



NANYANG PRIMARY SCHOOL

PRIMARY 5 SCIENCE

**SEMESTRAL ASSESSMENT 1
2018**

BOOKLET A

Date: 8 May 2018

Duration: 1 h 45 min

Name: _____ ()

Class: Primary 5 ()

**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.**

Booklet A consists of 22 printed pages including this cover page.

Section A (28 x 2 marks = 56 marks)

For each question from 1 to 28, 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 provided.

1. The diagram below shows a bird's nest fern.

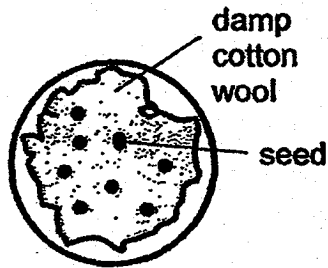


A single fern produces thousands of spores. Each spore has the ability to grow into an adult plant.

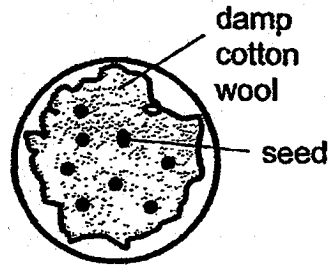
Which one of the following best explains why the fern needs to produce a large number of spores?

- (1) To ensure the fern will grow more fruits.
- (2) To ensure the fern can carry out wind pollination.
- (3) To ensure the young plants can grow well together.
- (4) To ensure some of the spores will grow into adult plants.

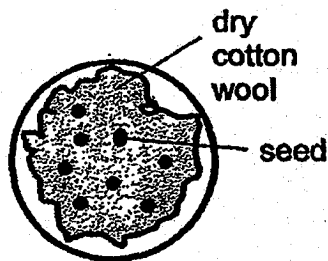
2. Arushi set up an experiment with 4 set-ups, W, X, Y and Z, as shown in the diagram below.



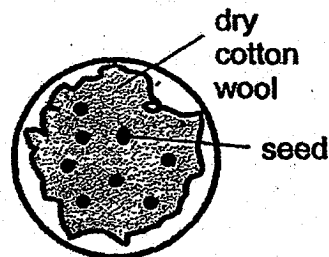
Set-up W
Placed next to the window



Set-up X
Placed in the cupboard



Set-up Y
Placed next to the window

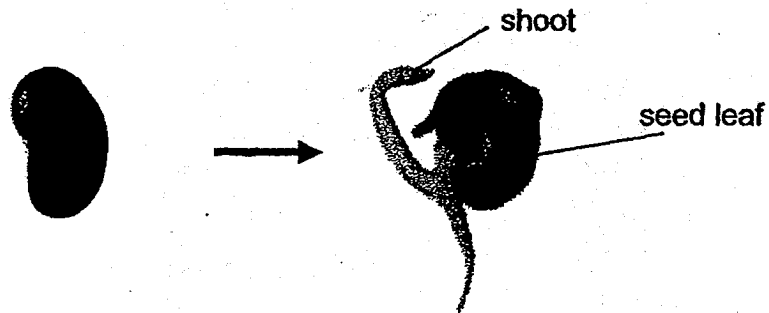


Set-up Z
Placed in the cupboard

In which of the following set-up(s) will the seeds germinate after a week?

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

3. Xu Long carried out an experiment on a seed growing into a seedling as shown below.



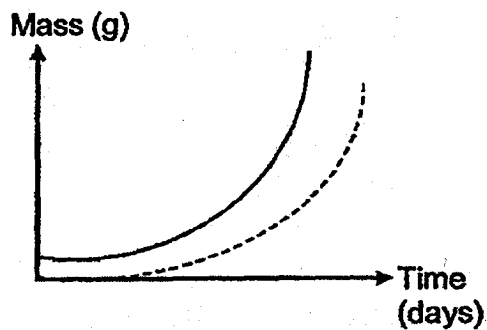
Which one of the following graphs correctly shows the changes in the mass of the seed leaf and the mass of the shoot of the seedling during the experiment?

