METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

CONTINUAL ASSESSMENT 2014
PRIMARY 4
SCIENCE

BOOKLET A

Total Time: 1 h

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.
Follow all instructions carefully.
Answer all questions.

Name: _____

Class: Primary 4 ____

Date : 6 March 2014

This booklet consists of 12 printed pages excluding this page.

For each question from 1 – 15, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the optical answer sheet. (30 marks)

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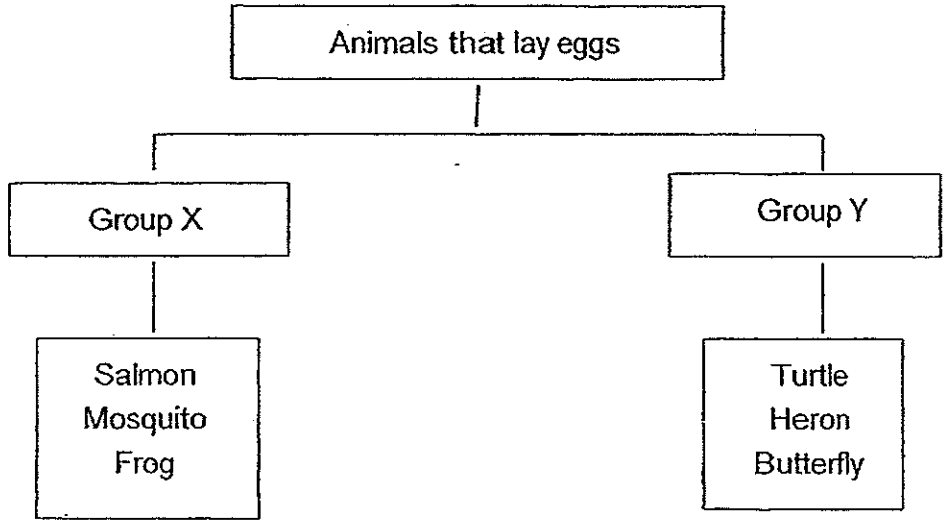
1. Study the classification diagram shown below.



Which of the following are the most suitable headings for the two groups?

	GROUP X	GROUP Y
(1)	Lays one egg at a time	Lays many eggs at a time
(2)	Lays eggs in water	Lays eggs on land
(3)	Eggs with shell	Eggs without shell
(4)	Eggs do not need to be incubated	Eggs need to be incubated

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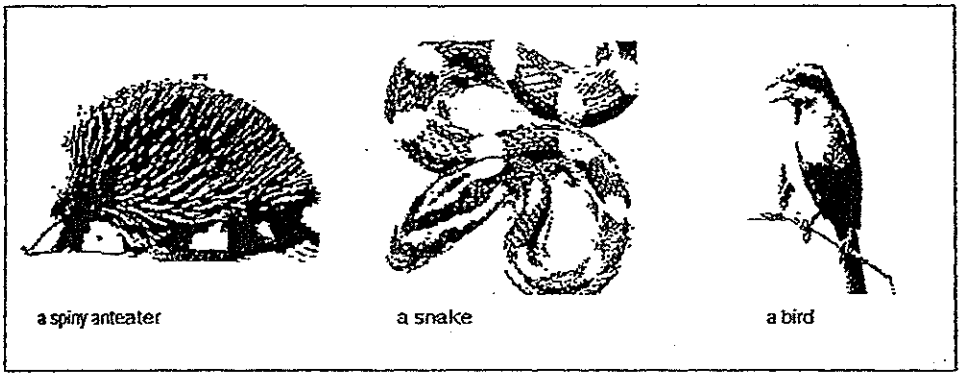
2. The animals below share common characteristic(s).



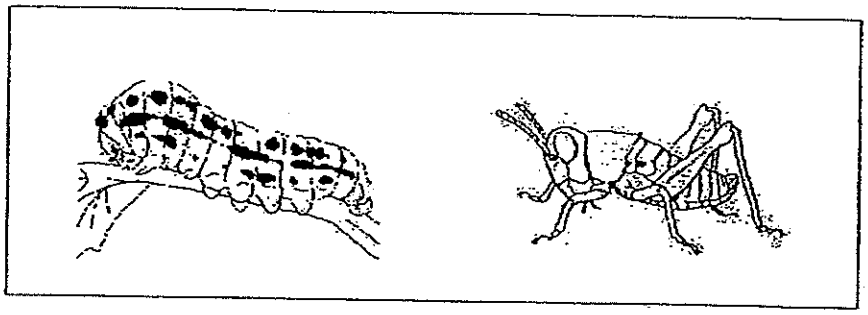
What is /are the common characteristic(s)

A : They lay eggs.
B : They grow and eventually die.
C : They feed on the same type of food.
D : They respond to changes around them.

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

(Go on to the next page)

3. How are the young of the grasshopper and the butterfly similar?



A : They moult
B : They turn into pupae.
C : They have no wings.
D : They resemble their parents.

