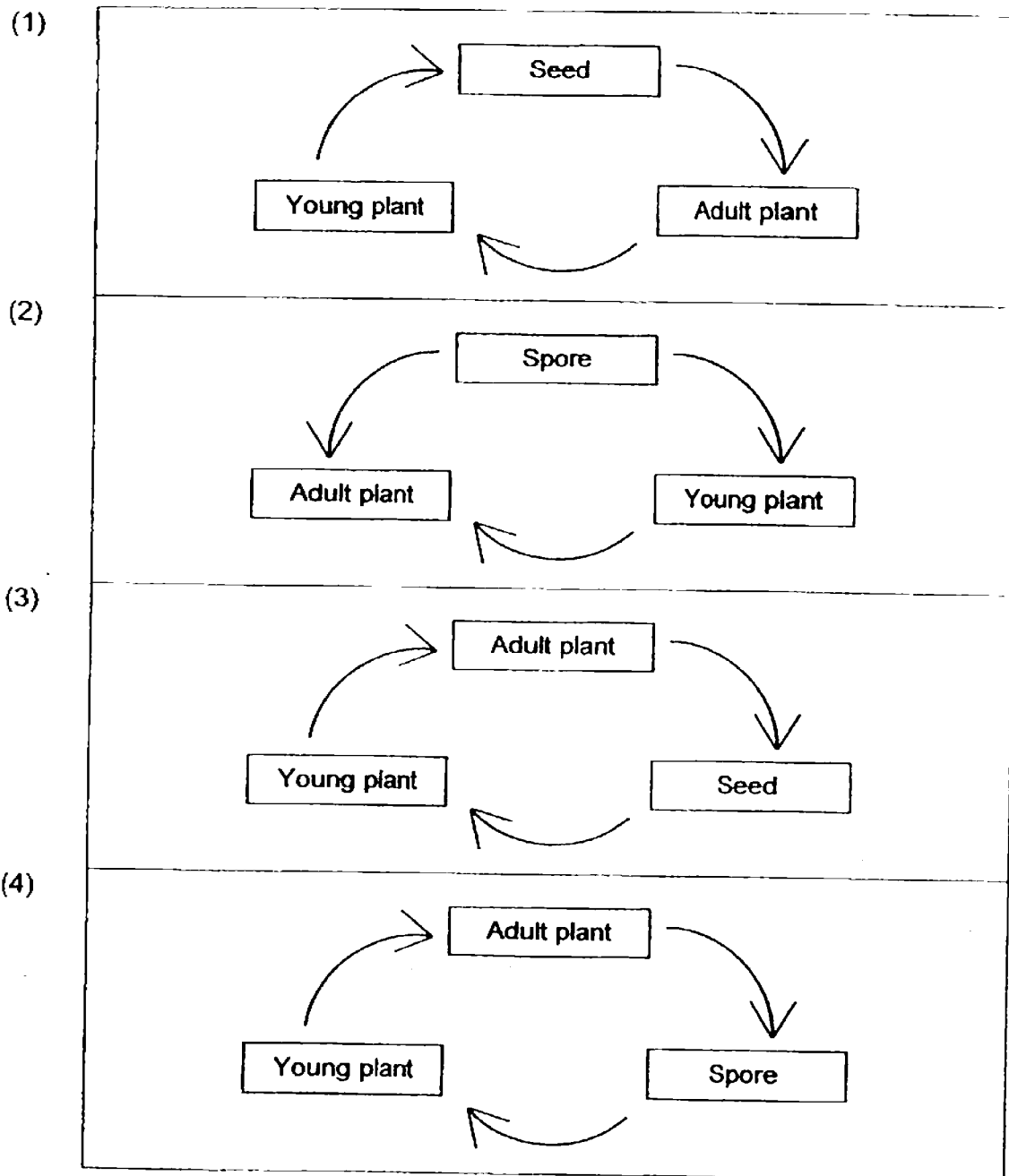
Which of the following do W, X and Y represent?

	W	X	Y
(1)	Lay eggs	Four stages in its life cycle	Three stages in its life cycle
(2)	Lay eggs	Three stages in its life cycle	Four stages in its life cycle
(3)	Young looks like the adult	Four stages in its life cycle	Three stages in its life cycle
(4)	Young does not look like the adult	Three stages in its life cycle	Four stages in its life cycle

- 13 Which one of the following diagrams correctly shows the stages of growth of a plant from a seed?



