

**ANGLO-CHINESE SCHOOL
(JUNIOR)**



**CONTINUAL ASSESSMENT 2 (2015)
PRIMARY 4**

SCIENCE

BOOKLET A

Wednesday

26 August 2015

50 minutes

Name : _____ ()

Class : P4 _____

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 12 questions in this booklet.

Answer ALL questions.

INFORMATION FOR PUPILS

The total marks for this booklet is 24.

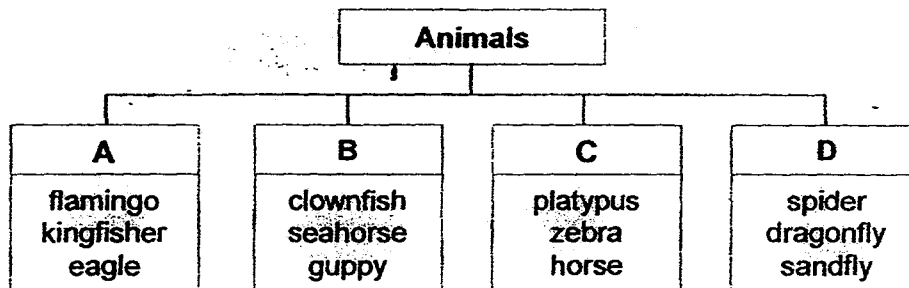
The total time for Booklets A and B is 50 minutes.

This question paper consists of 8 printed pages (inclusive of cover page).

Booklet A (24 marks)

For each question from 1, to 12, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet. (12 x 2 marks)

1. Study the classification chart shown below.



In which group has an animal been incorrectly classified?

- (1) A
(2) B
(3) C
(4) D
2. Which of the following statements about the circulatory system is/are correct?
- A The circulatory system consists of the heart, lungs and nose.
B Our blood vessels, which form part of our circulatory system, carries blood to all parts of our body.
C The circulatory system transports oxygen, water, waste substances and digested food to different parts of the body.
- (1) C only
(2) A and B
(3) A and C
(4) B and C

3. Ali wanted to find out if temperature affects the time taken for seeds to germinate. He placed 5 seeds each on 3 identical dishes, S, T and U and placed them under conditions necessary for germination.

Which variable(s) must Ali keep constant for it to be a fair experiment?

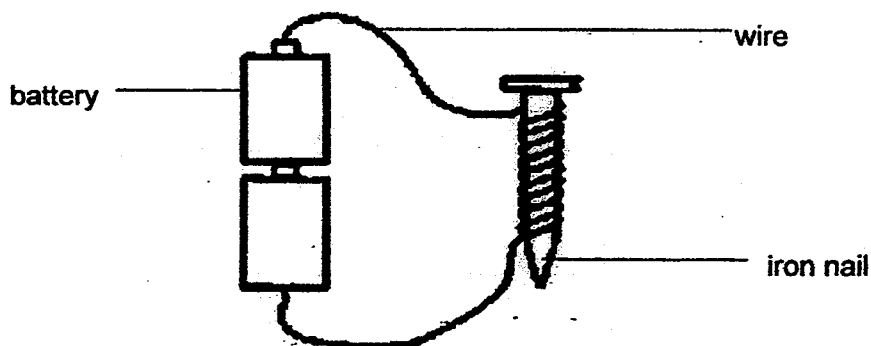
- A Amount of light.
- B Amount of water.
- C Temperature of the surroundings.
- D Number of days taken for each seed to germinate.

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

4. Which one of the following statements about light and shadows is **false**?

- (1) Light ~~energy~~ helps us to see.
- (2) The Moon and stars are sources of light.
- (3) An opaque object can form shadows of different shapes and sizes.
- (4) We can see through a material if it allows most of the light to pass through it.

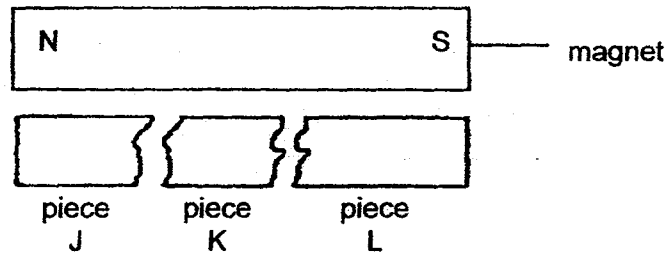
5. Jason coils some wire around an iron nail and connects the ends of the wire to a set of batteries as shown in the diagram below.