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

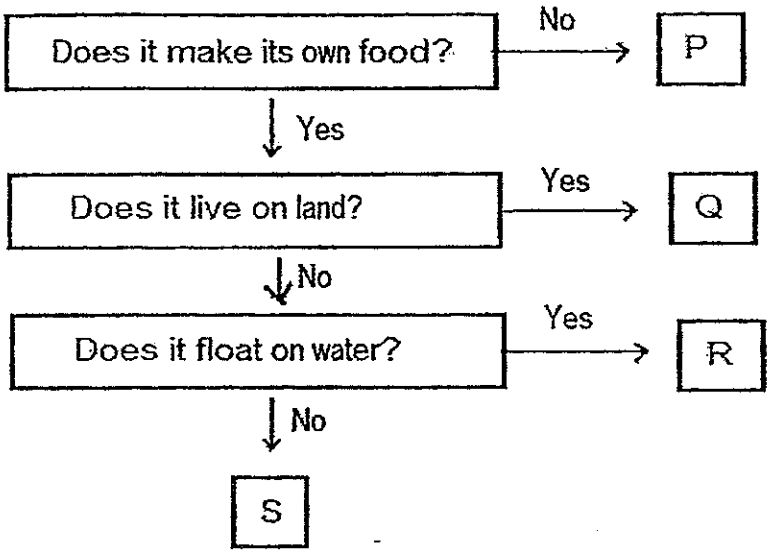
4. Raju wants to grow a long bean plant from seeds. Which of the following are needed for the seed to germinate?

A : air
B : water
C : warmth
D : sunlight
E : carbon dioxide

(1) A, B and C only
(2) A, B and D only
(3) A, B, C and D only
(4) All of the above

(Go on to the next page)

5. Study the classification chart below.



Which of the following correctly shows what P, Q, R and S most likely represent?

	P	Q	R	S
(1)	Lion	Cactus	Duckweed	Hydrilla
(2)	Earthworm	Sunflower	Hydrilla	Pine
(3)	Grass	Ladder fern	Whale	Tapegrass
(4)	Rabbit	tapegrass	Duckweed	Hydrilla

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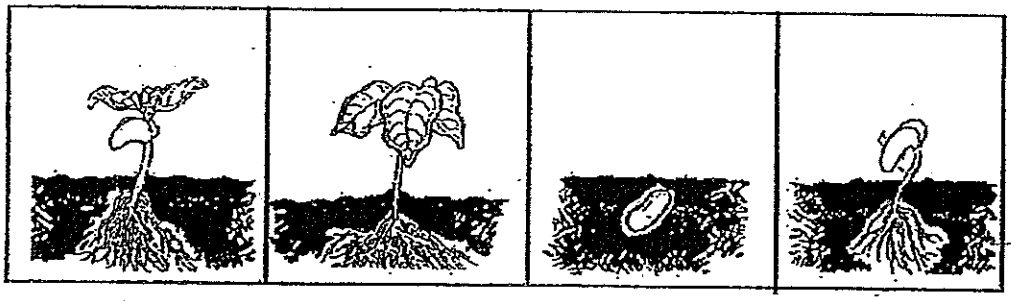
6. The pictures show the different stages in the growth of a plant. What is the correct order of growth?



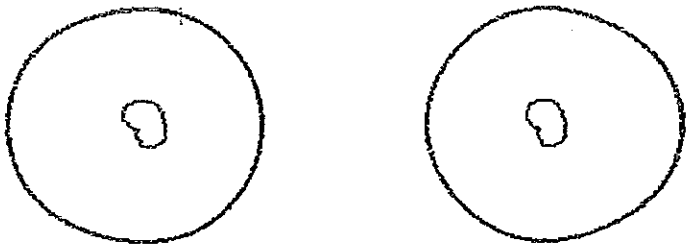
(1) C,A,D, B

(2) C,A, B ,D

(3) C,D, A, B

(4) C,D, B, A

7. Two identical seeds were placed in a dish as shown below.



After a few days, only the seed in dish B germinated.
What are the most likely conditions that caused this result in both dishes?

	Dish A	Dish B
(1)	Placed in a sunny place and watered daily	Placed in the refrigerator and watered daily
(2)	Placed in a sunny place without any water	Placed in a dark cupboard and watered daily
(3)	Was put in a pot of boiled water	Placed in a container of alcohol
(4)	Was wrapped in cling wrap and not watered	Was put into an airtight container and not watered.

(Go on to the next page)

8. The diagram below shows a swimming board.
What characteristics must the material for making the swimming board have?

A : It must be light.
B : It must be flexible.
C : It must be waterproof.
D : It must float on water.

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

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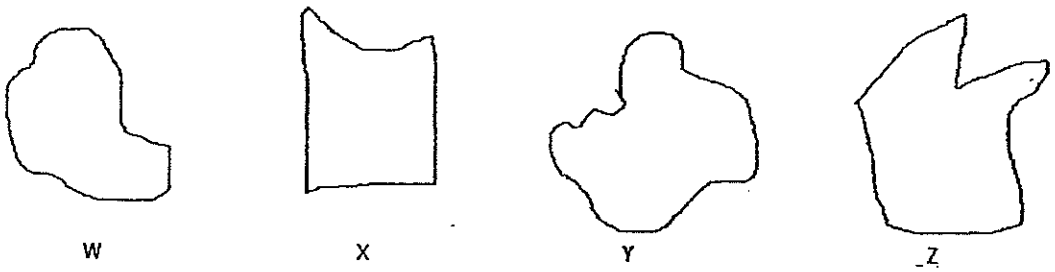
9. A scientist discovered W, X, Y and Z while doing an experiment. He set out to determine if the four things could be classified as matter.



