

# METHODIST GIRLS' SCHOOL

Founded in 1887



## CONTINUAL ASSESSMENT 2013 PRIMARY 5 SCIENCE

### BOOKLET A1

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

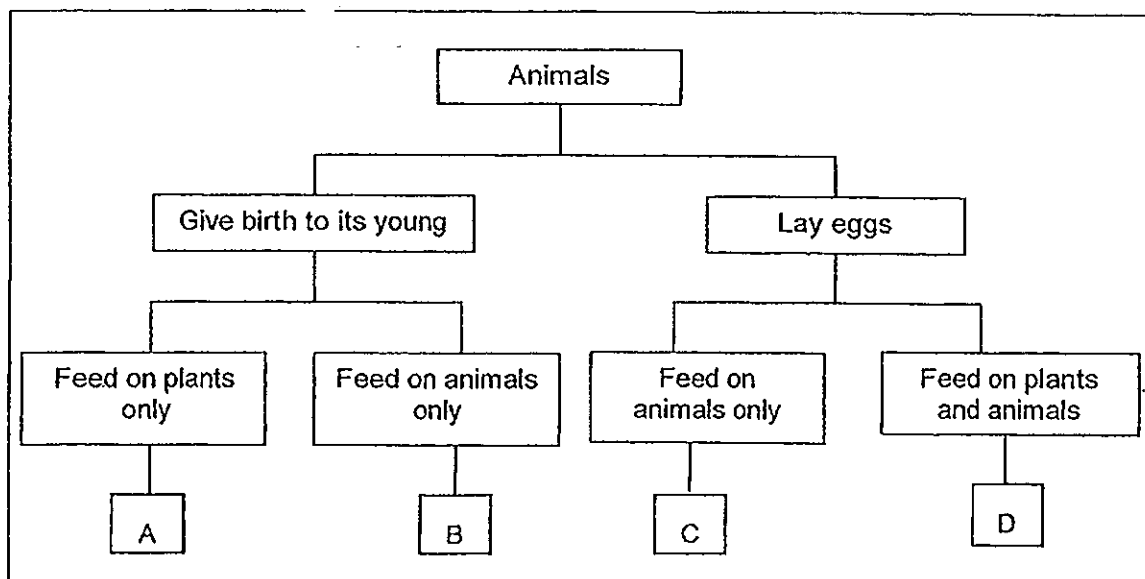
Class: Primary 5. \_\_\_\_\_

Date: 7 March 2013

This booklet consists of 11 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 (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet (OAS).

1. The diagram below shows some similarities and differences between some animals.

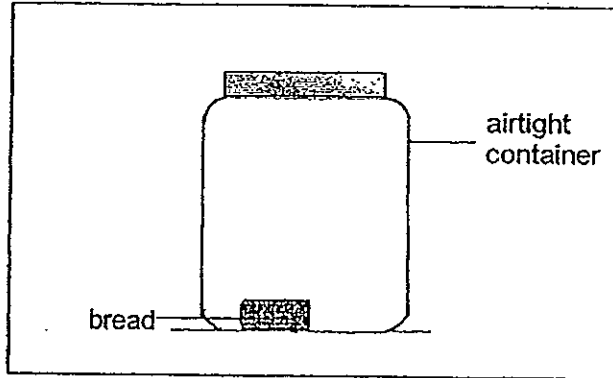


From the diagram, we can conclude that animal(s) \_\_\_\_\_.

- (1) A lives on land
- (2) C lives in water
- (3) A and B might be mammals
- (4) C and D are cold-blooded animals

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2. Shane needed to set-up a fair experiment to show that moisture is needed to make bread mouldy. She set up a control as shown in the diagram below.

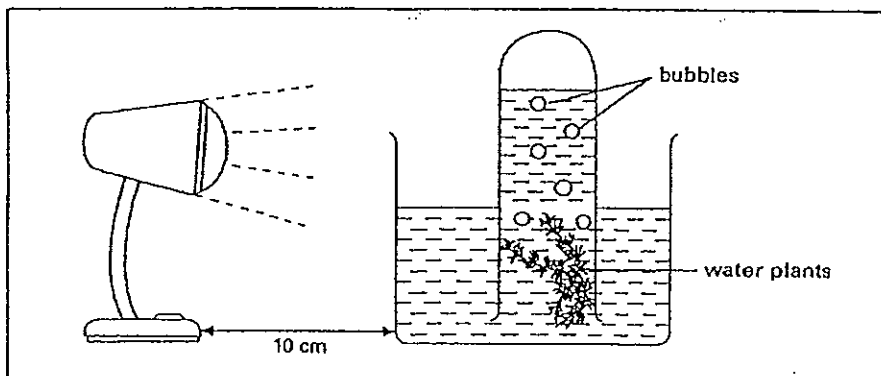


Which one of the following set-ups should she use to carry out the experiment?

<p>(1)</p>	<p>(2)</p>
<p>(3)</p>	<p>(4)</p>

(Go on to the next page)

3. Devi set up an experiment as shown in the diagram below.



What would happen to the bubbles when the distance between the lamp and the container is changed?

- (1) As the distance increases, the number of bubbles increases.
  - (2) As the distance increases, the number of bubbles decreases.
  - (3) As the distance decreases, the number of bubbles decreases.
  - (4) As the distance changes, the number of bubbles remains the same.
4. A farmer wanted to find out whether he could produce more vegetables by increasing the amount of carbon dioxide in the greenhouse. He planted the same amount of seeds of two different types of vegetable and watered them with the same amount of water. After a month, he collected the vegetables and recorded the mass of the vegetables in the table shown.

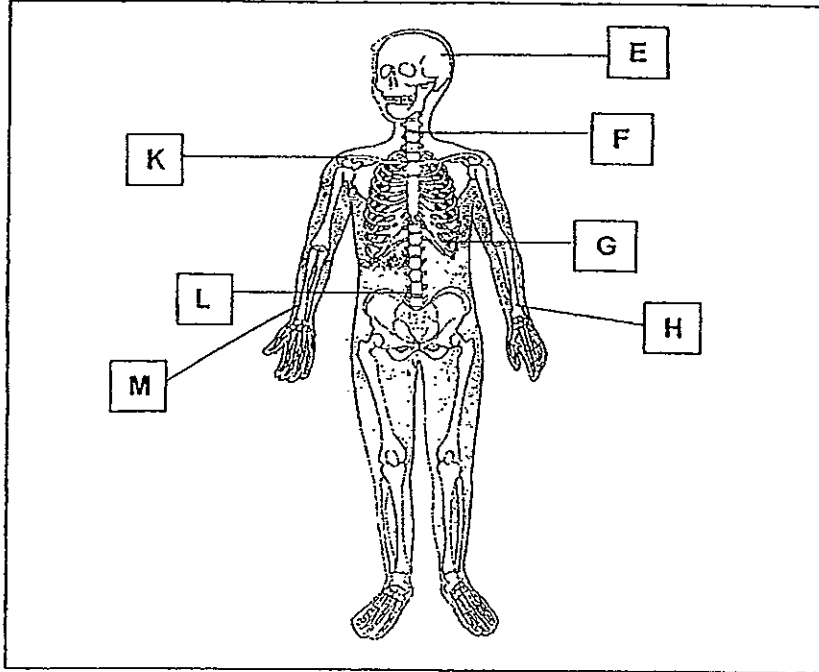
	Greenhouse 1		Greenhouse 2	
Percentage of carbon dioxide	0.05%		0.09%	
Type of vegetable	Spinach	Lettuce	Spinach	Lettuce
Mass of vegetable (g)	9	12	12	18

What can he conclude from the table above?

- (1) The amount of carbon dioxide only affects the growth of the spinach.
- (2) The amount of carbon dioxide does not affect the growth of the vegetable.
- (3) Spinach will always grow faster than lettuce at any amount of carbon dioxide.
- (4) The greater the amount of carbon dioxide, the greater the mass of the vegetable.

(Go on to the next page)

Look at the diagram shown below and answer questions 5 and 6.



5. Which parts of the skeletal system protects the brain, heart and lungs?

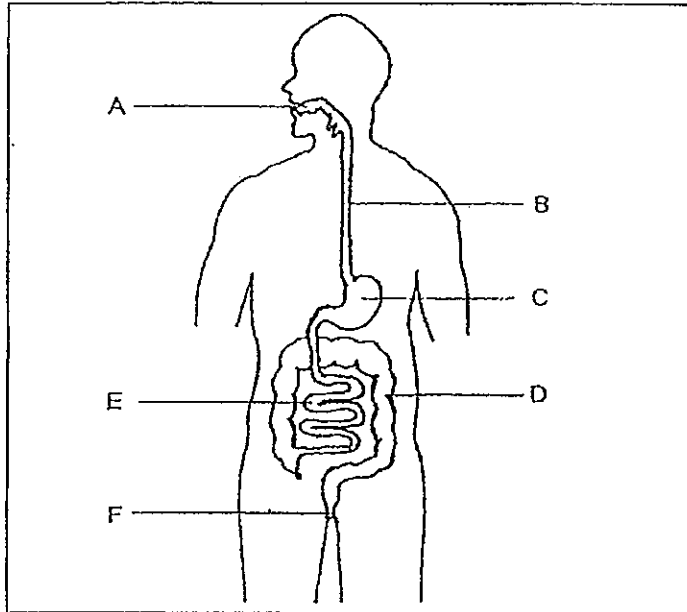
	Brain	Heart	Lungs
(1)	E	G	G
(2)	E	F	G
(3)	F	G	L
(4)	F	L	G

6. Trisha accidentally fell during her gymnastics lesson and she could not move her right arm. Her PE teacher suspected that she had fractured her bone(s). Which bone part would the PE teacher suspect?

- (1) H  
 (2) K  
 (3) L  
 (4) M

(Go on to the next page)

The diagram below shows the human digestive system. Refer to this diagram to answer Questions 7 and 8.



7. Where does digestion take place?

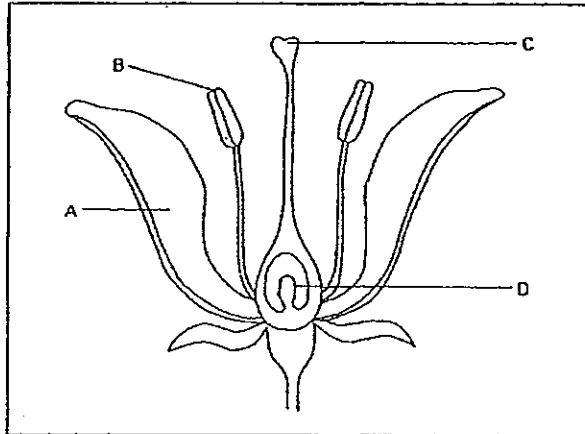
- (1) A, B and C only
- (2) A, C and E only
- (3) C, D and E only
- (4) C, D and F only

8. Which part of the digestive system does most digested food enter the blood stream?

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

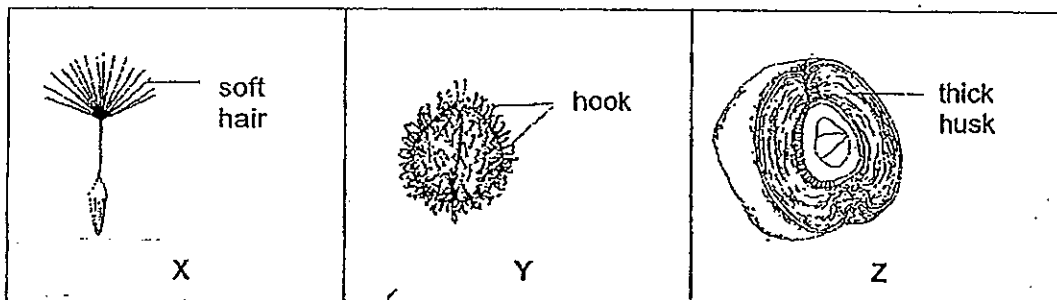
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9. An insect has just landed on a flower bringing along some pollen grains.



Which parts of the flower shown above are involved in the process of pollination?

- (1) A and B only  
 (2) B and C only  
 (3) C and D only  
 (4) B, C and D only
10. The diagrams show different fruits with special characteristics.