What will happen when he dips the iron nail into a bowl of copper coins and steel filings?

- (1) The steel filings will be attracted to the iron nail.
- (2) The copper coins will be attracted to the iron nail.
- (3) Both the copper coins and the steel filings will be attracted to the iron nail.
- (4) Both the copper coins and the steel filings will not be attracted to the iron nail.

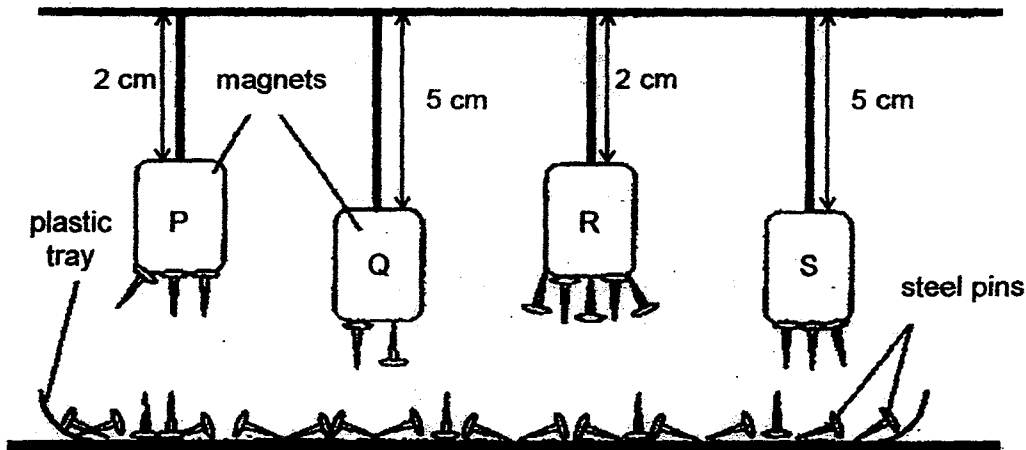
6. Bob broke a magnet into 3 pieces, J, K and L as shown in the diagram below. He then brought the pieces J, K and L close together.



His friends Chloe, Daisy and Edward made some observations about the broken pieces of magnet. Which of their conclusion(s) is/are correct?

- Chloe: Piece J does not have a south-seeking pole.
 Daisy: Piece L's magnetism is strongest at its poles.
 Edward: Piece K has a north-seeking pole and a south-seeking pole.

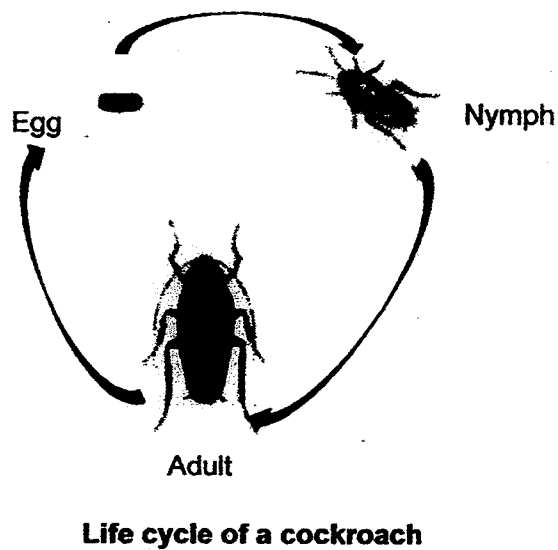
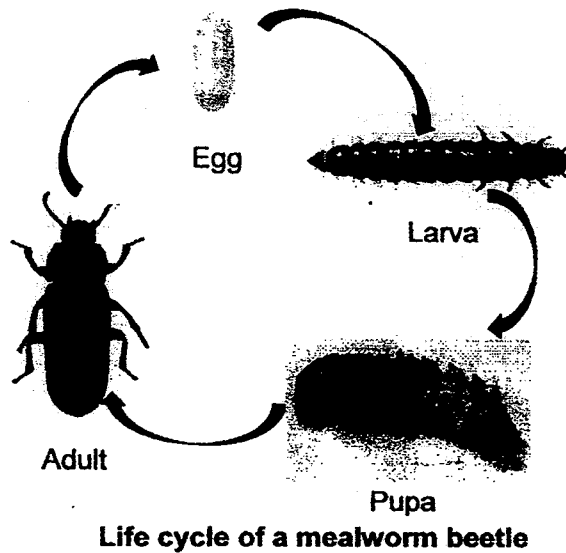
- (1) Chloe only
 (2) Edward only
 (3) Chloe and Daisy
 (4) Daisy and Edward
7. Sally set up the experiment below to test the strength of 4 different magnets, P, Q, R and S. She hung the magnets at two different lengths and placed a plastic tray of steel pins below them.