Key:

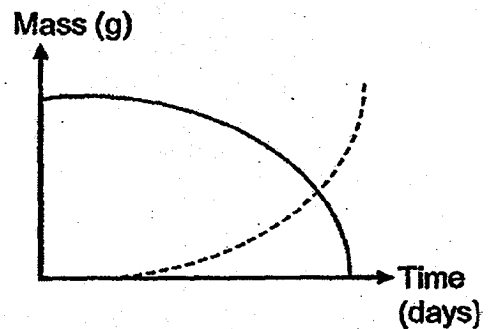
Seed leaf _____

Shoot -----

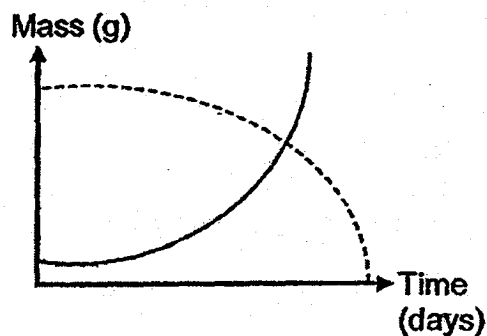
(1)



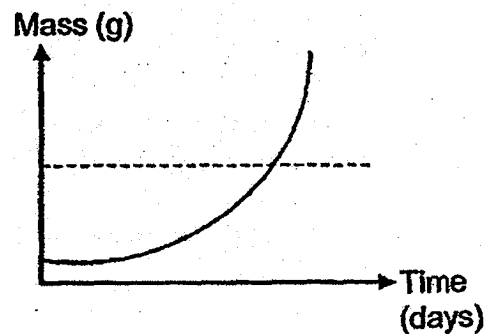
(2)



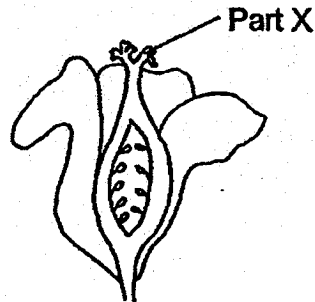
(3)



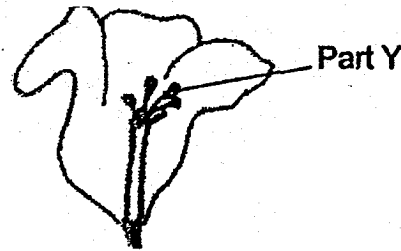
(4)



4. Mike carried out an experiment with Plant W which produced 2 different types of flower, A and B. The diagrams below show the parts of Flower A and Flower B.



Flower A



Flower B

Mike rubbed Part Y of Flower B against Part X of Flower A. Then, he observed that there was some brown substance from Part Y that was left on Part X.

Which of the following statements are correct?

- P Flower A might develop into a fruit as pollination and fertilisation could have taken place.
- Q Flower B might develop into a fruit as pollination and fertilisation could have taken place.
- R Flower A will not develop into a fruit as it does not have male reproductive parts.
- S Flower B will not develop into a fruit as it does not have female reproductive parts.

- (1) P and Q only
- (3) Q and R only

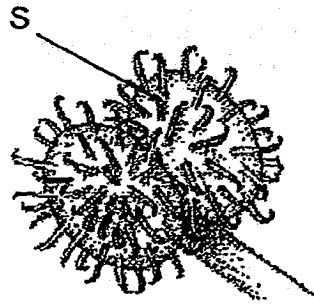
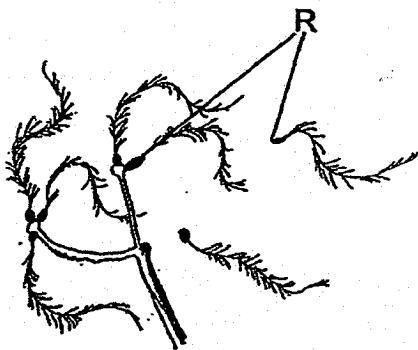
- (2) P and S only
- (4) R and S only

5. Many fruits and seeds have special structures to help in their dispersal.

Which one of the following statements does not explain the importance of dispersal of seeds or fruits?

- (1) It ensures extinction of the plants.
- (2) It prevents overcrowding of the plants.
- (3) It ensures that young plant will grow more healthily.
- (4) It ensures that the plants will not compete with each other for basic needs.

6. The diagrams below show 2 fruits, R and S.



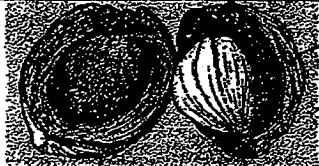
Based on the above diagrams, what are their methods of dispersal?