14 Which one of the following correctly shows the life cycle of a flowering plant?



15 Which one of the following statements about life cycle is incorrect?

- (1) It shows how a living thing grows.
- (2) It must have the egg stage and the adult stage.
- (3) It shows the order of the different stages in the life cycle.
- (4) It is a pattern that repeats itself in the lives of living things.

16 Which of the following describes the function of the human digestive system?

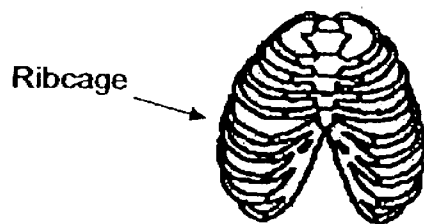
- (1) Transports digested food in the body.
- (2) Breaks down food into simple substances.
- (3) Supports the human body and gives its shape.
- (4) Carries oxygen and removes carbon dioxide from the body.

17 Which body systems in our bodies are involved in helping us run a 100 metres race?

A: Skeletal System	B: Muscular System
C: Respiratory System	D: Circulatory System

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

18 Look at the ribcage below. One of the purposes of the ribcage is to protect the lungs.



Which one of the following bones has the same protective function as the ribcage shown above?

(1)	Diagram of an arm bone, showing the humerus and radius. An arrow points from the word 'Arm' to the bone.	(2)	Diagram of the bones of a hand, showing the metacarpals and phalanges. An arrow points from the word 'Finger bone' to one of the bones.
(3)	A line drawing of a human skull in profile. An arrow points from the word 'Skull' to the skull.	(4)	Diagram of the bones of a leg, showing the femur and tibia. An arrow points from the word 'Thigh bone' to one of the bones.

19 Which of the following are uses of magnets?

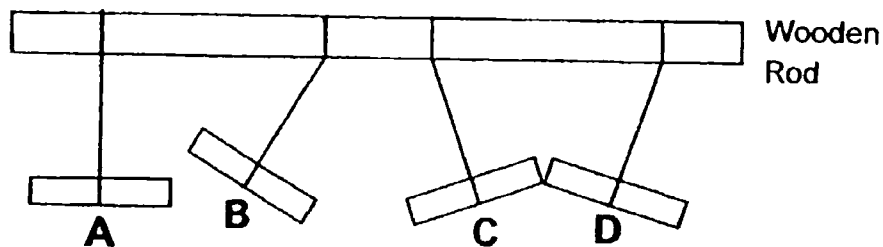
A	To find directions when lost
B	To keep the refrigerator doors tightly closed
C	To separate magnetic from non-magnetic materials

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

20 Which of the following statements about magnets is incorrect?

- (1) Magnets attract steel.
- (2) Magnetic pull is able to act from a distance.
- (3) A large magnet is always stronger than a small magnet.
- (4) An iron rod coiled with wire becomes magnetized when electricity flows through the wire.

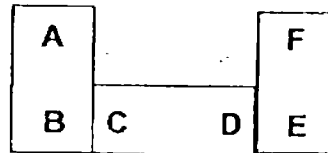
21 Study the diagram below carefully. A, B, C and D are four bars hung from a long piece of wooden rod.