Based on the experiment, arrange the magnets according to their strength, from the weakest to the strongest.

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

8. Jenny compared the life cycles of a mealworm beetle and a cockroach and made some statements about the two life cycles.

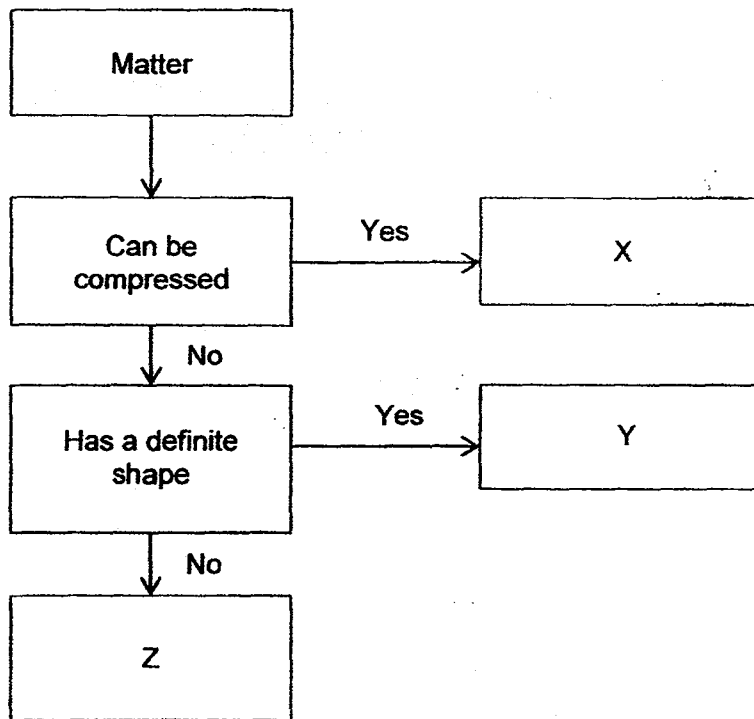


Which of her statements is/are true?

- A Both their young ^{molt} ~~molt~~.
- B They both have an egg stage.
- C Both go through a nymph stage.
- D Their young resemble the adults.

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

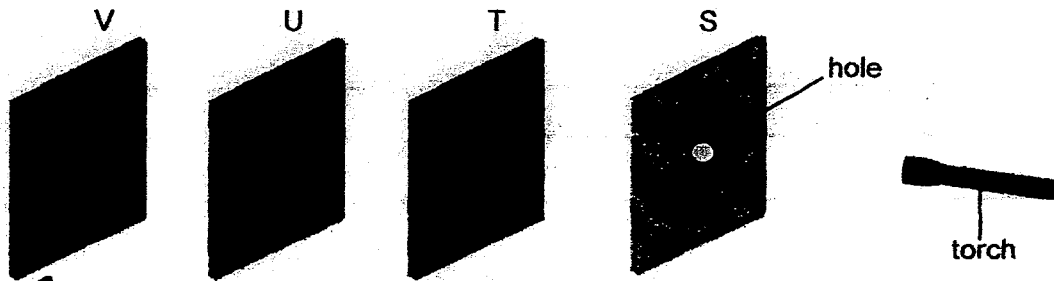
9. Study the flowchart carefully.



What are X, Y and Z most likely to be?