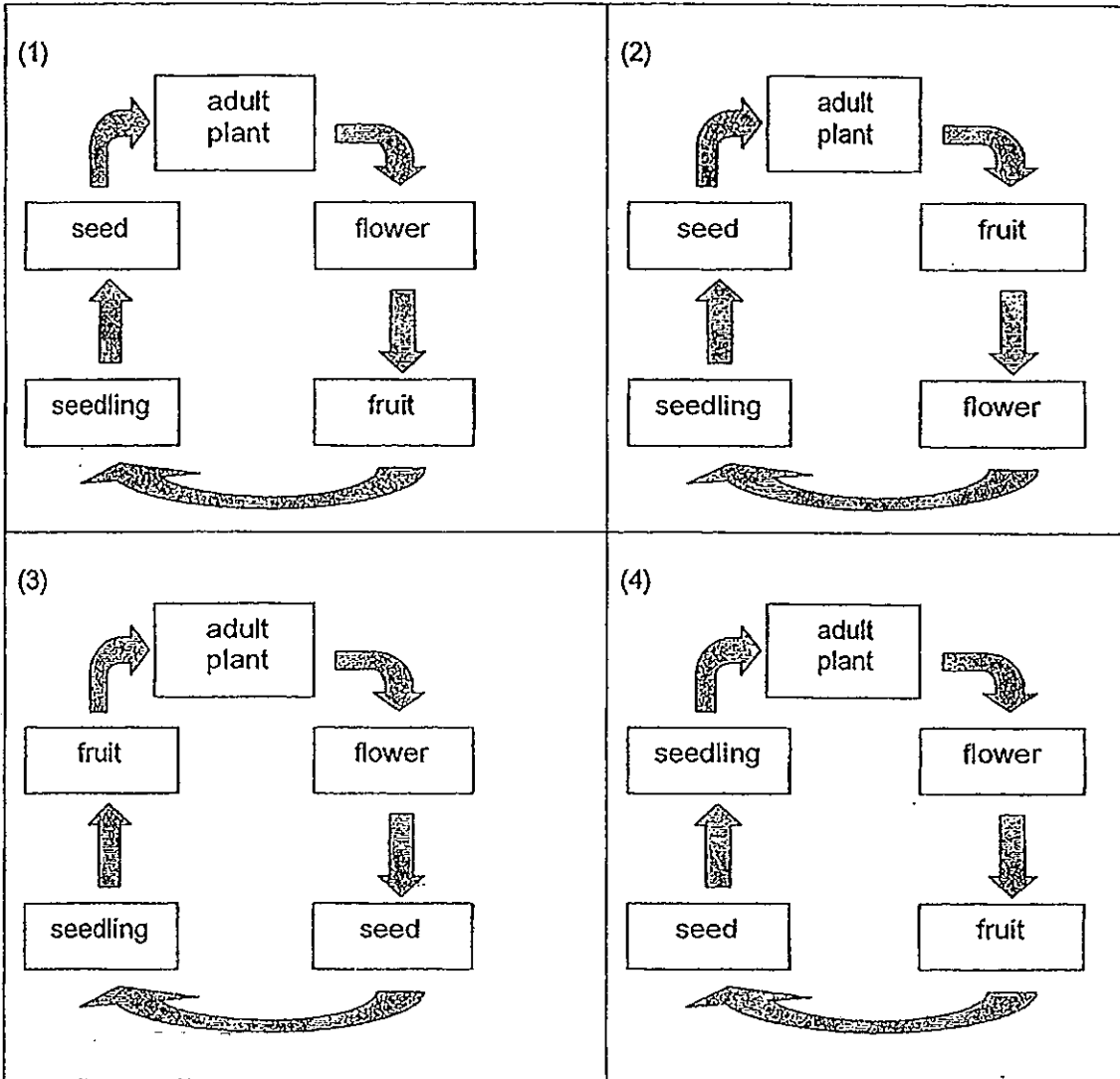


How are fruits X, Y and Z dispersed?

	Dispersed by animal	Dispersed by water	Dispersed by wind
(1)	X	Y	Z
(2)	Y	Z	X
(3)	Z	X	Y
(4)	X	Z	Y

(Go on to the next page)

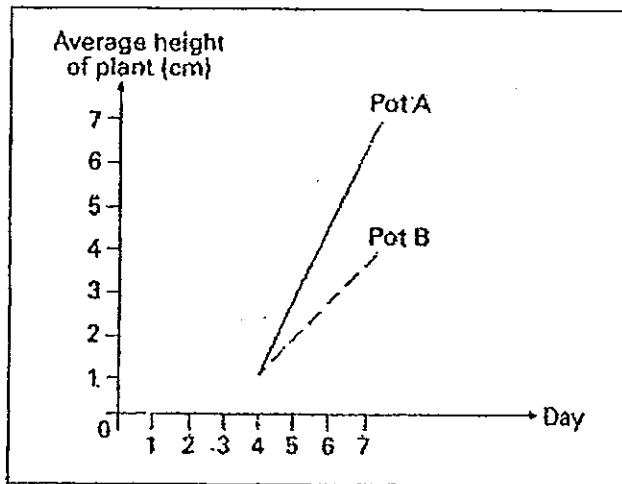
11. Which one of the following shows correctly the stages of development in a plant?



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12. Clarence put the same amount of seeds in 2 pots labelled A and B. He placed both pots in a school field, Pot A is placed under a shade and Pot B is placed under the hot sun. He watered them regularly with the same amount of water and recorded the growth of the seedlings daily in a graph below.

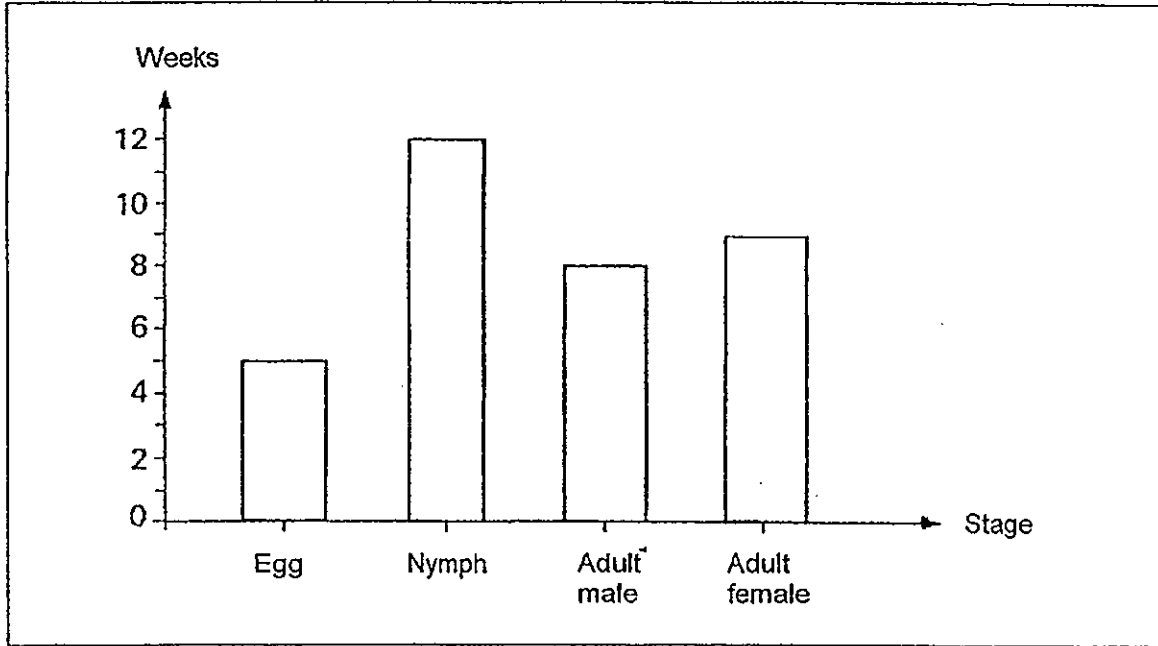


What can Clarence conclude from this experiment?

- (1) The amount of air affects the rate of growth
- (2) The amount of soil affects the rate of growth
- (3) The amount of light affects the rate of growth
- (4) The amount of food affects the rate of growth

(Go on to the next page)

The graph below shows the number of weeks at each stage in the life cycle of an insect. Refer to this graph to answer Questions 13 and 14.



13. How many weeks would the insect take to become an adult after the egg is hatched?
- (1) 12
  - (2) 20
  - (3) 25
  - (4) 29
14. Which of the following insects has a similar life cycle as the one above?
- (1) Beetle
  - (2) Butterfly
  - (3) Mosquito
  - (4) Dragonfly

(Go on to the next page)

15. Eye colour is a characteristic that can be passed down from parents to their children. The table below shows the eye colours of four students and their respective parents.

Eye colour			
Student		Mother	Father
Alison	Brown	Black	Brown
Beth	Black	Black	Brown
Claudia	Black	Black	Black
Dion	Brown	Brown	Black

Based on the table, which of the following statements is true?

- (1) When a child has black coloured eyes, her father will most likely have black coloured eyes.
- (2) When a child has brown coloured eyes, her father will most likely have brown coloured eyes.
- (3) When a child has brown coloured eyes, her mother will most likely have brown coloured eyes.
- (4) When a child has black coloured eyes, at least one of her parents will have black coloured eyes.

# METHODIST GIRLS' SCHOOL

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## CONTINUAL ASSESSMENT 2013 PRIMARY 5 SCIENCE

### BOOKLET A2

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 5. \_\_\_\_\_

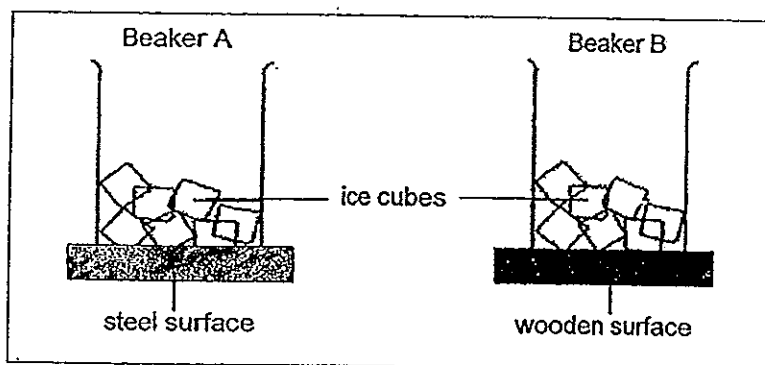
Date: 7 March 2013

This booklet consists of 16 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)

16. Two similar beakers, A and B, were filled with the same amount of ice cubes and placed on a steel surface and a wooden surface respectively as shown in the diagram below.



Four students made the following statements about the set-up.

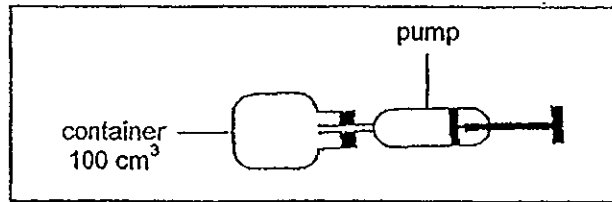
Student	Statement
Amy	Heat travels from the steel surface to the ice in Beaker A.
Belle	The ice cubes in Beaker B will melt faster than those in Beaker A.
Cindy	The steel surface feels cooler than the wooden one as it loses heat to the beaker of ice more quickly.
Debbie	The wooden surface feels cooler than the steel one as it loses heat more quickly from the surrounding air.

Who made the correct statements?