The results were tabulated in the table below.

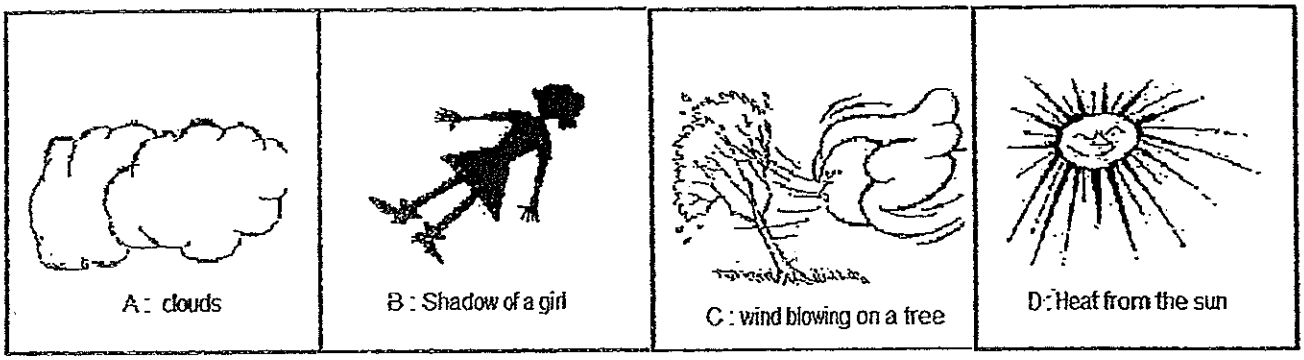
	Volume (cm^3)	Mass (g)
W	5	0
X	7	10
Y	8	15
Z	0	21

Based on the results that the scientist obtained, which of the four items are matter?

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

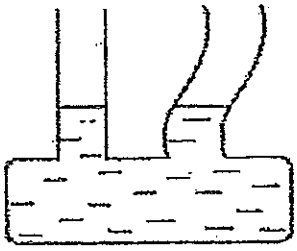
(Go on to the next page)

10. Which of the following are **not** matter?

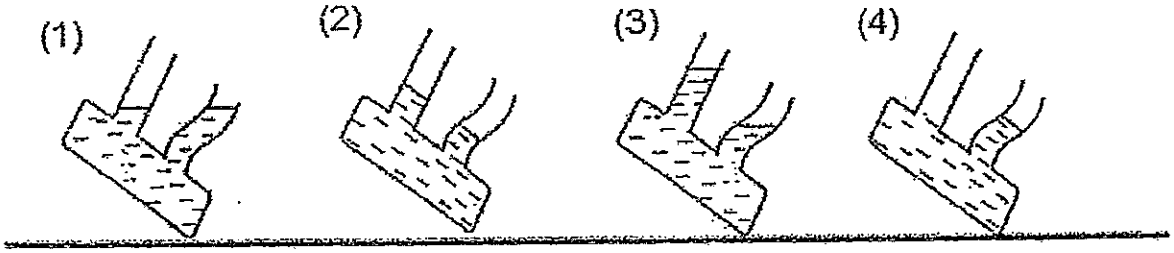


(1) A and B only
(2) B and C only
(3) A and C only
(4) B and D only

11. Samy half-filled the communicating flask with water.



Which one of the following correctly shows the apparatus when it is tilted?



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12. Peter hangs a magnet from a spring as shown in Diagram 1. He then puts a second magnet directly below the first. What would he observe?

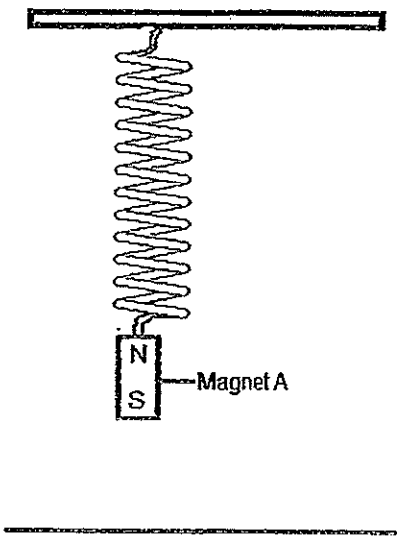

Diagram 1

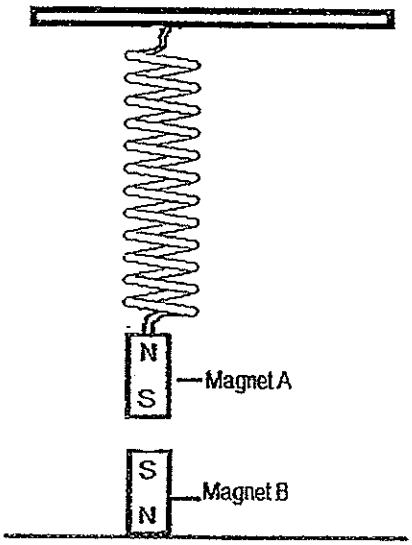

Diagram 2

(1) The spring stretches more in Diagram 2.

(2) The spring stretches less in Diagram 2.

(3) The magnets will attract each other.

(4) The spring is of the same length as in Diagram 1.