	X	Y	Z
(1)	Oxygen	Mango juice	Sharpener
(2)	Mango juice	Sharpener	Oxygen
(3)	Sharpener	Oxygen	Mango juice
(4)	Oxygen	Sharpener	Mango juice

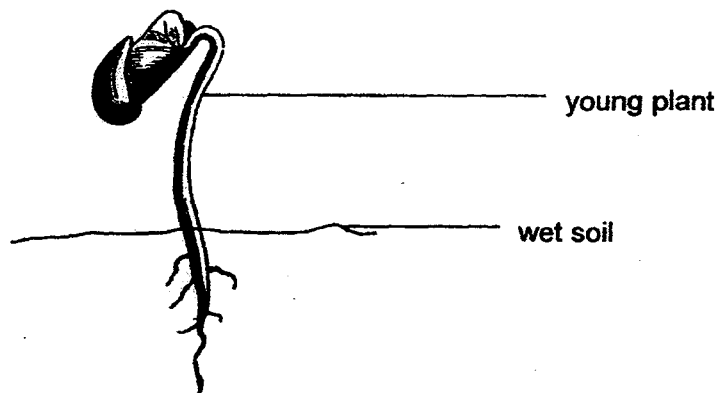
10. Four sheets of different materials were arranged in a straight line as shown in the diagram below. A torch was placed in front of sheet S.



The torch was switched on and a bright patch of light was seen on Sheet V. Which of the following are most likely the materials of sheets S, T, U and V?

	Sheet S	Sheet T	Sheet U	Sheet V
(1)	Wood	Clear plastic	Clear glass	Aluminium foil
(2)	Wood	Clear glass	Aluminium foil	Wood
(3)	Aluminium foil	Clear glass	Cardboard	Clear plastic
(4)	Clear glass	Cardboard	Wood	Clear plastic

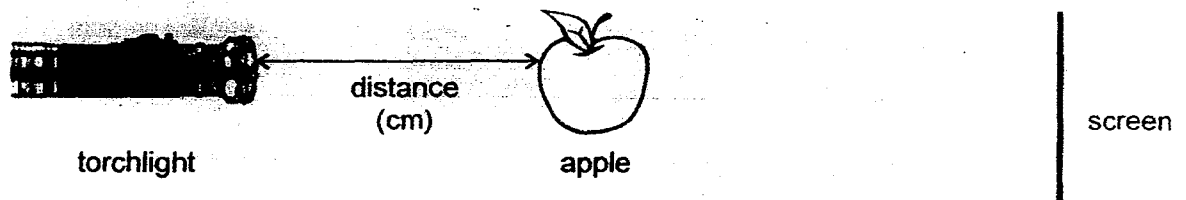
11. Observe the diagram below.



David planted a seed in some wet soil and placed it in a dark corner of a room. A few days later, the seed grew into a young plant as shown above. Which of the following statements about the seed is true?

- (1) The seed can make its own food.
- (2) The seed needs light to germinate.
- (3) The seed uses its stored food to grow.
- (4) The seed gets its food from the wet soil.

12. Cassie wanted to test if the distance between a light source and an object would affect the height of the shadow formed by it on the screen. She prepared the following set-up and repeated the test 3 times, each time changing the distance between the torchlight and the apple.



She recorded the results of her experiment in the table below:

Distance between torchlight and apple (cm)	Height of shadow of apple (cm)
15	5
10	15
3	25

From the results of her experiment, what can Cassie conclude about the relationship between the distance of the light source and the height of the shadow formed?

- (1) The height of the shadow remains unchanged.
- (2) The greater the distance between the light source and the object, the longer the height of its shadow.
- (3) The shorter the distance between the light source and the object, the shorter the height of its shadow.
- (4) The greater the distance between the light source and the object, the shorter the height of its shadow.

**ANGLO-CHINESE SCHOOL
(JUNIOR)**



**CONTINUAL ASSESSMENT 2 (2015)
PRIMARY 4**

SCIENCE

BOOKLET B

Wednesday

26 August 2015

50 minutes

Name : _____ ()

Class : P4 _____

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 6 questions in this booklet.

Answer **ALL** questions.

INFORMATION FOR PUPILS

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

The total marks for this booklet is 16.

The total time for Booklets A and B is 50 minutes.

This question paper consists of 7 printed pages (inclusive of cover page).