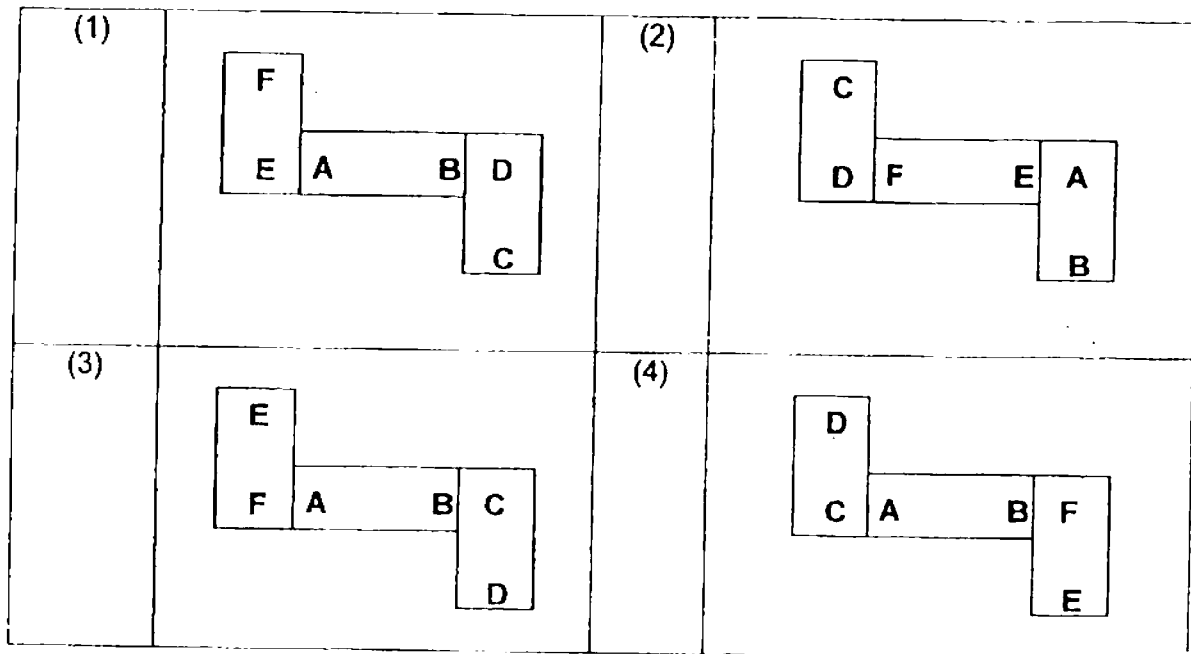
Which of the two bars are most likely to be magnets?

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

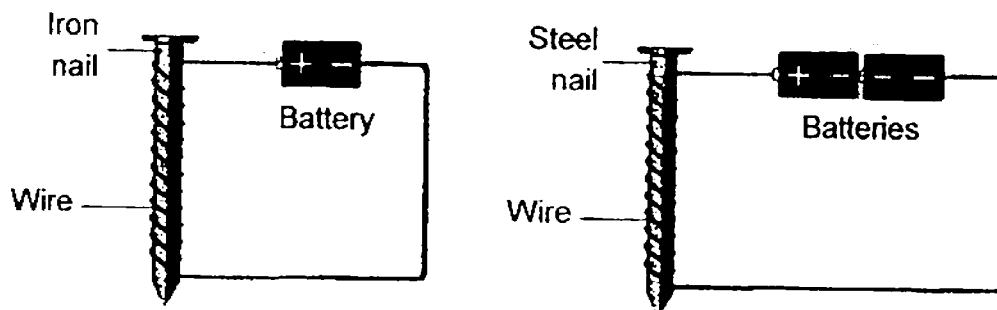
- 22 Devi arranged three magnets such that one end is attracted to another end as shown below.



Which of the following is also another possible arrangement?



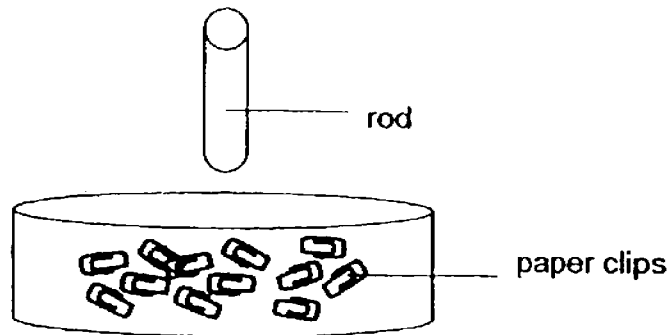
- 23 David wants to find out if the number of batteries will affect the magnetic strength of the electromagnet. He set up an experiment as shown below.



Why is his experiment incorrect?

- (1) The sizes of nails used are the same.
- (2) The types of nails used are not the same.
- (3) The number of batteries used is not the same.
- (4) The number of coils around the nails is not the same.

- 24 Lily tried to attract some paper clips using a rod as shown below. However, she was unable to do so.



Which of the following are possible reason(s) as to why she was unable to attract the paper clips?