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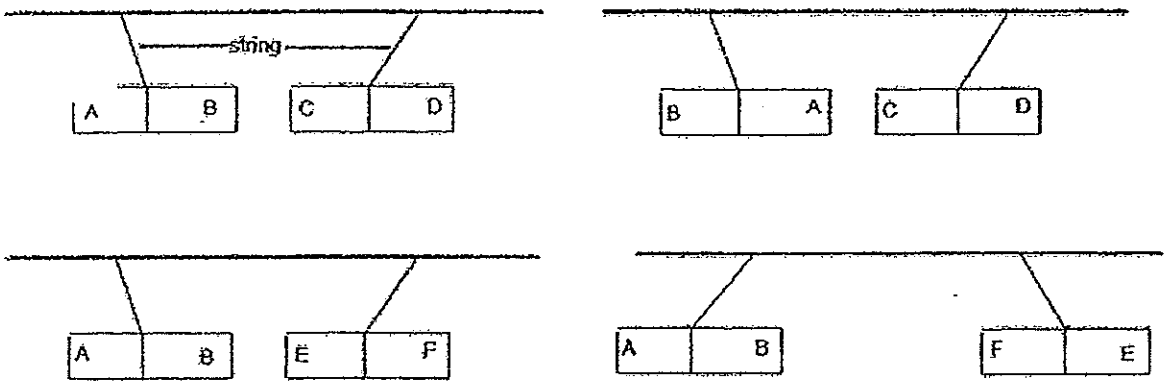
13. Candy wanted to find out which of the three metal bars, AB, CD and EF are magnets. She hung each bar from a string and brought them near to each other. Her results are shown below.

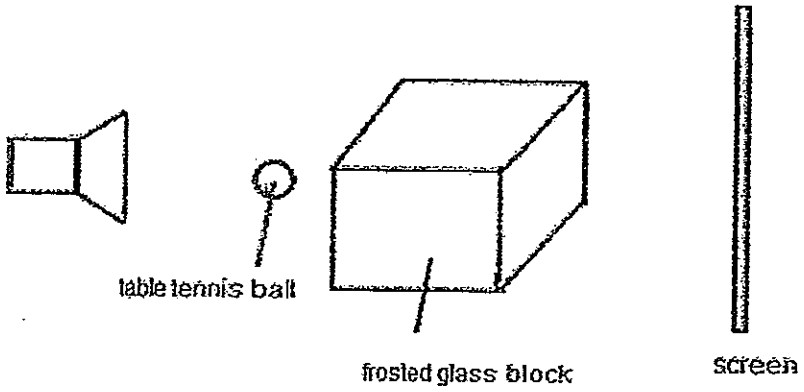


Which one of the following is correct?

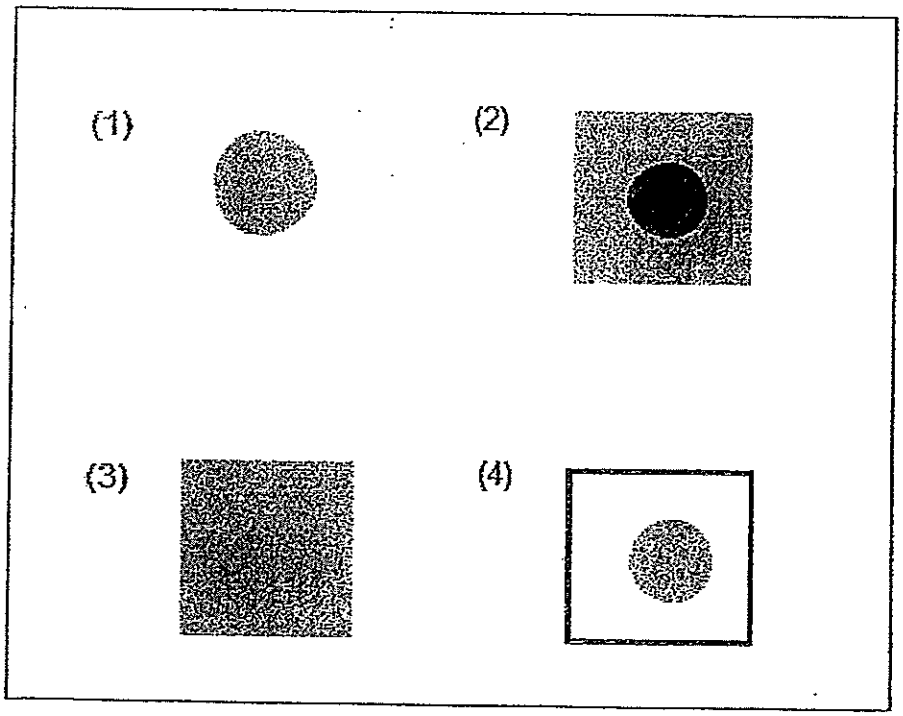
	AB	CD	EF
(1)	Not a magnet	Magnet	Magnet
(2)	Not a magnet	Not a magnet	Magnet
(3)	Magnet	Not a magnet	Magnet
(4)	Magnet	Magnet	Not a magnet

(Go on to the next page)

14. A torch is shone at the two objects as shown below.



What will be the shape of the shadow seen on the screen?