PRACTICAL	/ 10
BOOKLET A	/ 24
BOOKLET B	/ 16
TOTAL	/ 50

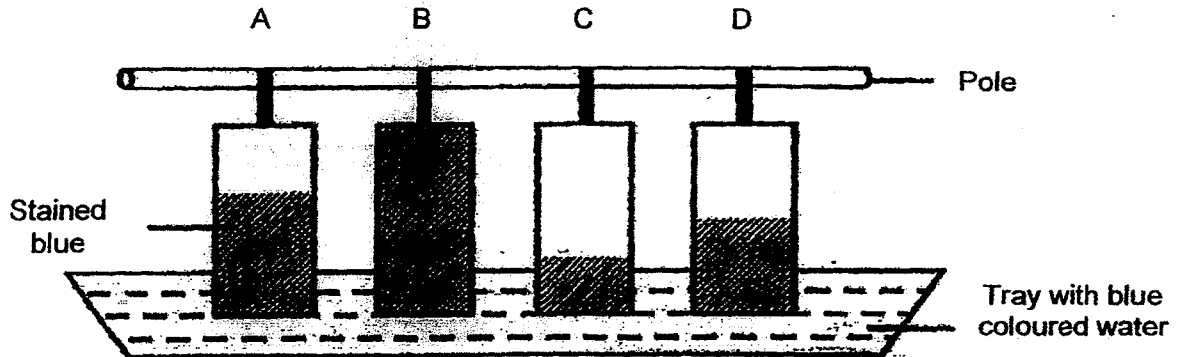
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Booklet B (16 marks)

For questions 13 to 18, write your answers in this booklet.

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

13. Jane dipped four sheets of materials, A, B, C and D of same length and size into a tray of blue coloured water as shown below. The shaded parts of the materials indicate the amount of blue coloured water absorbed after twenty minutes.



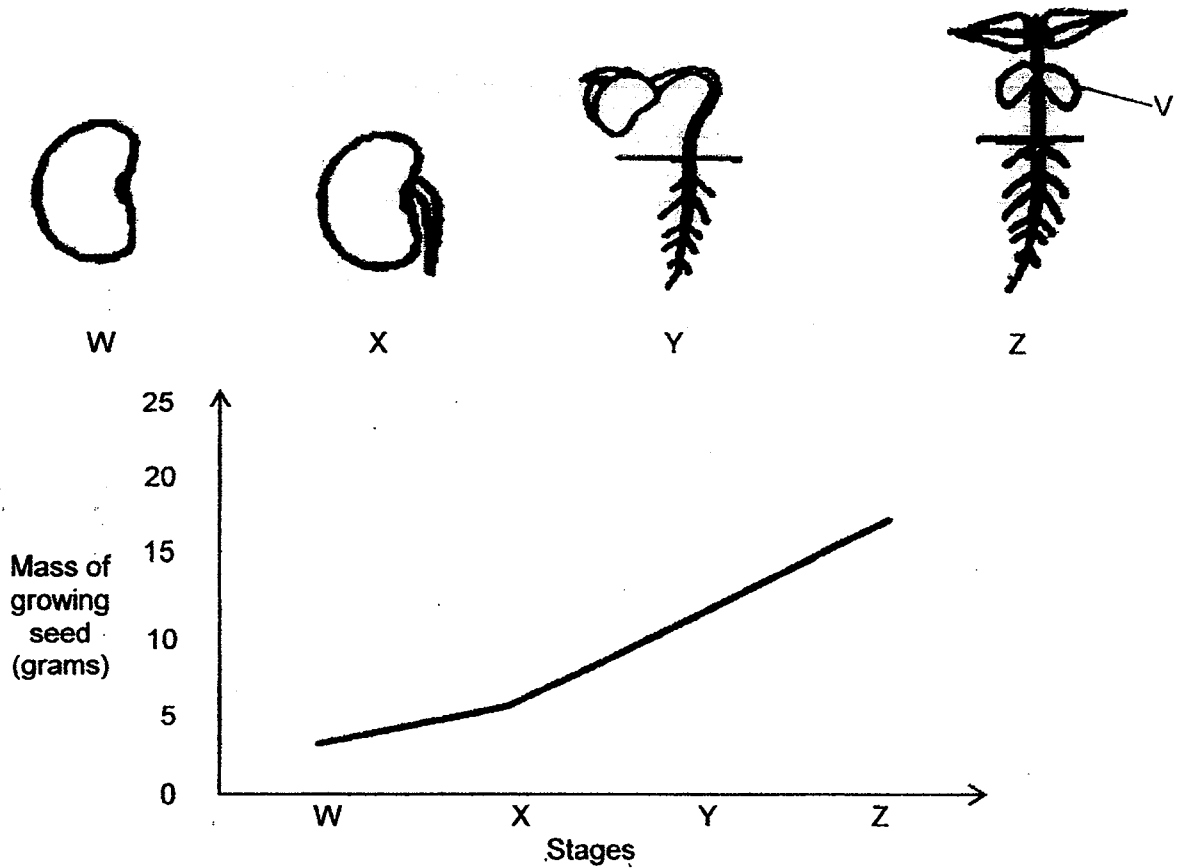
- (a) What was the aim of Jane's experiment? [1]