	Fruit	Method of dispersal
A	R	Water
B	R	Wind
C	S	Animals
D	S	Wind

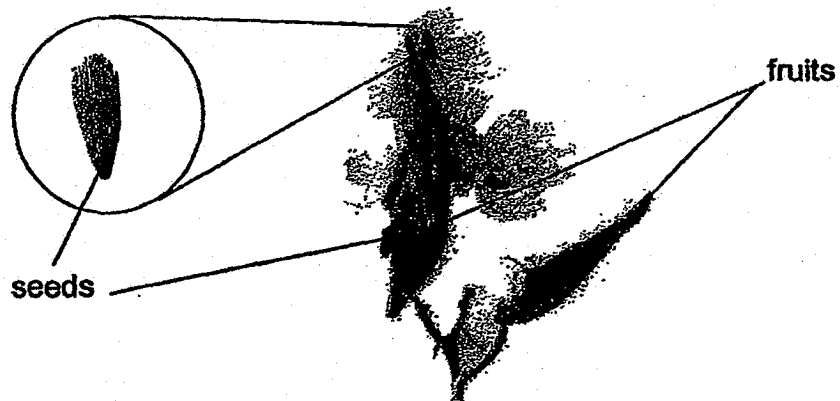
- (1) A and C only
(3) B and C only

- (2) A and D only
(4) B and D only

7. The table below shows the method of dispersal of some fruits and seeds.

Method of dispersal	Fruits / Seeds
W	
X	
Y	
Z	

The diagram below shows the fruits and seeds of Plant F.

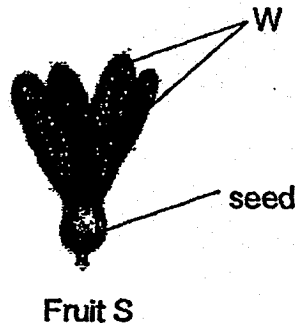


Based on the diagram above, which of the following are the methods of dispersal for Plant F?

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

Study the diagram and table below and answer Questions 8 and 9.

The diagram below shows fruit S.



Yusof carried out an experiment with the fruit. He used one fruit S with 4 part W and released the fruit from the same height above the ground and recorded the distance travelled from the starting point to the point the fruit landed on the ground. He then removed part W one at a time and repeated the experiment.

Number of Part W on Fruit S	Distance travelled (m)
4	5
3	3
2	1
1	0.5

8. What is the aim of Yusof's experiment?

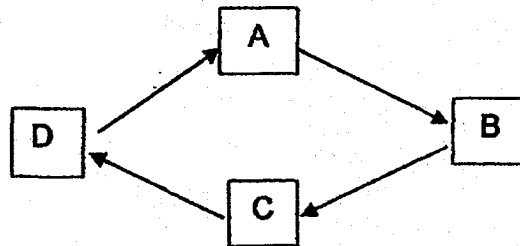
- (1) To find out the longest distance Fruit S can travel.
- (2) To find out how the size of the seed affects the distance Fruit S travels.
- (3) To find out how the length of part W affects the distance Fruit S travels.
- (4) To find out how the number of part W affects the distance Fruit S travels.

9. Which of the following should Yusof do to ensure that the experimental results are reliable?

- A Measure the length of each part W.
- B Measure the time taken for the fruit to land on the ground.
- C Repeat each of the experiment at least 3 times.

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

10. The diagram below shows processes, A, B, C and D, involved in the sexual reproduction of flowering plants.



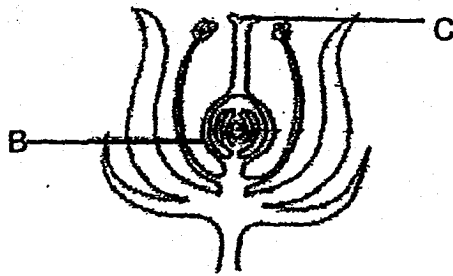
Which one of the following could represent processes A, B, C and D?

	A	B	C	D
(1)	seed dispersal	fertilisation	germination	pollination
(2)	fertilisation	seed dispersal	germination	pollination
(3)	seed dispersal	pollination	germination	fertilisation
(4)	germination	seed dispersal	pollination	fertilisation

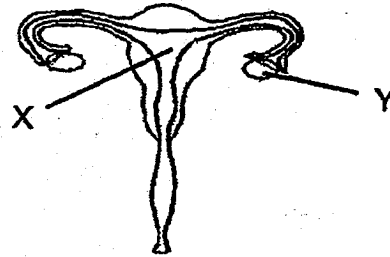
11. Which one of the following sets of statements about pollination and seed dispersal is correct?