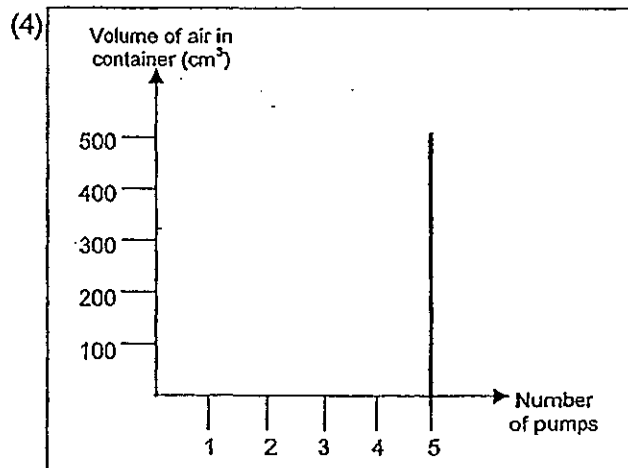
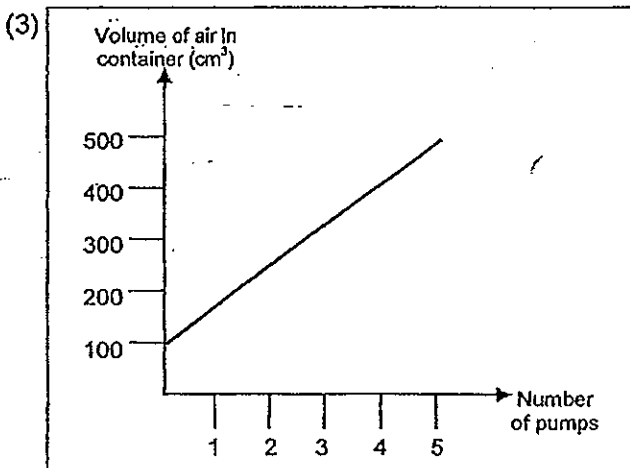
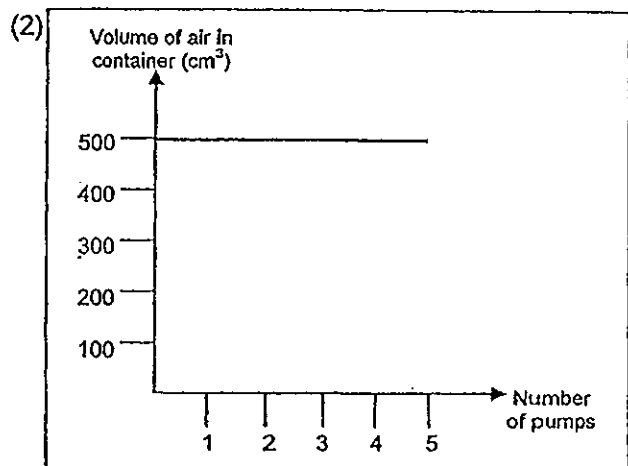
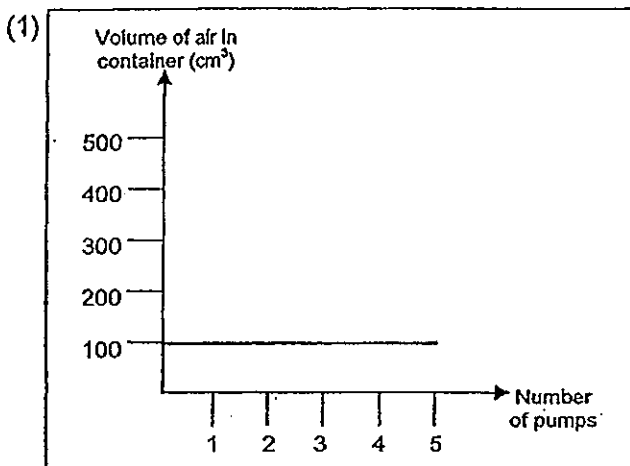
- (1) Amy and Belle only
- (2) Amy and Cindy only
- (3) Belle, Cindy and Debbie only
- (4) Amy, Cindy and Debbie only

(Go on to the next page)

17. Shanon had a container with a capacity of  $100 \text{ cm}^3$ . She fitted a pump to the container. Each time she pressed the pump,  $100 \text{ cm}^3$  of air would enter the container. Shanon pressed the pump 5 times.

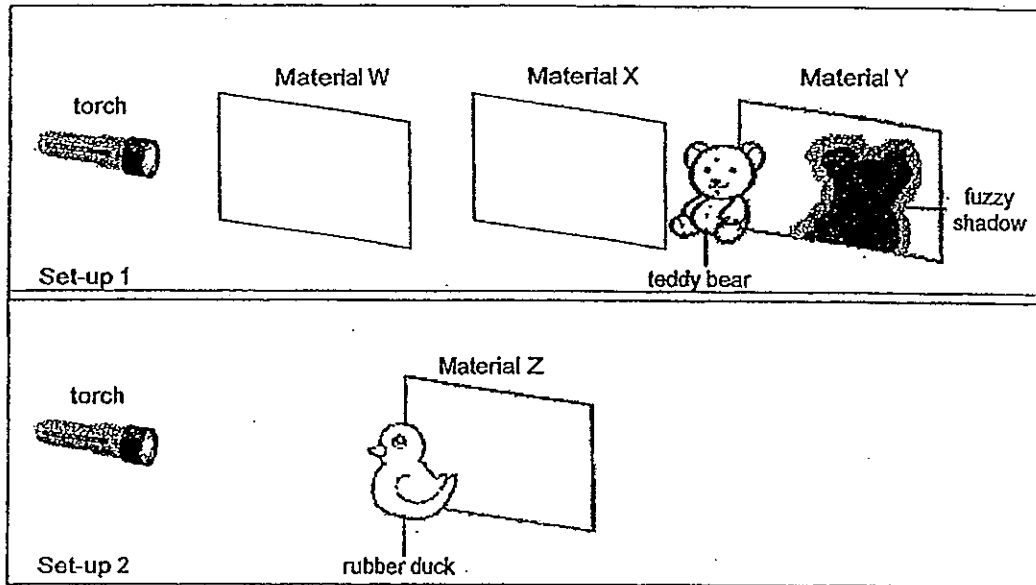


Based on the information given, which of the following graphs shows the change in volume of air in the container?



(Go on to the next page)

18. Naomi carried out an experiment using, Set-up 1 and Set-up 2. She placed four cards, W, X, Y and Z, each made of different materials, in different positions as shown in the diagrams below.



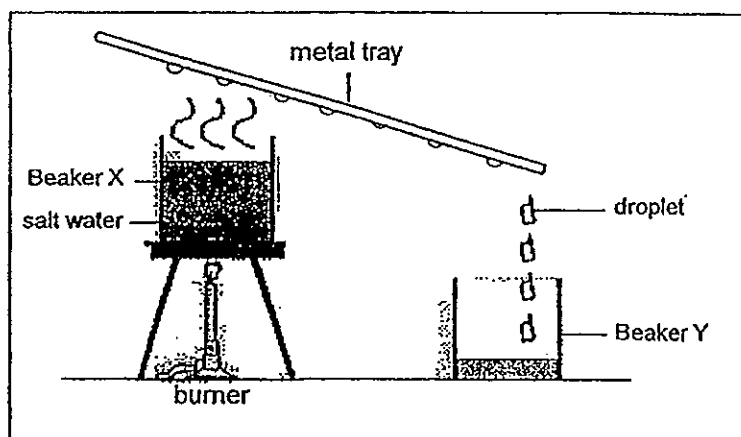
When the identical torches were switched on in both set-ups, a **fuzzy** shadow of the teddy bear was seen on Material Y. However, no image was seen on Material Z.

Which of the following sets describes Materials, W, X, Y and Z **correctly**?

	Material W	Material X	Material Y	Material Z
(1)	Transparent	Transparent	Opaque	Translucent
(2)	Transparent	Translucent	Opaque	Transparent
(3)	Opaque	Transparent	Transparent	Translucent
(4)	Transparent	Translucent	Opaque	Opaque

(Go on to the next page)

19. Beaker X containing sea water was heated. A metal tray was placed over Beaker X. Beaker Y was positioned underneath the end of the metal tray as shown in the diagram below.



After some time, water was collected at Beaker Y.

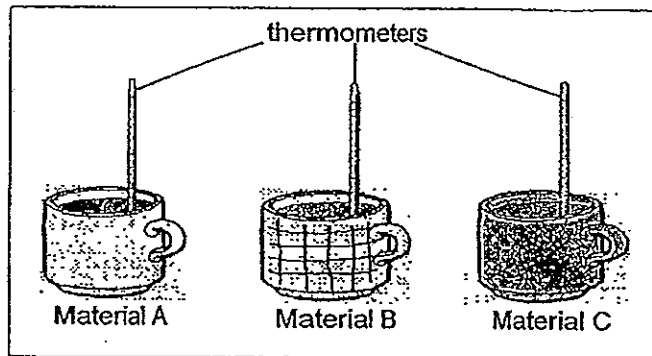
Which of the following best explains why the rate of collection of droplets decreases as the heating continues?

- (1) As the heating continued, Beaker X lost heat and became cooler, thus, condensation slowed down.
- (2) As the heating continued, Beaker X gained heat became hotter, thus, condensation sped up.
- (3) As the heating continued, the metal tray lost heat and became cooler, thus, condensation sped up.
- (4) As the heating continued, the metal tray gained heat and became hotter, thus, condensation slowed down.

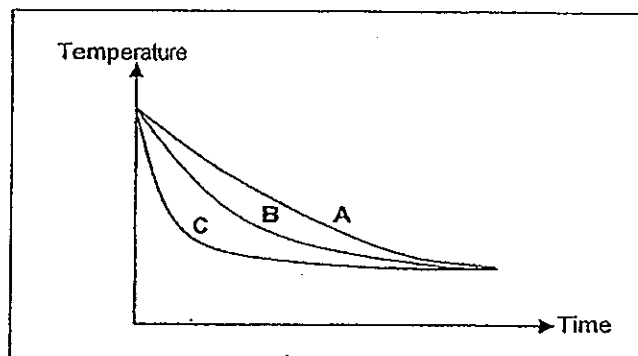
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20. Hannah carried out an experiment to find out how well different materials conduct heat. A, B and C are 3 cups made of different materials. Each was filled with the same amount of water at  $100^{\circ}\text{C}$  as shown in the diagram below.



The changes in the temperatures of the water in each cup were then recorded over a period of time. The graph below shows the temperature change in the water in the 3 cups.



Based on the graph, three students made the following conclusions.

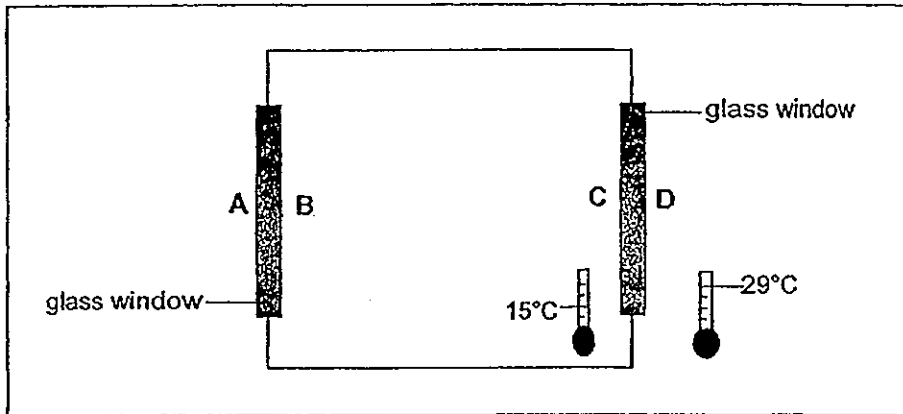
- Mona: Material C is the best conductor of heat.  
 Natalie: Material A is the best material to make a container for storing ice blocks.  
 Odelia: Material B is the best material to make a thermos flask to keep your coffee hot.

Who made the correct conclusion(s)?