- (b) What is the changed variable in the experiment above? [1]

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SCORE	
	2

14. Frank observed the growth of a seed as shown below.
He recorded the mass of the seed from stage W to stage Z.



- (a) From the results, the mass of the growing seed increased from stage W to stage Z. Explain why. [1]

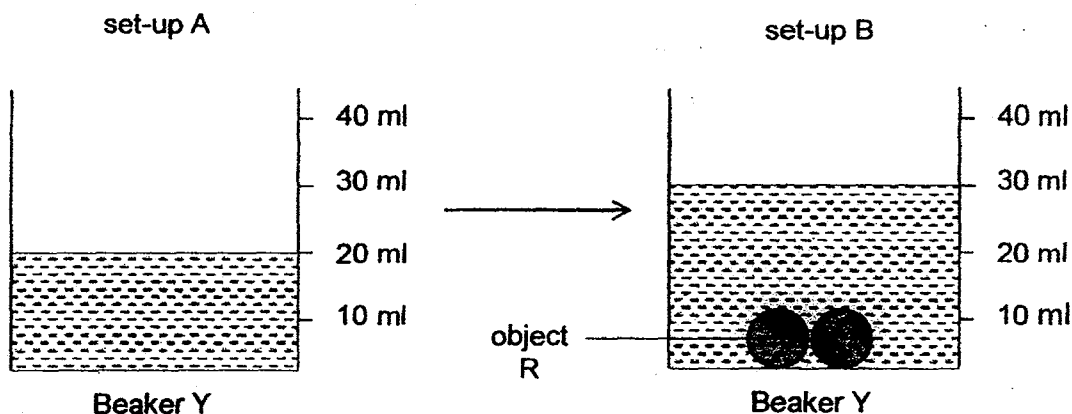
- (b) Look at stage Z. Name the part labeled V. [1]

- (c) Frank removed the part labeled V. Will the young plant continue to grow? Explain your answer. [1]

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SCORE	
	3

15. Gary wanted to find out how the volume of an object could be measured. He filled a beaker, Y, with some water as shown in set-up A. He then dropped 2 identical objects, R, into the beaker of water. The water level rose, as shown in set-up B.



- (a) What is the volume of both objects, R? [1]

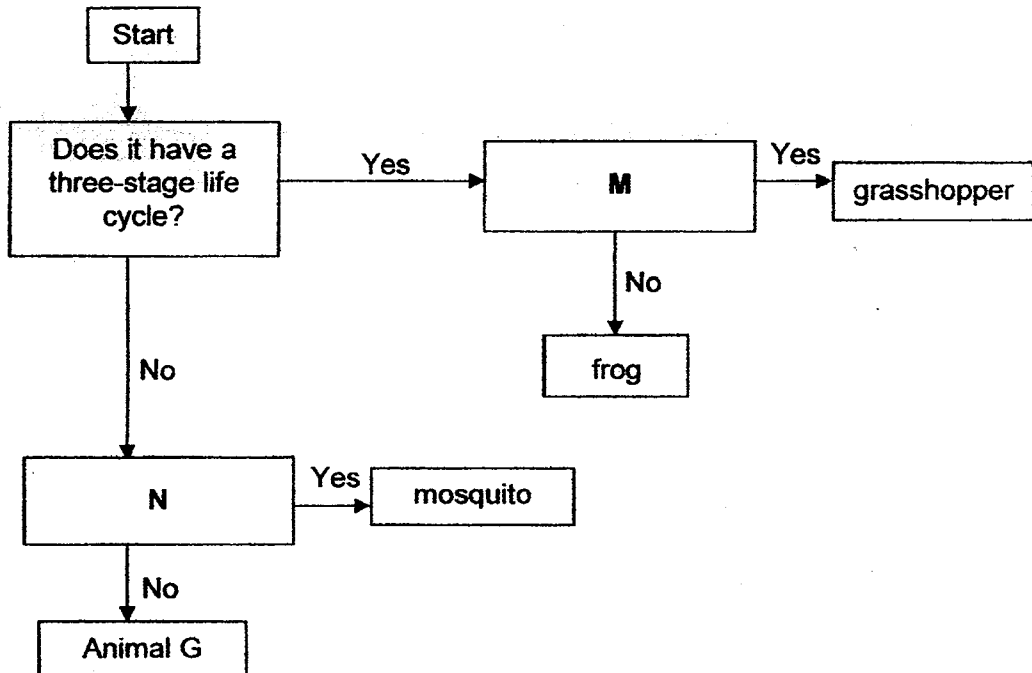
- (b) Explain why the water level rose in set-up B. [1]