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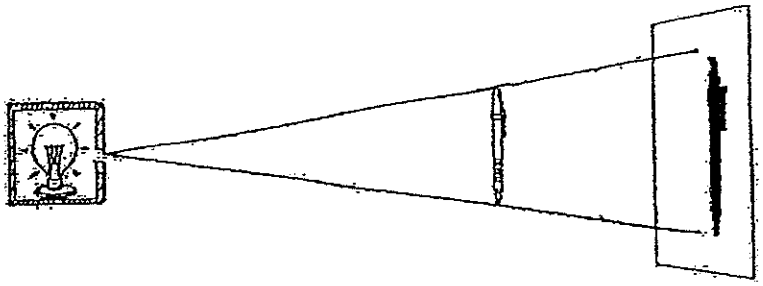
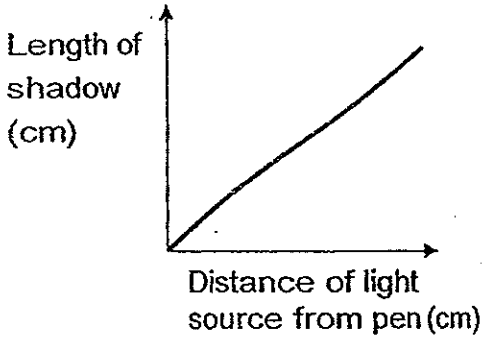
15. Study the following set-up carefully.

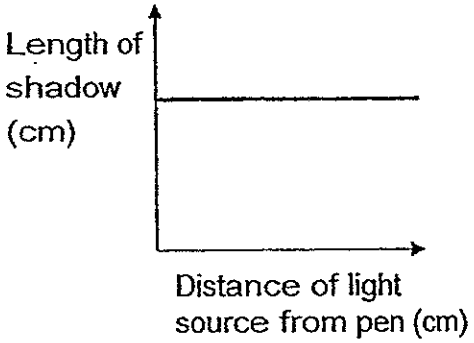


Which one of the following line graphs shows the correct relationship between the distance of the pen from the light source and the length of its shadow?

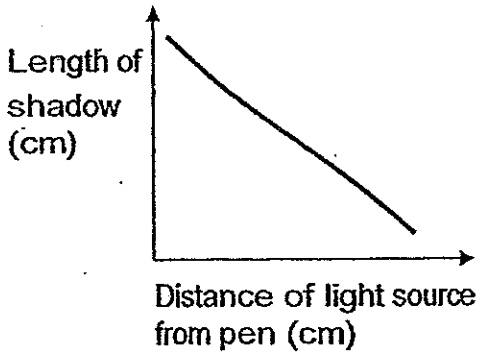
(1)



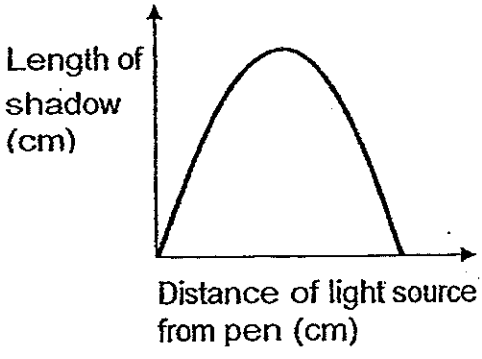
(2)



(3)



(4)



-End of Booklet A-

METHODIST GIRLS' SCHOOL (PRIMARY)

Founded in 1887

CONTINUAL ASSESSMENT 2014
PRIMARY 4
SCIENCE

BOOKLET B

Total Time: 1 h

INSTRUCTIONS TO CANDIDATES

Answer all questions.
Write your answers in this booklet.

Name: _____

Class: Primary 4. _____

Date: 6 March 2014

Booklet A	**/ 30**
Booklet B	**/ 20**
TOTAL	**/ 50**

This booklet consists of 9 printed pages excluding this page.

Answer all the questions.
The number of marks available is shown in brackets ( ) at the end of each question or part question. (20 marks)

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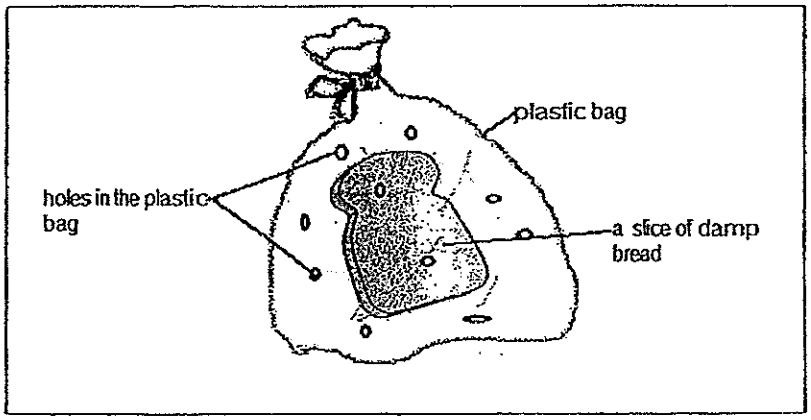
16. Badawi placed a slice of damp bread into a plastic bag as shown below. He poked a few holes in the plastic bag and placed it on his dining table. After a few days, he saw mould growing on the bread.



a) Why did he poke holes in the plastic bag? (1m)

_____

_____

b) What would he observe on the bread after a few days if he had used a slice of toasted bread? (1m)