- (1) Mona only
- (2) Natalie only
- (3) Natalie and Odelia only
- (4) Mona and Natalie only

(Go on to the next page)

21. The diagram below shows a simple floor plan of an air-conditioned room with two windows.



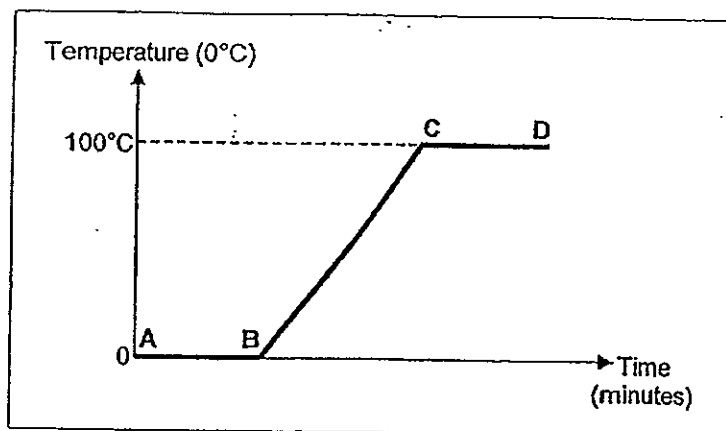
The temperature in the room measures 15°C while the temperature outside the room measures 29°C. After some time, water droplets formed on the windows.

Where will the water droplets most likely be found?

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

(Go on to the next page)

22. Candace heated a beaker of ice over a period of time. The temperature changes that took place during this period of time are shown in the graph below. Study the graph below carefully.

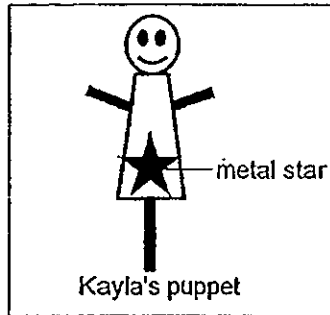


Which part(s) of the graph is heat gain taking place?

- (1) BC only
- (2) AB and BC only
- (3) BC and CD only
- (4) AB, BC and CD only

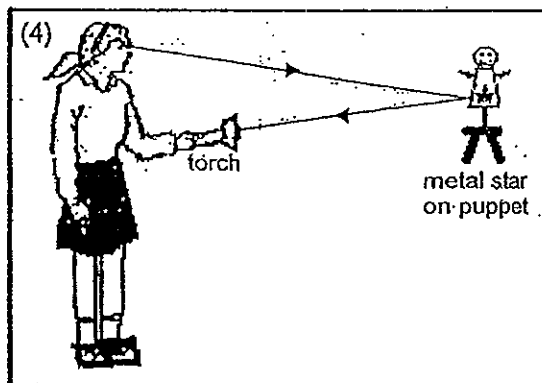
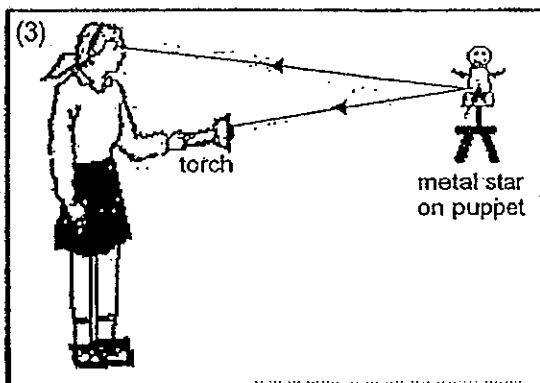
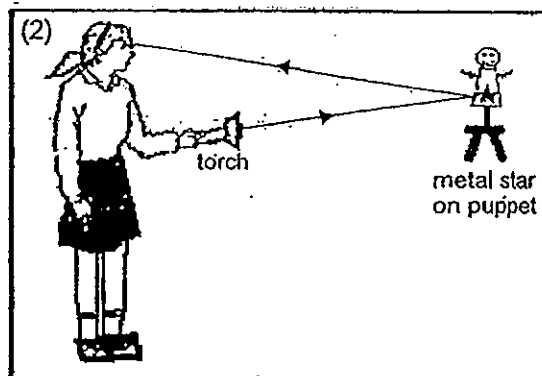
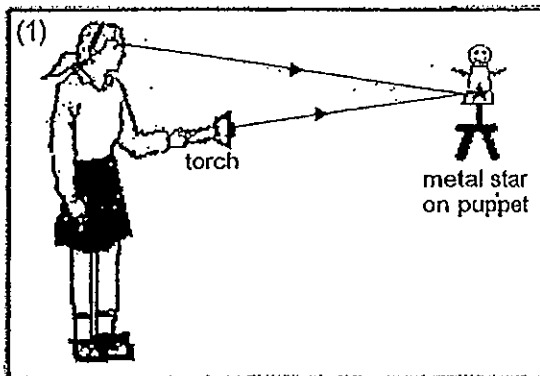
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23. Kayla made a stick puppet and added a huge metal star on its body. When she shone a light on the puppet, the star looked shiny.



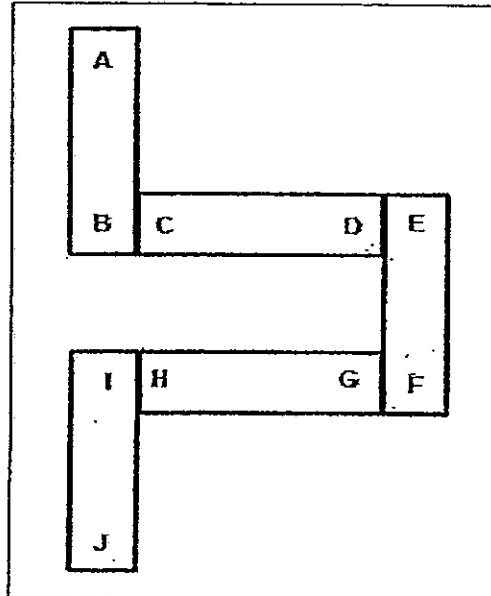
The arrows in each diagram below indicate the paths of light that allowed Kayla to see the light shining on the puppet's metal star.

Which of the following diagrams shows the correct paths of light?

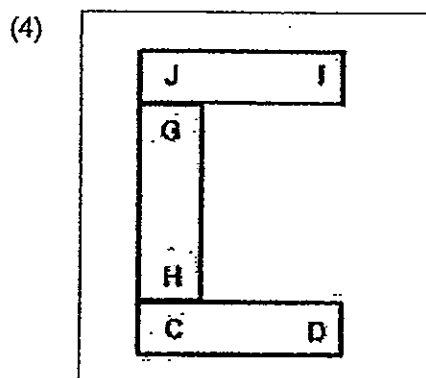
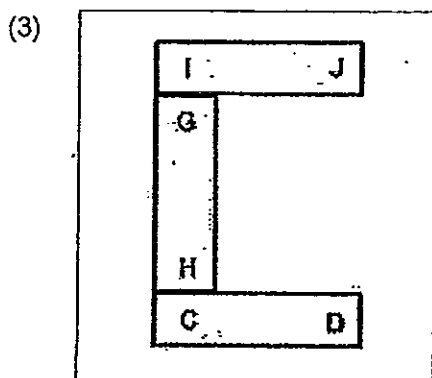
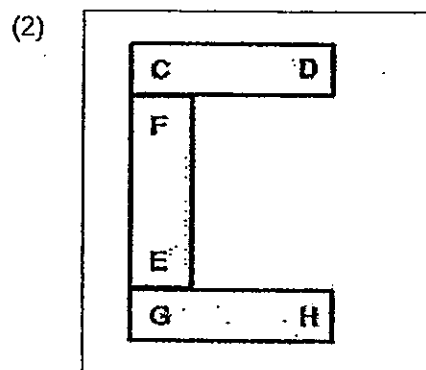
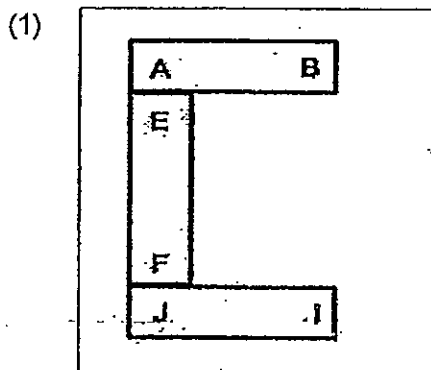


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24. The diagram shows how 5 bar magnets are attracted to each other and the letters representing the poles of the magnets.

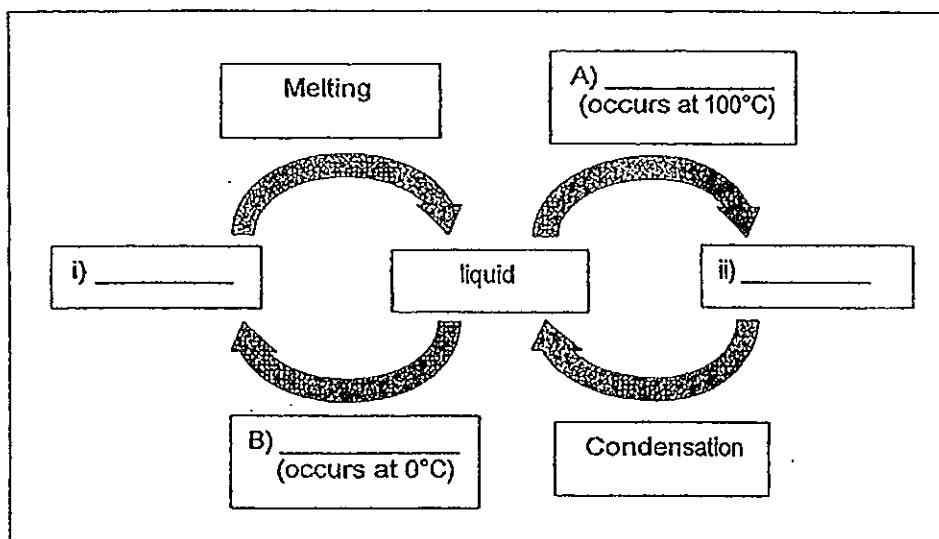


If 3 of the magnets are selected and placed next to each other, which one of the following arrangements below is a possible arrangement?



(Go on to the next page)

25. Study the diagram below.



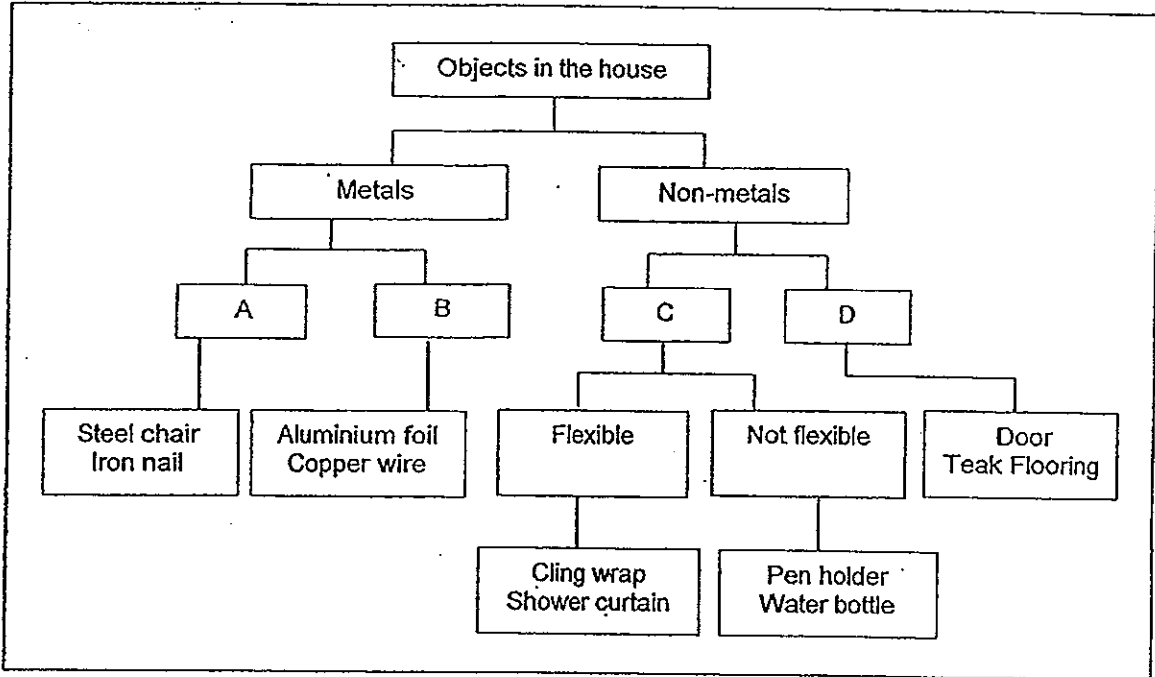
A and B are processes while i) and ii) are the states of matter.