- (c) Based on this experiment, state one property of water that is shown in the above set-up. [1]

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SCORE	
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16. Study the flowchart below carefully.



- (a) Based on the flowchart above, which questions best represent M and N? Fill in your answers, M and N, in the correct boxes below.

[1]

Question	Letter
Does the larva live in the water?	
Does the young resemble the adult?	

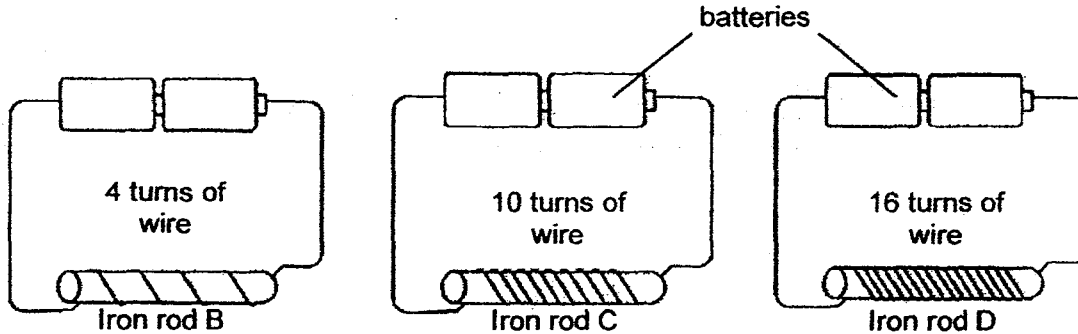
- (b) Based on the flowchart, what could Animal G be?

[1]

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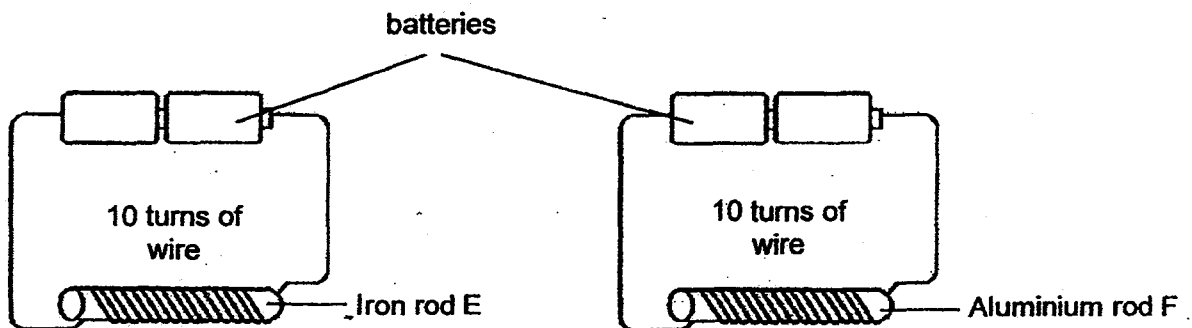
17. Adam set up the following experiment to find out if the number of turns of wire around an iron rod would affect the magnetic strength of the electromagnet. He set up the experiment as shown below.



- (a) Adam tested the magnetic strength of each electromagnet by placing them into a tray of paper clips. Which electromagnet would attract the most number of paper clips? Explain your answer. [1]

- (b) Adam now wants to change the aim of his experiment. He wants to find out if the amount of electricity in the set-ups affects the magnetic strength of the electromagnet. Which variable should he change to achieve his aim? [1]

- (c) Adam repeated the experiment by comparing two set-ups. One of the set-ups had an aluminium rod as shown below. He then placed each rod into a tray of paper clips.