_____

_____

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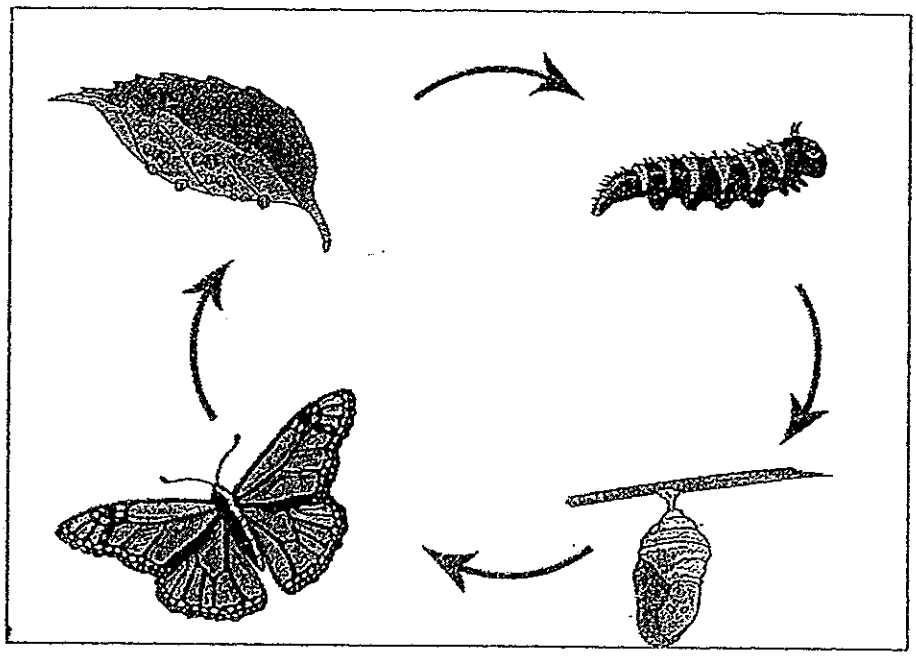
17. The diagram shows the life cycle of a butterfly.



a) Name an animal which has a life cycle that resembles the life cycle shown above. (1m)

_____

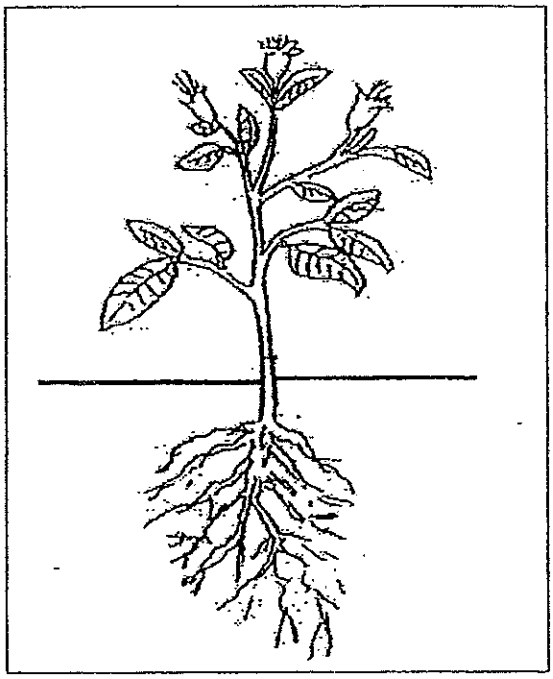
b) At which stage of its life cycle is the butterfly considered a pest to the gardener? Give a reason for your answer. (2m)

_____

_____

(Go on to the next page)

18. Study the plant below carefully.



For each of the following statements, tick (√) the correct box to indicate if the statement is "True", "False" or "Not Possible to tell". (2m)

	Statement	True	False	Not possible to tell
(1)	The plant is an adult plant.			
(2)	The plant has reached its maximum height.			
(3)	The plant has a network vein pattern.			
(4)	Some flowers on the plant will not develop into fruits.			

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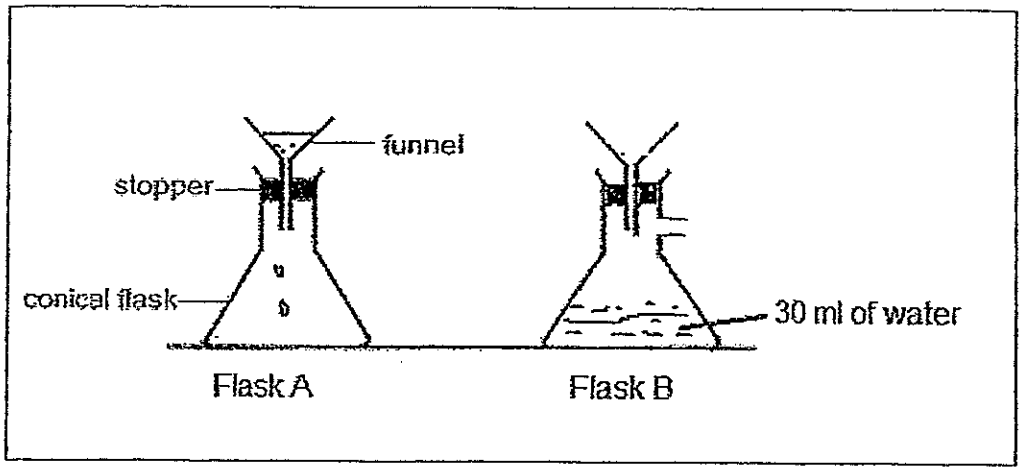
19. Meena attempts to pour 30 ml of water quickly into each of the two glass conical flasks as shown below. Water does not flow into Flask A quickly while all the water flows into Flask B quickly.