Which of the following sets represent them correctly?

	A	B	i)	ii)
(1)	Evaporation	Freezing	Solid	Gas
(2)	Evaporation	Melting	Solid	Gas
(3)	Boiling	Freezing	Solid	Gas
(4)	Boiling	Melting	Gas	Solid

(Go on to the next page)

26. Study the flow chart below carefully.

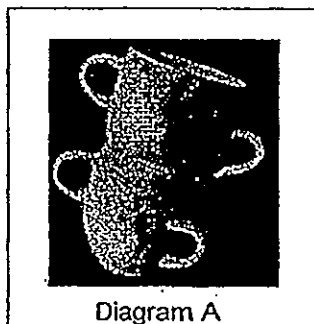


Which of the following sets **best** represents the groupings A, B, C and D?

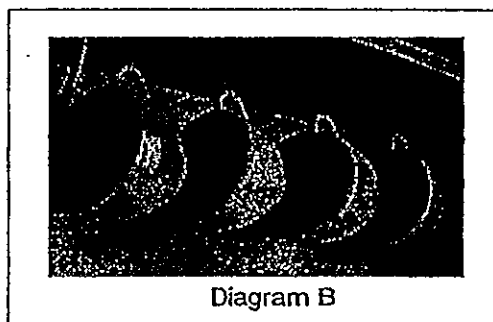
	A	B	C	D
(1)	Magnetic	Non-magnetic	Plastic	Wood
(2)	Non-magnetic	Magnetic	Rubber	Plastic
(3)	Rusty	Non-rusty	Cloth	Wood
(4)	Can be scratched	Cannot be scratched	Rubber	Wood

(Go on to the next page)

27. Natalie helped her mother wash the cups after tea. She stacked the wet cups, one on top of another as shown in the Diagram A below and left them to dry.



Natalie's mother suggested that the cups would dry faster if she hung them as shown in Diagram B below.



The following statements are some of the reasons that Natalie could think of with regards to her mother's suggestions.

Reason 1:	The cups in Diagram A are stacked up, hence, the cups have less exposed surface area, resulting in a lower rate of evaporation.
Reason 2:	The cups in Diagram B are hung with space apart, hence, the cups have a larger exposed surface area, resulting in a higher rate of evaporation.
Reason 3:	The cups in Diagram B are hung in a row, hence, the cups are blocking each other, resulting in a lower rate of evaporation.

Which of the reason(s) above is(are) correct?

- (1) 1 only
- (2) 1 and 2 only
- (3) 2 and 3 only
- (4) 1, 2 and 3 only

(Go on to the next page)



28. Raju wanted to find out whether a nail was magnetized. He put the nail near a magnet, a compass and a paper clip. He recorded his observations below.
- A. It repelled the magnet.
  - B. It attracted the magnet.
  - C. It attracted the paper clip.
  - D. It could move the compass needle.

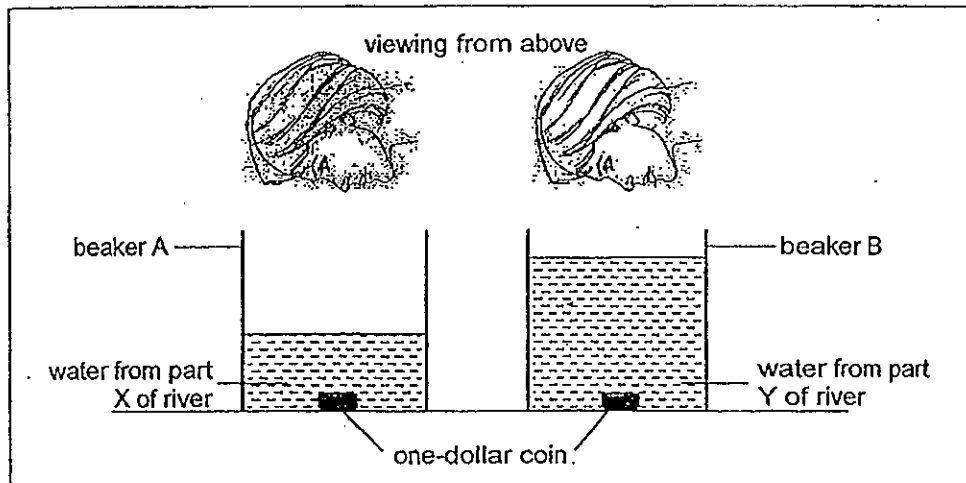
From which of the above observations can he **be sure** that the nail was magnetized?

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

29. Tessa wanted to study how clear the water in a river was. She collected water from two different parts of a river, X and Y.

In her experiment, she used two identical beakers, A and B. At the bottom of each beaker, she placed a one-dollar coin. Then she poured water from part X of the river into beaker A until the coin could no longer be seen from the top.

She repeated the experiment using the water from part Y of the river with beaker B. The results of the experiment are shown below.



From the results above, Tessa concluded that beaker B contains clearer water.

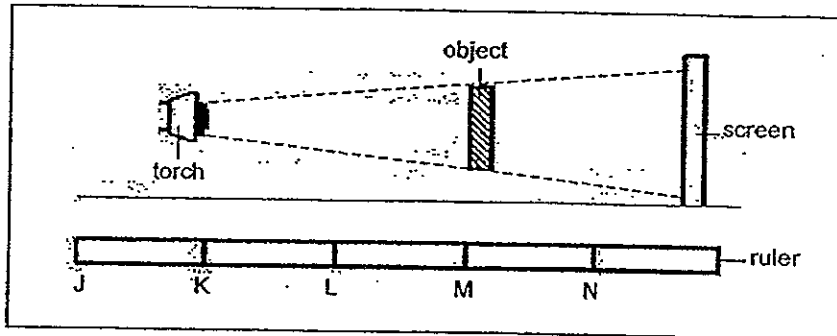
Which of the following statement(s) was(were) the correct reason(s) for her conclusion?

- A: Tessa could see the one-dollar coin through a greater volume of water in beaker B as compared to beaker A.
- B: Water in part Y of the river is clearer as light can pass through a larger volume of water, allowing Tessa to see the one-dollar coin at the bottom of the beaker.
- C: Water in part X of the river is less clear as light can only pass through a smaller volume of water.

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

(Go on to the next page)

30. Rebecca placed an object at position M and shone a torch at position K. A shadow was cast on the screen as shown in the diagram below.



Rebecca wanted to obtain a smaller shadow than what was formed earlier. At which positions of the ruler should the torch and the object be placed so as to obtain a smaller shadow on the screen?

	Position of torch	Position of object
A	K	N
B	J	K
C	L	M
D	J	M

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

(Go on to the next page)

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## CONTINUAL ASSESSMENT 2013 PRIMARY 5 SCIENCE

### BOOKLET B1

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

#### INSTRUCTIONS TO CANDIDATES

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

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

Class: Primary 5. \_\_\_\_\_

Date: 7 March 2013

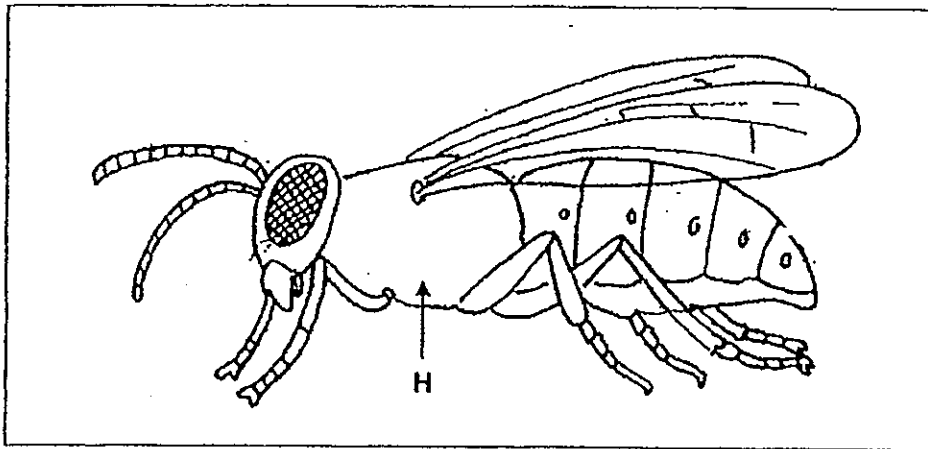
<b>Booklets A1 &amp; 2</b>	<b>/ 60</b>
<b>Booklet B1</b>	<b>/ 20</b>
<b>Booklet B2</b>	<b>/ 20</b>
<b>TOTAL</b>	<b>/ 100</b>

This booklet consists of 8 printed pages including this page.

For questions 31 to 44, write your answers in this booklet.

The number of marks available is shown in brackets ( ) at the end of each question or part question. (40 marks)

31 Study the picture below and answer the questions carefully.



(a) The above organism is an insect. Why? (1 m)

Reason 1: \_\_\_\_\_

\_\_\_\_\_

Reason 2: \_\_\_\_\_

\_\_\_\_\_

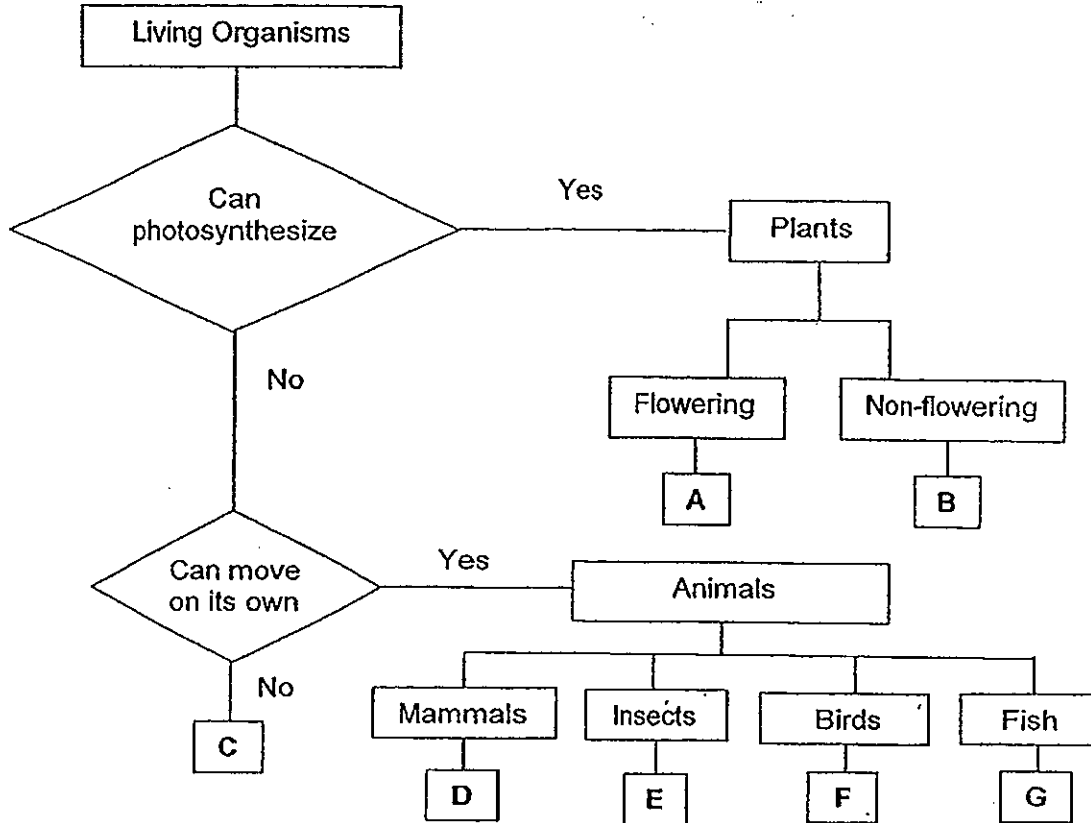
(b) Name the part labelled H. (1 m)

\_\_\_\_\_

\_\_\_\_\_

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32 Study the classification chart as shown below.