- | |
|--|
| A: The rod is not a magnet. |
| B: The paper clips are made of non-magnetic material. |
| C: The rod, which is made of a magnetic material, has not been magnetised. |

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

End of Booklet A

Semestral Assessment 2

**Primary Three
2016**

**SCIENCE
(Booklet B)**

Name: _____ ()

Class: Primary 3 _____

Date: 25 October 2016

Parent's Signature: _____

Total Time for Booklet A and B: 1h 30 min

INSTRUCTIONS TO CANDIDATES

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

Paper	Marks	Scores
Booklet A	48	
Booklet B	32	
Total	80	

For questions 25 to 34, write your answers in this booklet.

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

(32 marks)

- 25 On Ali's birthday, his mother gave him a teddy bear. The bear could talk and sing when Ali pressed a button on it. It could crawl and also open and close its eyes when Ali pressed another button.

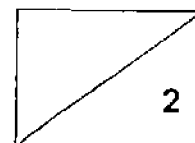


State two reasons why the the teddy bear cannot be a living thing. [2]

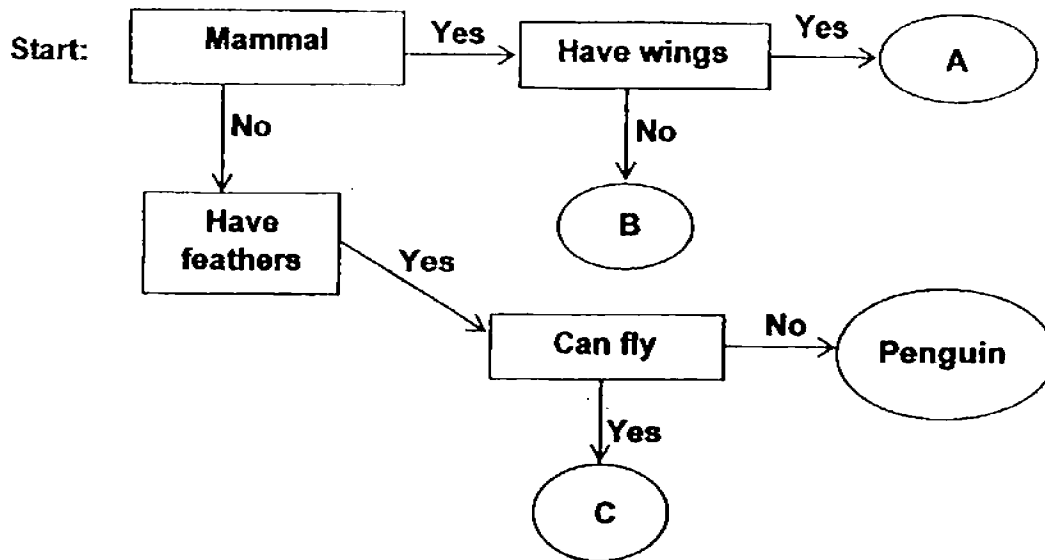
Reason 1: _____

Reason 2: _____

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26 Study the following flow chart carefully.



(a) Complete the table with the letters A, B and C.

You may use the letters more than once

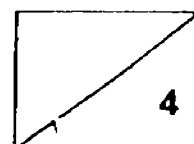
[2]