a) Why does water flow into Flask B quickly and not in Flask A? (1m)

_____

_____

b) State one way to make water flow into Flask A quickly. (1m)

_____

_____

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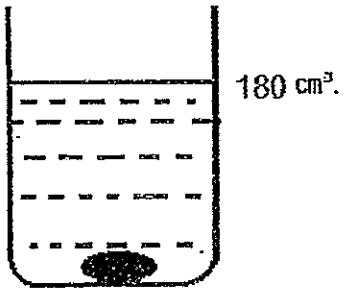
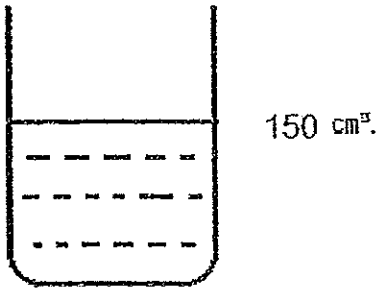
20. Mariam placed a ball of plasticine into a beaker of water and she noticed that the water level rose to 180cm.





She took the plasticine out of the water. She noted the reading, which was 150 cm^3.

a) What is the volume of the ~~stone~~? (1m)

_____

b) She next cut the plasticine into two and placed both parts back into the water again. What will the new reading in the beaker be? (1m)

_____

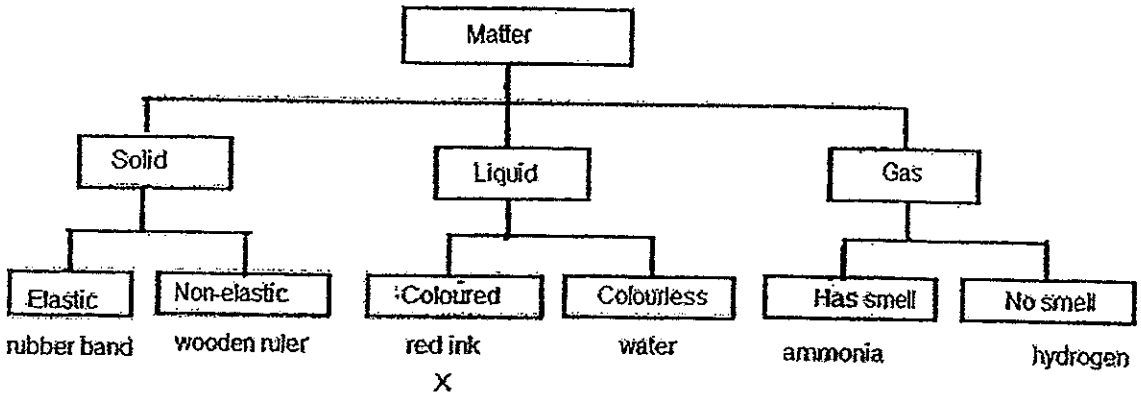
c) What property of the plasticine can she conclude from the experiment? (1m)

_____

_____

(Go on to the next page)

21. Study the classification chart below.



a) Based on the classification chart above, write down the characteristic of Substance X. (1m)

_____

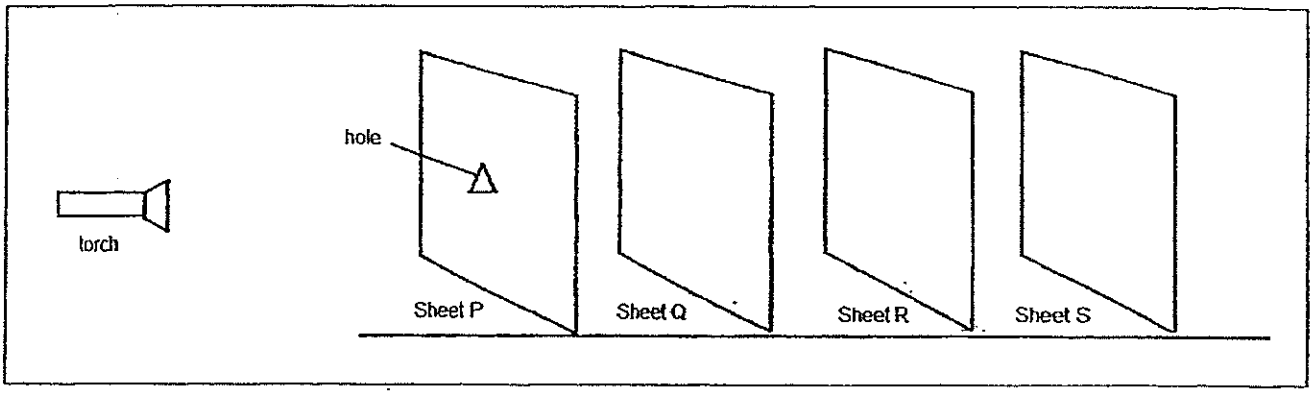
_____

b) Based on the information given in the chart above, state one difference in the characteristic between rubber band and ammonia. (1m)

_____

_____

22. Su Li carried out an experiment in a dark room. She arranged four pieces of paper in a straight line. She then switched on her torch and a bright triangular patch of light is seen on Sheet R only.