(a) Classify the following organisms by writing the correct letters A, B, C, D, E, F or G in the boxes given. (2 m)

	Living Organism	Letter
(i)	Dolphin	
(ii)	Penguin	
(iii)	Fern	
(iv)	Fungi	

(b) Why is the Fern classified in the respective box? (1 m)

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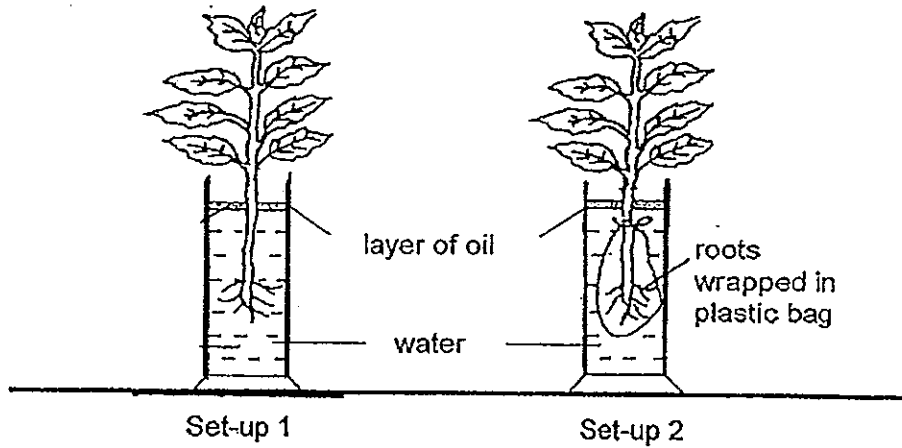
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33 Two similar plants are placed in identical jars, each containing the same amount of water as shown in the diagram below.



(a) What will happen to the plant in Set-up 2 after a week?  
Give a reason for your answer.

(1 m)

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(b) What is the purpose of the layer of oil in both set-ups?

(1 m)

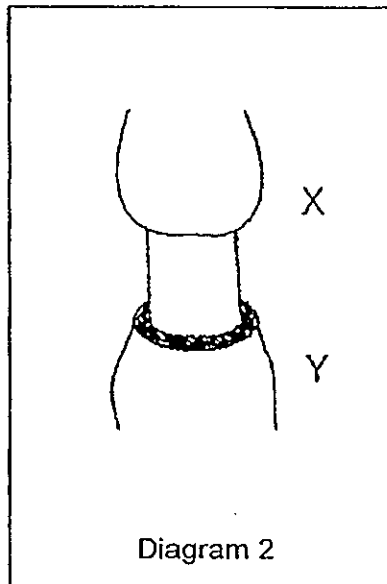
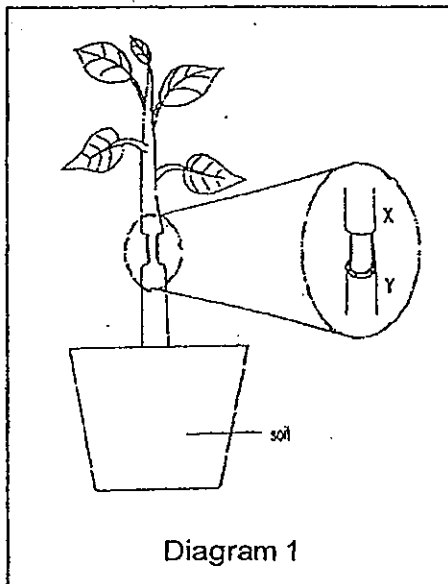
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34 Mr Png removed a ring from the stem between X and Y of a plant as shown in diagram 1. After some time, the stem was swollen as shown in diagram 2.



(a) Explain clearly what caused the swell at the parts X and Y. (2 m)

At X: \_\_\_\_\_  
 \_\_\_\_\_

At Y: \_\_\_\_\_  
 \_\_\_\_\_

(b) Mr Png then plucked off a leaf from the plant and examined the leaf under a microscope. He noticed there were a lot of tiny 'openings' on the underside of the leaf.

(i) What are these 'openings'? \_\_\_\_\_ (½ m)

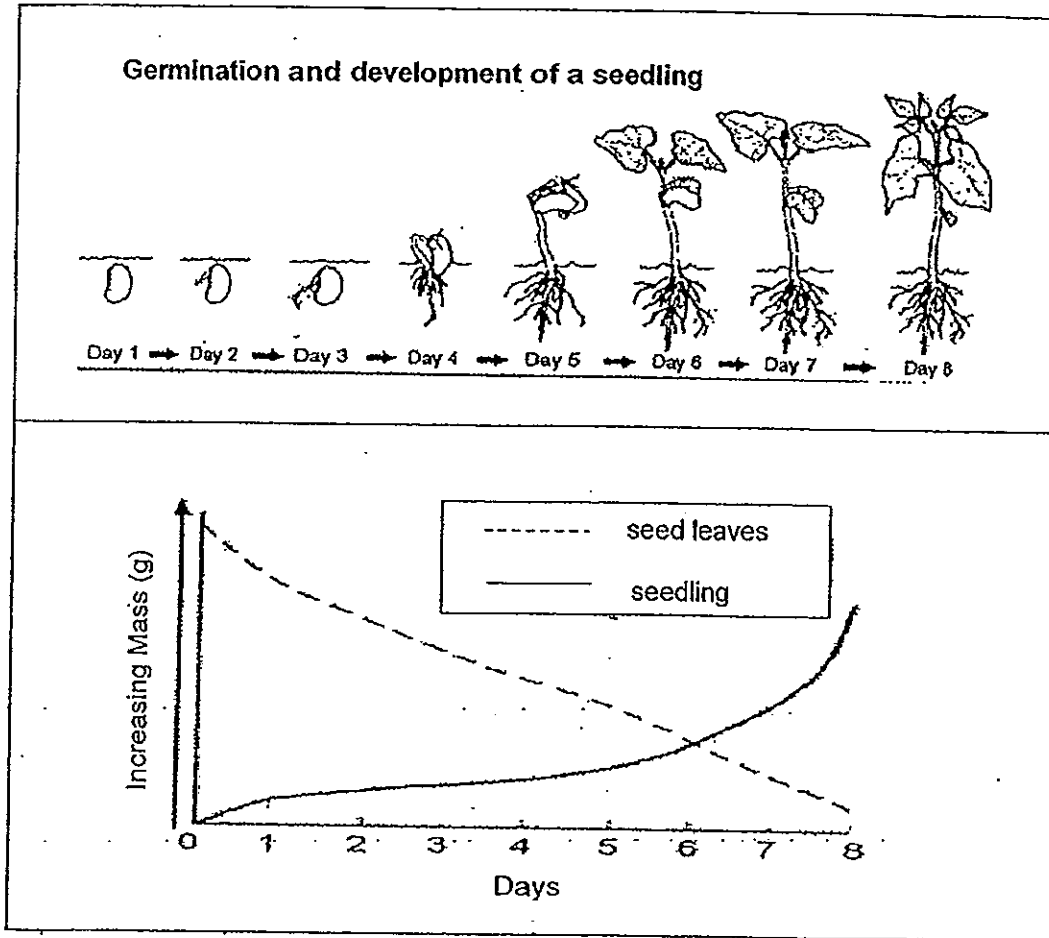
(ii) What is the function of these tiny 'openings'? (1 m)

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

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35 The picture and the graph below show the germination and development of a seedling.



(a) Based on the graph, what happened to the seed leaves from Day 1 to Day 8? Give a reason for your answer. (1½ m)

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(b) What is the relationship between the mass of the seed leaves and the mass of the seedling? (1 m)

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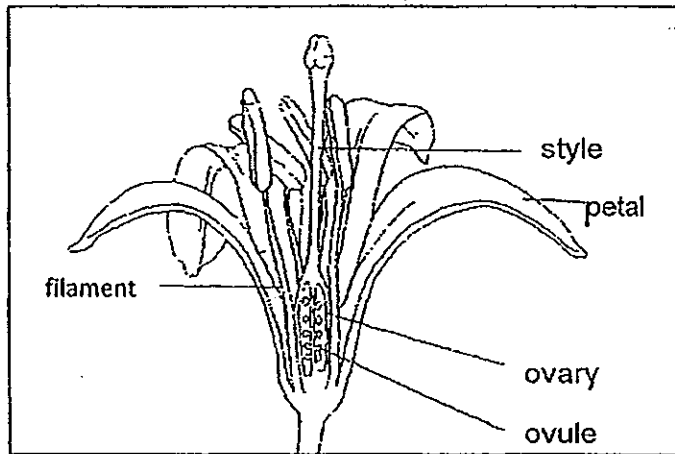
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36 Sue found a flower in her garden and drew a cross section of it as shown in the diagram below.



(a) Fill in the blanks with the correct flower parts or the functions of the parts given. (2 m)

Flower part	Explanation
style	<hr/> <hr/>
Ovule	<hr/> <hr/>

(b) By observing and touching the flower, Sue concluded that the pollen grains found in the flower are dispersed by insects. State a reason for her conclusion. (1 m)

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(c) Explain how fertilisation takes place in a flower after the pollen grains have landed on the flower. (1 m)

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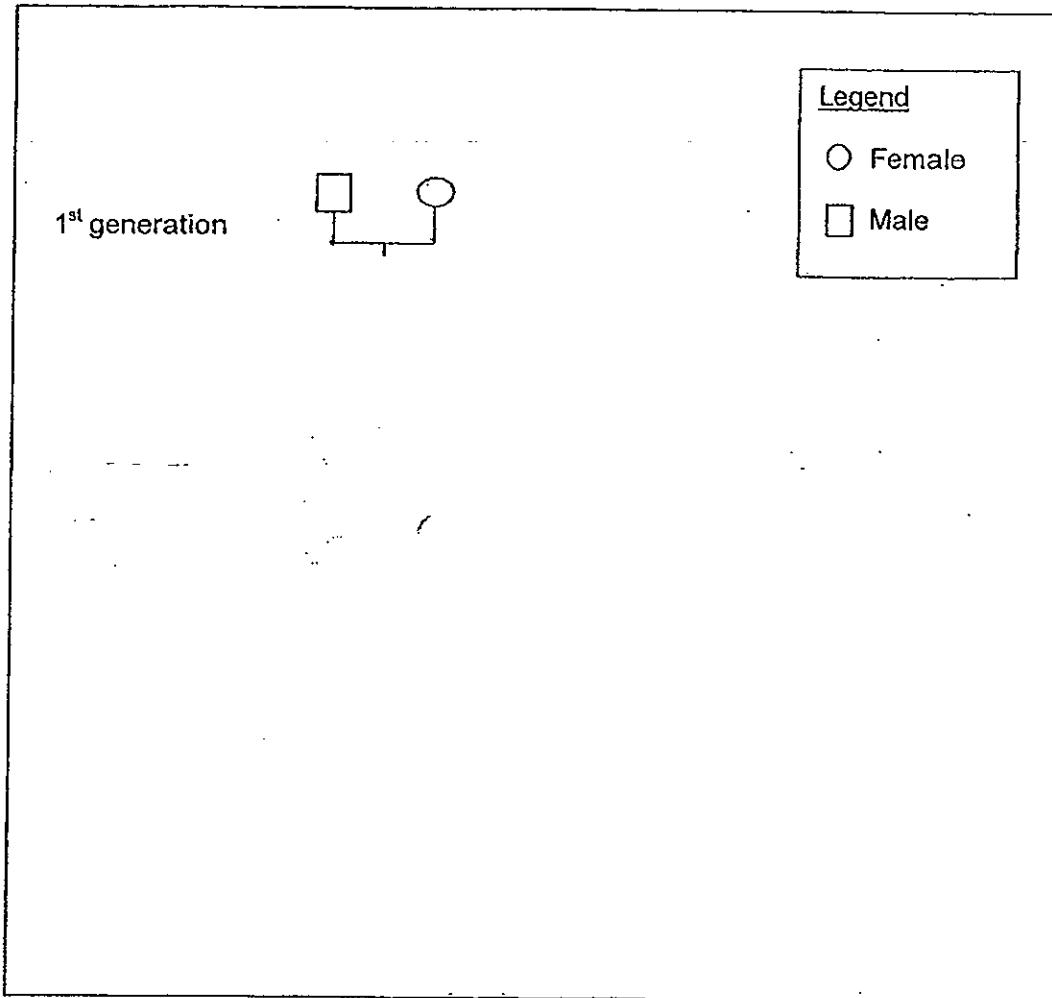
37 John's family consists of three generations.