Animals	Tiger	Dolphin	Parrot	Bat
Letters				

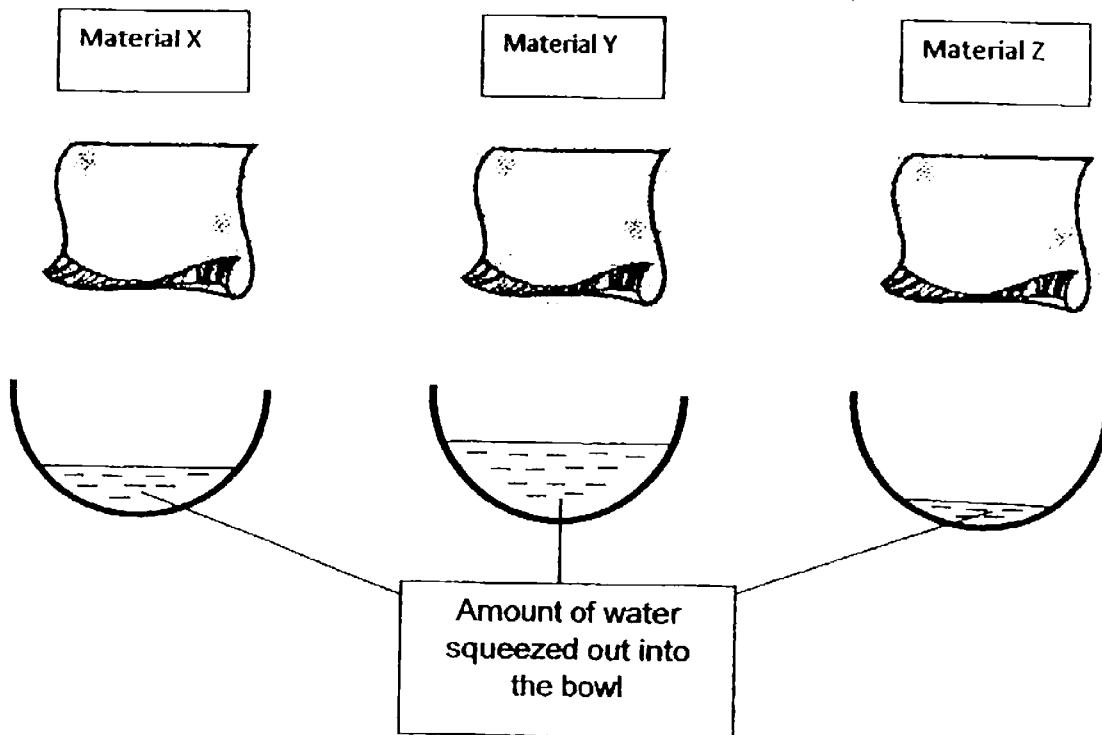
(b) Based on the flow chart, identify two characteristics of the penguin.

[2]

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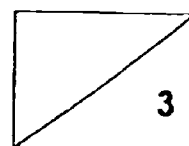


- 27 Siti had three pieces of cloth made of different materials. She had also prepared three beakers containing 500ml of water each. She soaked each cloth in each beaker of water for one minute. She then squeezed the water from the materials into three separate bowls. The results were shown in the diagram below.

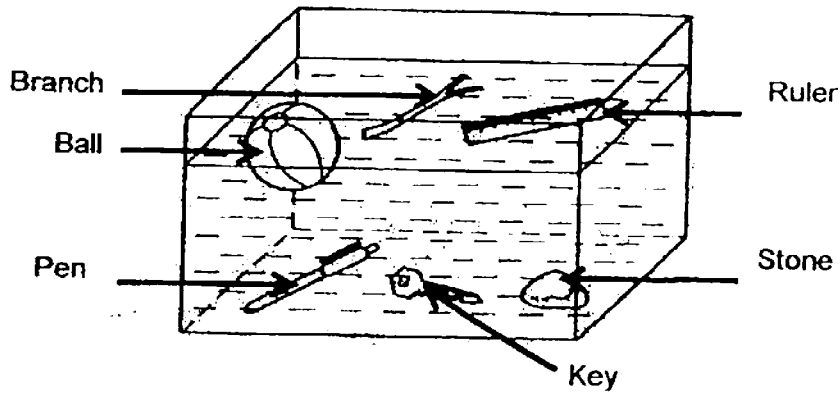


- (a) Which material absorbed the least water? [1]
- _____
- (b) Which material is best for cleaning up spills in the kitchen? [1]
- _____
- (c) Give a reason for your answer in (b). [1]
- _____
- _____

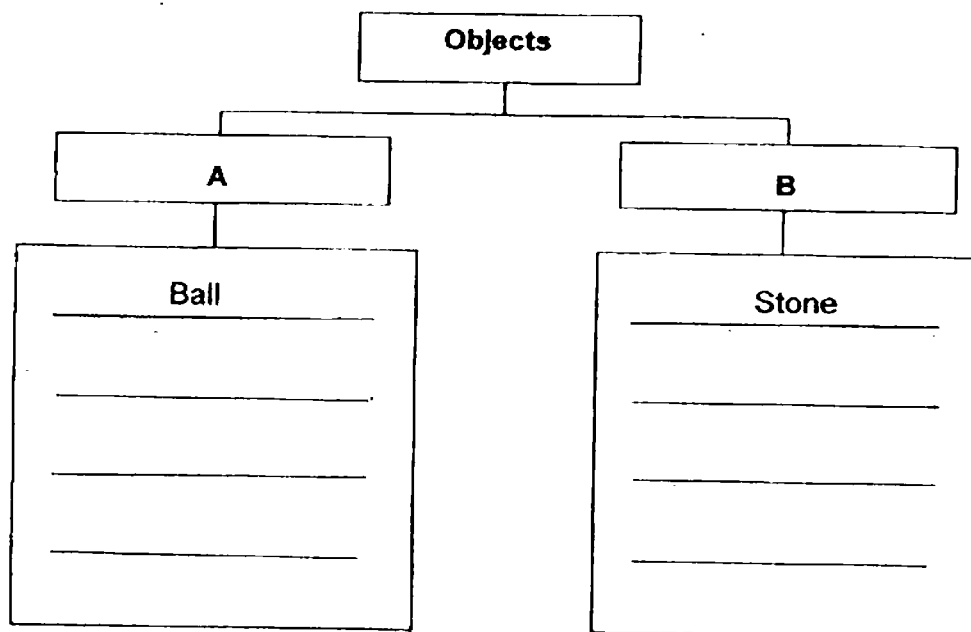
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- 28 Six objects were placed at the bottom of a tank of water at the start of an experiment. The diagram below shows their positions after one minute.