Put a tick (√) in the correct box for each statement . (2m)

	Statement	True	False	Not possible to tell
(a)	Sheet P is transparent.			
(b)	Sheet Q is opaque.			
(c)	Sheet R does not allow light to pass through.			
(d)	Sheet S is transparent			

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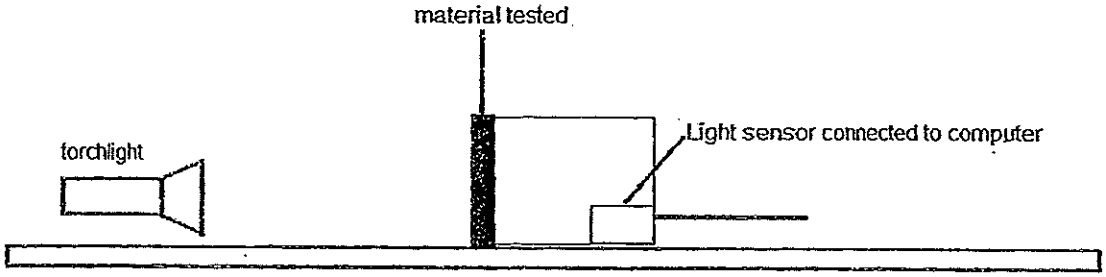
23. Hamid wanted to find out how much light was able to pass through the different materials. He connected a datalogger to a computer to carry out his experiment.

The results are tabulated below.



Materials tested	Reading on the computer
White envelope	3
Ceramic mug	0
Tracing paper	8
Spectacle lens	12

a) Arrange the materials from the most opaque to the least opaque. (1m)

_____

b) What would be the most likely reading on the computer if a piece of metal ruler is tested? Give a reason. (1m)

_____

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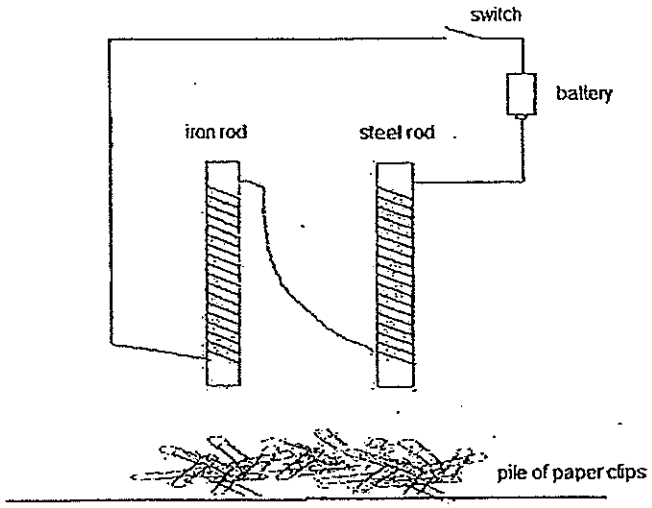
24. Danny coiled some wire around an iron rod and a steel rod. The ends of the wires were connected to an electrical circuit.



a) When he closed the switch, what do you think will happen to the two rods? (1m)

_____

_____

The two rods were placed 5cm above a pile of steel paper clips before the switch was closed. The number of paper clips attracted to each rod was recorded.

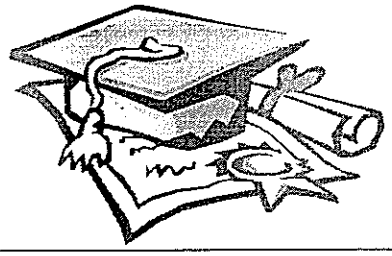
Number of tries	Iron rod	Steel rod
1st trial	16	9
2nd trial	14	10
3rd trial	15	8

b) Why did Danny repeat the experiment three times? (1m)

_____

_____

-End of Paper-



ANSWER SHEET

EXAM PAPER 2014

SCHOOL : MGS (PRIMARY)
SUBJECT : PRIMARY 4 SCIENCE

TERM : CA1

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15
2	4	3	1	1	3	2	4	4	4	1	2	3	2	3

16. a) To draw air to enter the bag.
b) He could see no change.

17. a) Moth
b) At the larva stage. At this stage, the caterpillar eats a lot of leaves and destroys plants.

18. 1) True
2) Not possible to tell
3) True
4) Not possible to tell

19. a) In Flask B, there is a gap for the air to escape and the water to flow in. In flask A, the air cannot escape for water to flow in.
b) Loosen the stopper

20. a) 30
b) The new reading will remain the same as the plasticine has a definite volume.
c) Plasticine has a definite volume.

21. a) Substance X is a coloured liquid.
b) Rubber band is elastic but ammonia is not. Ammonia has a small but rubber band does not.

22. a) False
b) False
c) True
d) Not possible to tell

23. a) Ceramic mug, white envelope, tracing paper, spectacle lense
b) 0. Metal is an opaque object and does not allow light to pass through.

24. a) They will become electromagnets.
b) To ensure that the results of the experiments are consistent and reliable.