1<sup>st</sup> Generation: Paternal grandfather and Paternal grandmother  
Maternal grandmother

2<sup>nd</sup> Generation: Father  
Mother  
2 paternal aunts  
1 maternal aunt  
1 maternal uncle

3<sup>rd</sup> Generation: John  
2 sisters

Based on the above information, complete John's family tree in the space provided.  
Indicate "John" in the family tree. (3 m)



# METHODIST GIRLS' SCHOOL

Founded in 1887



## CONTINUAL ASSESSMENT 2013 PRIMARY 5 SCIENCE

### BOOKLET B2

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

#### INSTRUCTIONS TO CANDIDATES

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

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

Class: Primary 5. \_\_\_\_\_

Date: 7 March 2013

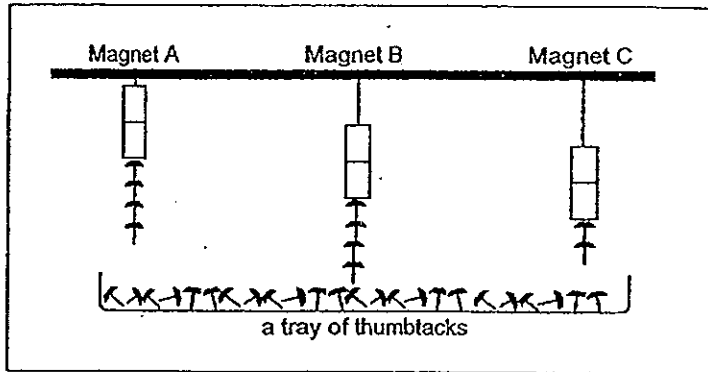
Booklet B2	/ 20
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This booklet consists of 10 printed pages including this page

For questions 38 to 44, write your answers in the space provided.

(20 marks)

38. Jenny wanted to test the strength of Magnets, A, B, and C. She hung the magnets on a rod and placed a tray of thumbtacks below them. The diagram below shows what she had observed.



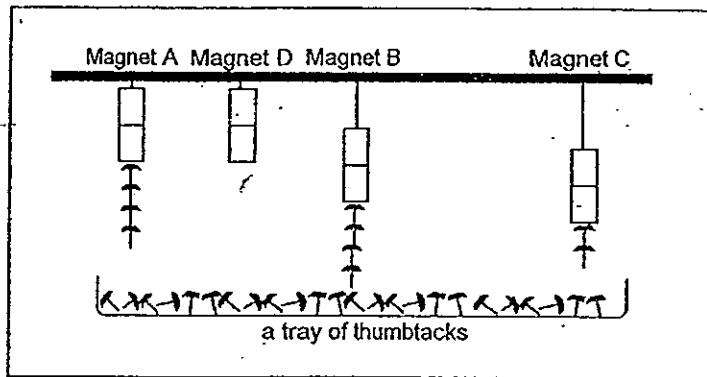
- (a) Based on her observation above, she concluded that the strongest magnet is Magnet A. Do you agree with her? Give a reason to support your answer. (1m)

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Jenny then placed a stronger magnet, Magnet D, between Magnet A and Magnet B as shown in the figure below.



- (b) What will happen to Magnets A and B.? (1m)

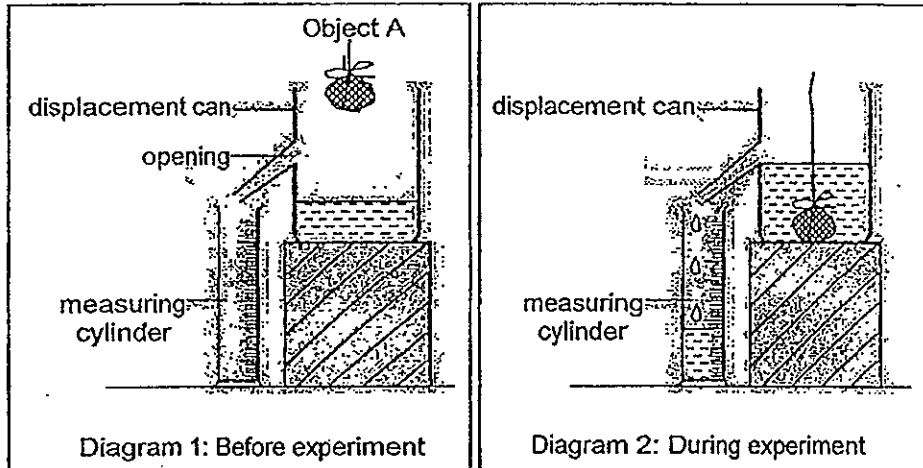
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39. Jasmine wanted to find the volume of Object A. She tied Object A to a string, before lowering it into the water in the displacement can as shown in Diagram 1.



Her friend said that the amount of water collected in the measuring cylinder as shown in Diagram 2 is not an accurate volume of Object A.

- (a) What could be done to improve on the execution of the experiment? (1m)

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Assuming that Jasmine had made an improvement to her experiment as mentioned in (a), she then replaced Object A with a bottle cork (tied to a string), and repeated the steps above to find out the volume of the cork.

- (b) Give a reason why her method to find the volume of the cork above would not be accurate? (1m)

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- (c) What could be done so that she could obtain the volume of the bottle cork accurately? (1m)

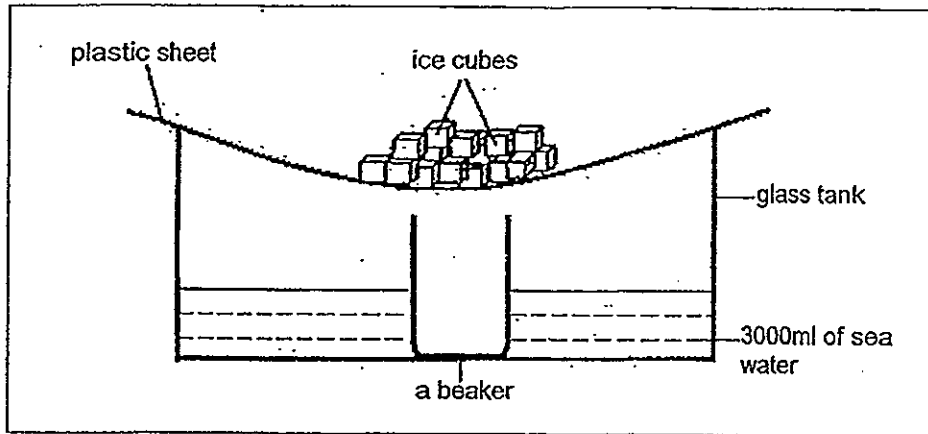
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40. A group of students performed an experiment to obtain pure water from sea water by using the set-up as shown in the diagram below.



- (a) After two hours, 500ml of pure water was found in the beaker. Explain how the pure water was obtained. (2m)

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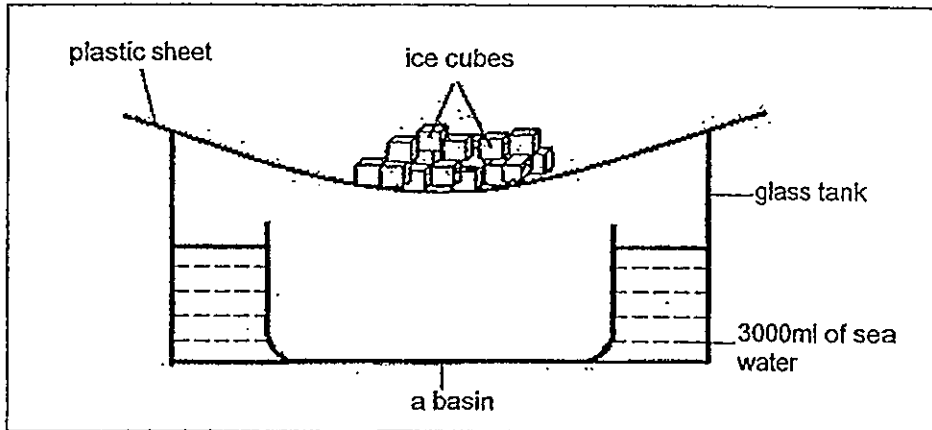
- (b) What was the purpose of placing the ice cubes on the plastic sheet? (1m)

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At the same time, another group of students did a similar experiment with the same amount of sea water and ice cubes. However, they replaced the beaker with a large basin to collect water as shown in the diagram below.



- (c) After two hours, only 200ml of pure water was found in the basin.  
Why was the amount of pure water collected in this set-up lower than the set-up earlier? (1m)

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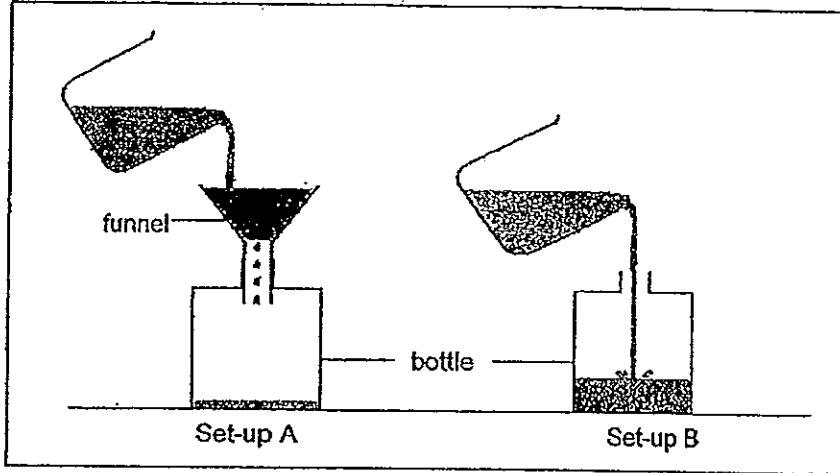
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41. Sandra poured water into two similar bottles using the two set-ups, A and B as shown in the diagram below.



She noticed that the bottle in set-up B filled up faster than in set-up A.

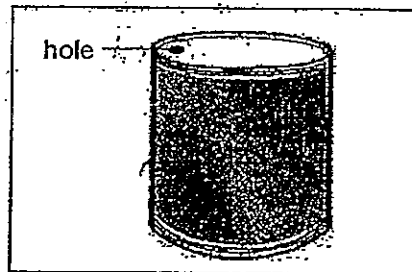
- (a) Explain clearly why the bottle in set-up B fills up faster than that in set-up A. (1m)

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Sandra wanted to transfer a can of condensed milk into a jar. She made a hole on the top of the can as shown in the diagram below.



Sandra realised that the milk did not flow out as fast as she had wanted it to be.

- (b) What should she do to allow the milk to flow out faster?  
Explain your answer.

(1m)

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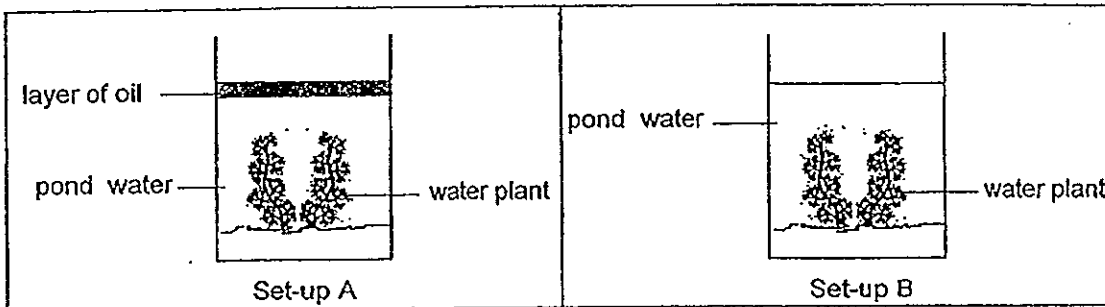
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42. Clara performed an experiment to see the effect of a layer of oil on water plants. She prepared two set-ups, A and B, as shown in the diagram.