Based on the diagram, classify the remaining four objects into two groups in the table provided below. [2]

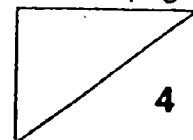


Give a suitable heading for A and B

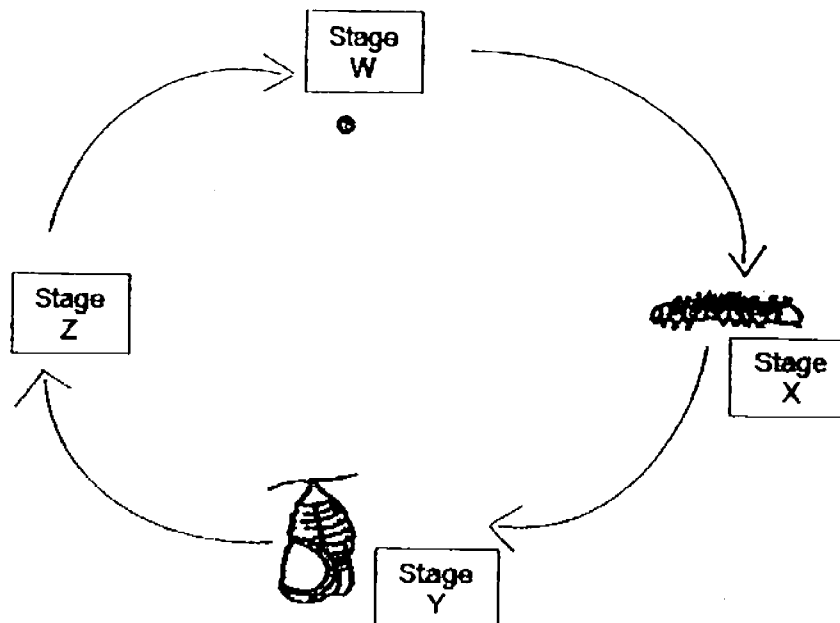
Heading for A: _____ [1]

Heading for B: _____ [1]

(Go on to the next page)

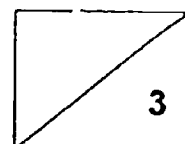


- 29 Susan studied the life cycle of an insect and drew a diagram to represent it as shown below.