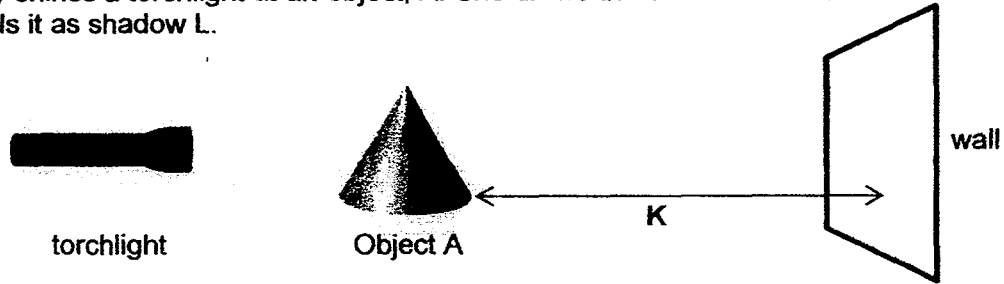


If the electromagnet with Iron rod E attracted 10 paper clips, what would Adam observe about the number of paper clips attracted by the electromagnet with Aluminium rod F? Explain your answer. [1]

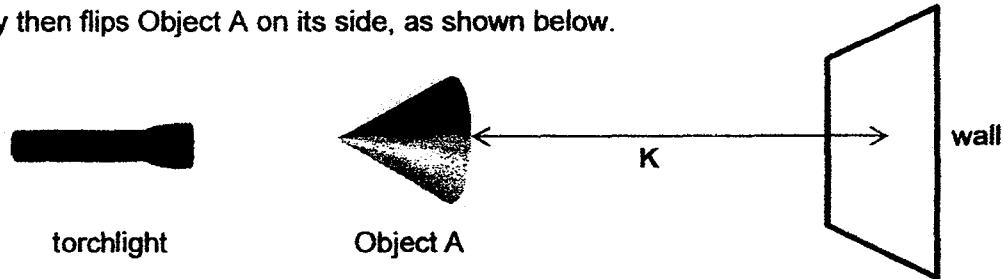
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SCORE	
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18. Sally shines a torchlight at an object, A. She draws the shadow that forms on the wall and labels it as shadow L.



Sally then flips Object A on its side, as shown below.



Draw in the table below the shadow, M, that will form on the wall when Sally shines the torchlight again.

[1]

(a)

Shadow L	Shadow M

- (b) Apart from the property that light travels in a straight line, state another property of light that allows Shadows L and M to form.

[1]

- (c) Sally shines the torchlight on Object A again. After changing the distance K , which is the distance between the object and the wall, she recorded the height of the shadow formed as follows.

Distance K (cm)	Height of shadow (cm)
10	5
15	7
20	9

Describe the relationship between the distance K and the height of the shadow formed. [1]

EXAM PAPER 2015**LEVEL : PRIMARY 4****SCHOOL : ANGLO-CHINESE SCHOOL (JUNIOR)****SUBJECT : SCIENCE****TERM : CA2**

Q 1	Q 2	Q 3	Q 4	Q 5	Q 6	Q 7	Q 8	Q 9	Q 10
4	4	1	2	1	4	2	2	4	1
Q 11	Q 12								
3	4								

Q13a. She wanted to find what kind of materials can absorb water the most.

Q13b. The type of material.

Q14a. The bean seed is growing into a young plant and as the root and stem appear the mass increased.

Q14b. The seed coat.

Q14c. Yes. The leaves will make food for the plant and the food in the seed is used up.

Q 15a. 10ml.

Q15b. Object R is a matter, so it will take up space.

Q15c. Water has no definite shape.

Q16a. N / M Q16b. Butterfly

Q17a. It has the most number of turns of wire. Therefore it has the most magnetic strength.

Q17b. The amount of batteries.

Q17c. The number of paper clips attracted is 0. Aluminum is not a magnetic object, only magnetic material is able to be an electromagnet.

Q18a. **SEE PICTURE**

Q18b. When light is blocked by an opaque object, a shadow will form.

Q18c. The greater the distance of the wall and the longer the height of the object, the shorter is the shadow.