Except for the layer of oil in set-up A, the other variables in both set-ups were kept constant.

A few weeks later, she observed that the water plants in set-up A died but the water plants in set-up B remained healthy.

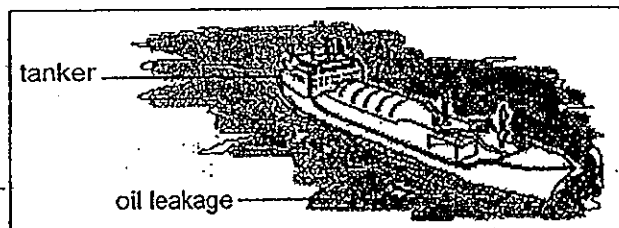
- (a) Give a reason why the water plants in set-up A died. (1m)

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The picture below shows leakage of oil from a tanker in the sea.



- (b) What is the effect of this leakage of oil in the sea? (1m)

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- (c) Explain how the leakage of oil shown above could affect the fishes in the sea. (1m)

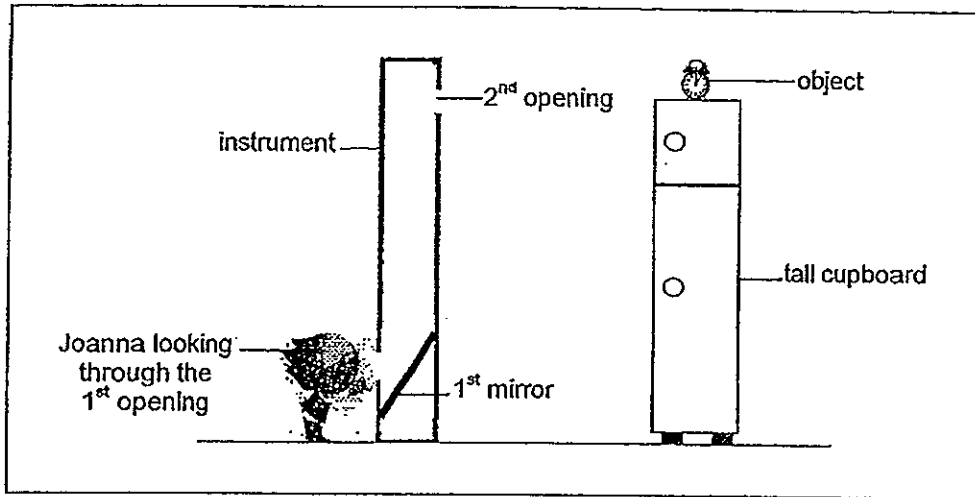
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43. Joanna was trying to look at what was on the top of the tall cupboard. She made an instrument to help her to do so.



Joanna realised that she was unable to see the object. She thought of adding a second mirror to her instrument.

- (a) Where should she add the second mirror?  
In the diagram above, draw the second mirror clearly. (1m)
- (b) After adding another mirror in (a), would Joanna be able to see the object using her instrument if there was no light at all in the room?  
Explain your answer. (1m)

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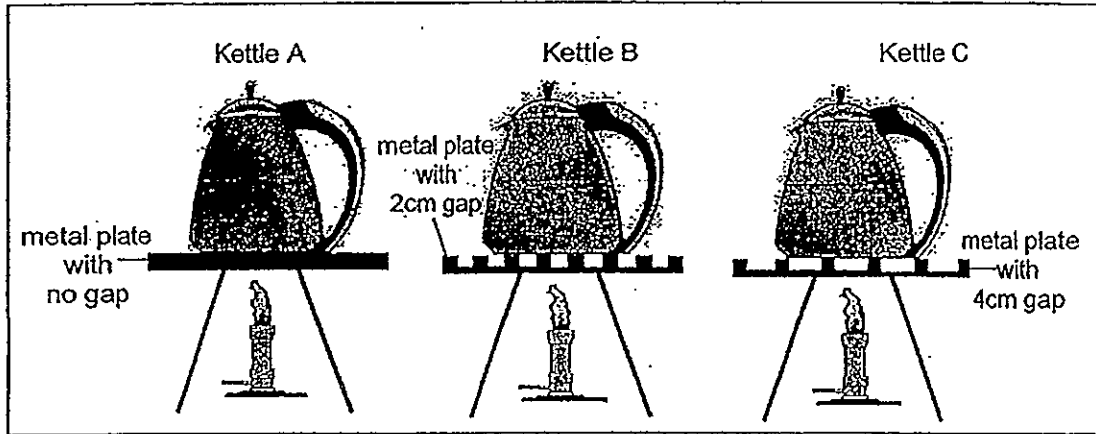


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44. In an experiment, Jasmine placed three identical kettles, A, B and C, on three metal plates of the same material with different surfaces. The kettles contained the same amount of water at room temperature. The metal plates were then heated with the same amount of heat from below as shown in the diagram.



She then recorded the time taken for each kettle to boil at  $100^{\circ}\text{C}$  as shown in the table below.

Kettle	Type of metal plate	Time taken to boil at $100^{\circ}\text{C}$ (minutes)
A	Metal plate with no gap	10
B	Metal plate with 2cm gap	15
C	Metal plate with 4cm gap	20

- (a) Based on the information in the table above, Kettle A took the shortest time to boil. Explain the reason for this. (1m)

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- (b) What can she conclude about the relationship between the length of the gap in the metal plate and the time taken for the kettle to boil at  $100^{\circ}\text{C}$ ? (1m)

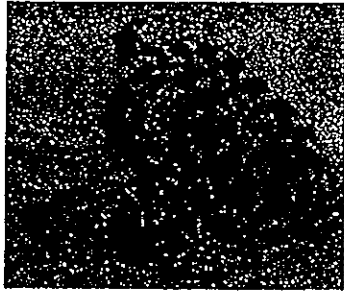
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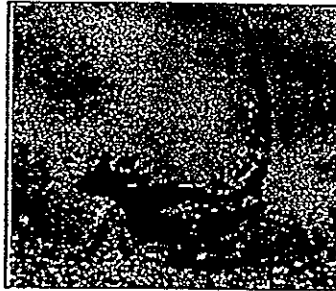
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In a desert, the Horned Viper, (which is a kind of snake) crawls on the hot sand while the Thorny Devil, (which is a kind of lizard) runs using its four legs.



Horned Viper



Thorny Devil

Based on this observation, the statements below are made to give reasons why the Thorny Devil can move over a longer distance on hot sand compared to the Horned Viper in a desert.

- (c) Write a tick (  $\checkmark$  ) if the statement is a correct reason and a cross ( X ) if the statement is a wrong reason in the boxes below. (2m)

	Statement	
(i)	The Thorny Devil has a smaller surface area of contact with the hot sand, resulting in less heat being transferred to its body.	
(ii)	The Horned Viper has a larger surface area of contact with the hot sand, resulting in more heat being transferred to its body.	
(iii)	The Thorny Devil has thorns as its outer covering which protect it from the heat of the sun.	
(iv)	The Horned Viper has scales as its outer covering which does not protect it from the heat of the sun.	



# ANSWER SHEET

**EXAM PAPER 2013**

**SCHOOL : MGS**

**SUBJECT : PRIMARY 5 SCIENCE**

**TERM : CA1**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
3	4	2	4	1	4	2	3	2	2	4	3	1	4	4	2	1

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
2	4	4	2	4	2	4	3	1	2	4	4	2

31)a)1)It has 3 main body party.

2)It has 3 pairs of legs.

b)Thorax.

32)a)D, F, B, C

b)The fern is a living organism, can photosynthesize, is a plant and is non-flowering.

33)a)It will die. As the plastic bag is waterproof, water in the jar is unable to be absorbed by the roots. Water is needed for the plant to survive and the plant does not have it.

b)To prevent evaporation.

34)a)At X: Food from the leaves were unable to reach the bottom part of the plant as the phloem was removed when it was cut off.

At Y: Water and mineral salts absorbed by the roots were unable to reach to reach the upper part of the plant as the xylem was removed when it was cut off.

b)i)Stomata

ii)It allows the exchange of gases to take place.

35)a) They decreased in mass, because the seedling is using up the food stored in the seed leaves.

b) The greater the mass of the seedling, the lower the mass of the seed leaves.

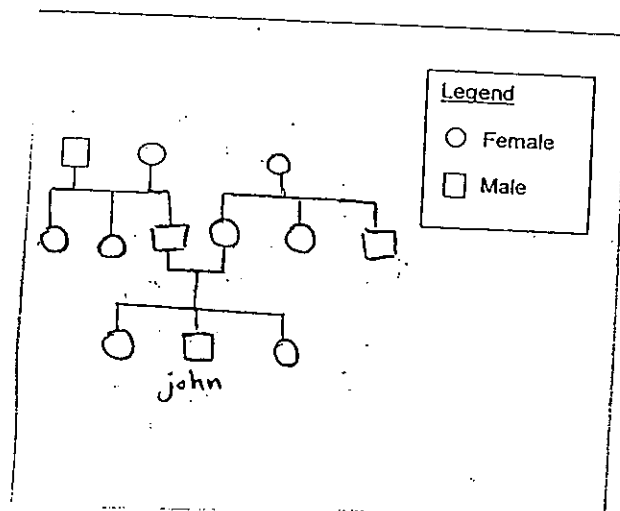
36)a) Style : It supports the stigma.

Ovule: Contains female reproductive cells and will develop into seeds after fertilisation.

b) The flower is colourful and the stigma is sticky.

c) The pollen grains from the anther land on the stigma and a pollen tube grows down to the ovary where the male cell fuses with the female cell.

37)



38)a) Yes. It was able to attract the most amount of thumbtacks from the greatest distance.

b) They will be attracted to magnet D.

39)a) Ensure that the water level is just below the opening of the can before the experiment.

b) The cork will float and hence not the entire cork will be submerged in water.

c) She should tie a heavy object to the cork when submerged it.



40)a)The molecules in the sea water gained kinetic energy and evaporated. When the water vapour came into contact with the cooler surface of the plastic sheet, it lost heat and condensed into water droplets. When the water droplets became too heavy, they dropped into the beaker.

b)To cool the plastic sheet so that condensation can take place.

c)The surface area is smaller due to the big basin and hence the evaporation rate is slower in two hours.

41)a)Air occupies space. In set-up B, air could escape while in set-up A, it could not, thus water in set-up A could not flow in faster than set-up B.

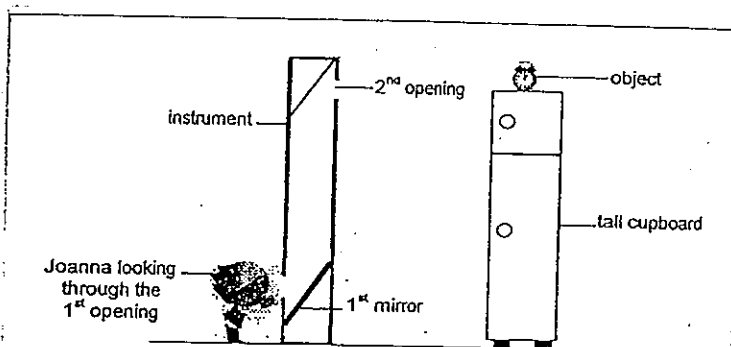
b)She should poke another hole in the can Air can enter through the extra hole and push the condensed milk out through the other hole.

42)a)Carbon dioxide was unable to pass through the oil and without carbon dioxide, the plant was unable to make food and hence died.

b)It will pollute the sea and kill sea creatures.

c)Plants cannot photosynthesize, fishes will die as there will be no more supply of oxygen.

43)a)



b)No. Light will not be reflected by the second mirror to the first and Joanna cannot see the object as there is no light source.

44)a)Kettle A had the largest surface of contact with metal plate more heat is transferred.

b)The greater the length of the gap in the metal plate, the longer the time taken for the Kettle to boil at 100°C.

c)i) ✓

ii) ✓

iii)X

iv)X