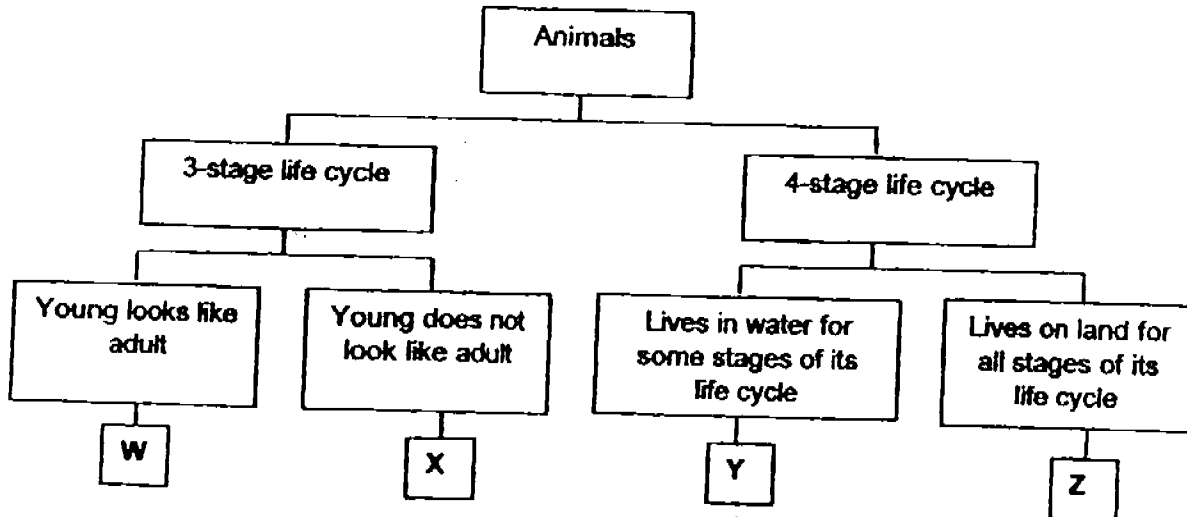


- (a) Name the stage marked Z. [1]
- _____
- (b) Susan observed that the insect has shed some dry skin at Stage X. Name the process that has taken place at this stage. [1]
- _____
- (c) Farmers use pesticides to get rid of the insect at Stage X. Explain why it is necessary for them to do that. [1]
- _____
- _____

(Go on to the next page)



30 Study the classification chart below carefully.



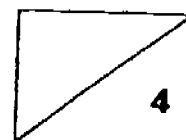
(a) From the classification chart above, describe the characteristics of animal Z. [2]

(b) Which letter, W, X, Y, or Z, represents each of the following animals? [2]

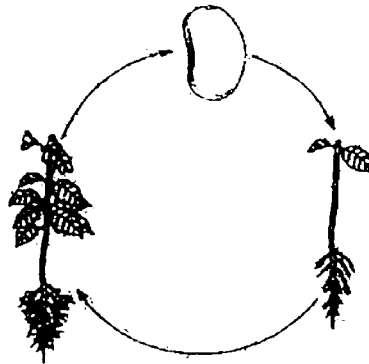
(i) Frog: _____

(ii) Mosquito: _____

(Go on to the next page)



31 Study the life cycle of plant X below.



Life cycle of plant X

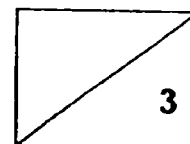
- (a) State one similarity between the life cycle of plant X and the life cycle of a grasshopper.

[1]

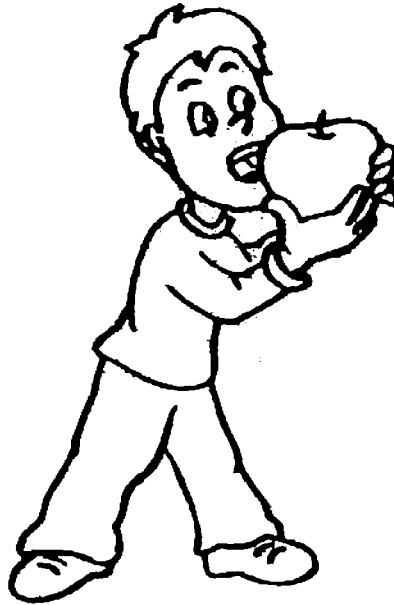
- (b) How are the adults of plant X and grasshopper different in the way they obtain their food?

[2]

(Go on to the next page)



- 32 The diagram below shows John eating an apple.

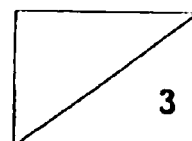


- (a) How do the teeth help in the digestion of the apple that he is eating? [1]

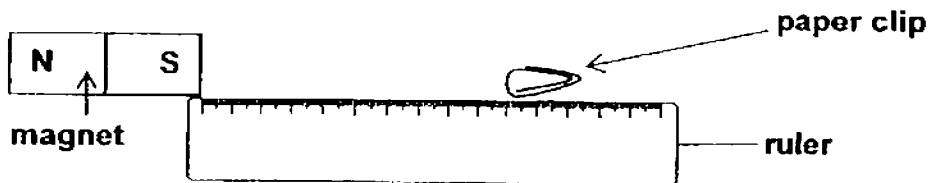
- (b) Name the digestive juice found in the mouth. [1]

- (c) Name another organ that produces digestive juice. [1]

(Go on to the next page)



- 33 Kevin wanted to find out how the strength of a magnet changed when it was hit with a hammer. He repeated the experiment by hitting the magnet different number of times. He then recorded the maximum distance the magnet would attract the paper clip from.



Number of times the magnet is hit with a hammer	The maximum distance the paper clip was attracted from (cm)
0	20
4	17
8	
12	8
16	2

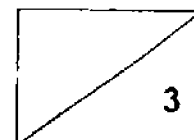
- (a) Kevin missed recording the distance when the magnet was hit eight times with a hammer. Write the distance the paper clip could be attracted from in the box above.

[1]

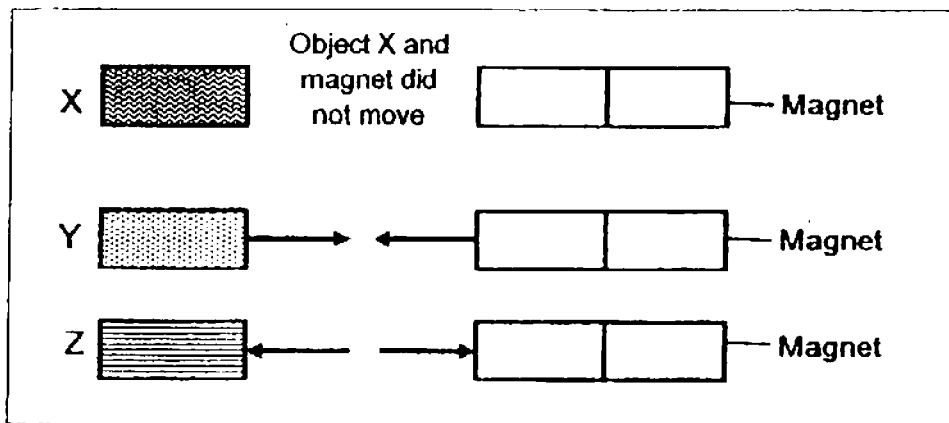
- (b) How was the strength of the magnet affected by the number of times it was hit?

[2]

(Go on to the next page)



- 34 Max placed three different objects – an iron bar, a magnet and a wooden block, near three magnets. The three objects were labelled X, Y and Z. When the three objects were brought near the magnets, they reacted to the magnets in different ways as shown below. The arrows represent the directions where the objects moved.



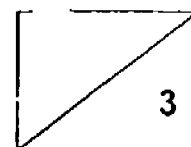
- (a) Based on the diagram, which one of the objects, X, Y or Z was the magnet?

Why?

[2]

- (b) Based on the diagram, which one of the objects, X, Y or Z was the wooden block? Why?

[1]



End of paper

YEAR : 2016
 LEVEL : PRIMARY 3
 SCHOOL : TEMASEK PRIMARY
 SUBJECT : SCIENCE
 TERM : SA2

Booklet A

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

Booklet B

Q25 Reason 1: The bear does not need air, food and water to survive.

Reason 2: It does not respond to changes.

Q26 (a)

Animals	Tiger	Dolphin	Parrot	Bat
Letters	B	B	C	A

(b) The penguin is not a mammal and it cannot fly.

- Q27
- (a) Material Z.
- (b) Material Y.
- (c) Material Y absorbs the most amount of water compare to the other material.

Q28

A	B
Ball	Stone
Branch	Key
Ruler	Pen

Heading for A : Float

Heading for B : Sink

- Q29
- (a) Adult stage.
 - (b) Moulting / Molting
 - (c) They are pest to the farmers.
- Q30
- (a) Animal Z has a 4-stage life cycle and it lives on land for all stages of its life cycle.
 - (b)
 - (i) Frog : Y
 - (ii) Mosquito : Y
- Q31
- (a) Both the grasshopper and plant X has a 3-stage life cycle.
 - (b) Adults of plant X makes their own food but the grasshopper does not make their own food but it catches their food.
- Q32
- (a) The mouth grins the apple to smaller pieces.
 - (b) Saliva
 - (c) Stomach
- Q33
- (a) 14
 - (b) The more number Kevin hits, the strength of the magnet will decrease.
- Q34
- (a) Object Z must be the magnet because only magnets repel.
 - (b) Object X must be the wooden block because a wooden block is a non-magnetic material so the magnet cannot attract object X.

End