	Pollination	Seed dispersal
(1)	Pollen grains can only be transferred from the stigma to the anther by insects.	Some wind-dispersed seeds have wing-like structures.
(2)	Pollen grains are transferred by the wind only.	All juicy fruits are dispersed by explosive action.
(3)	Pollen grains are transferred from the anther to the stigma by wind or animals.	Fruits with fibrous husks are dispersed by water.
(4)	Pollen grains that are sticky are transferred by animals.	Seeds that are dispersed by animals must be small.

12. The diagrams below show the reproductive parts of a flower and a female human.



Flower



Human (female)

Which of the following represents the parts where the female reproductive cells are produced?

- (1) B and X
- (2) B and Y
- (3) C and X
- (4) C and Y

13. Which of the following statements about reproduction in humans are correct?

- A Many sperms are needed to fertilise the egg.
- B Fertilisation takes place inside the body of the female.
- C After fertilisation has taken place, the fertilised egg will develop into a baby.

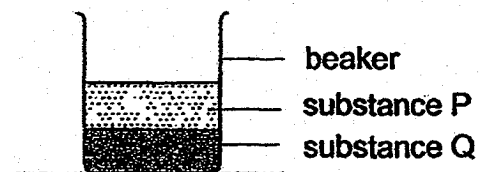
- (1) A and B only
- (2) A and C only
- (3) B and C only
- (4) A, B and C

14. Which of the following statement(s) about the development of a human baby in the womb is/are correct?

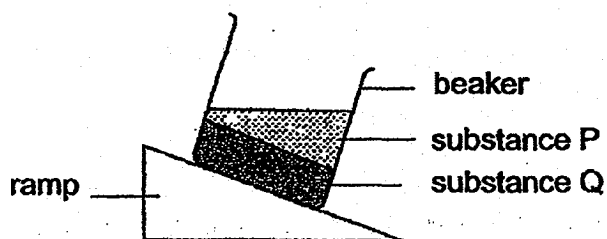
- P The human baby developed from one fertilised egg cell.
- Q It will take more than a year for the baby to develop and be ready for birth.
- R The baby will have genetic information from only one of his or her parents.

- (1) P only
- (2) P and Q only
- (3) Q and R only
- (4) P, Q and R

15. The diagram below shows a beaker filled with two substances, P and Q.



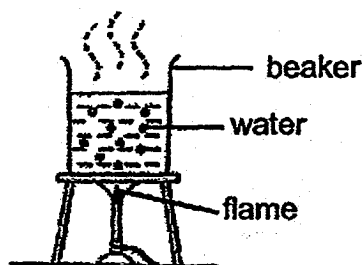
The beaker was then placed on a ramp as shown below.



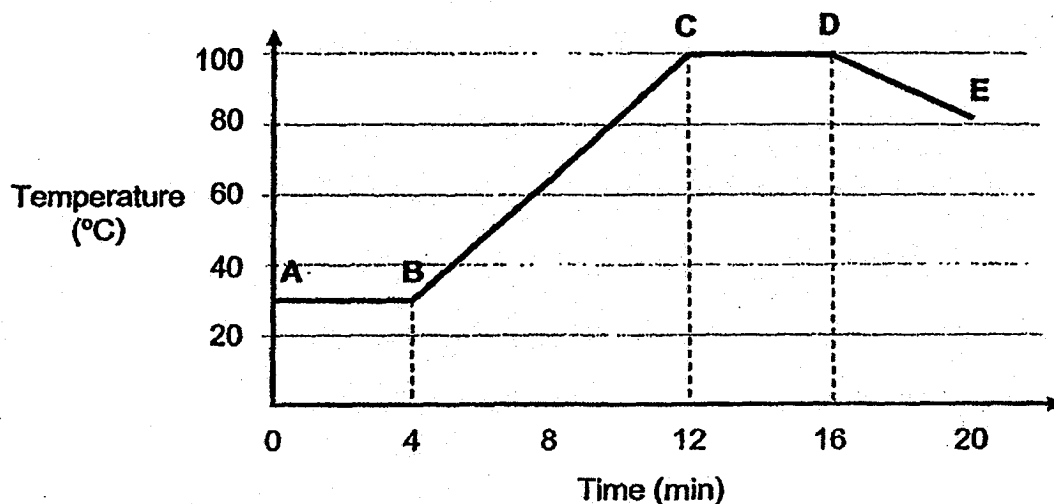
Which of the following correctly shows the states of matter that substances P and Q are in?

	Substance P	Substance Q
(1)	solid	liquid
(2)	liquid	solid
(3)	liquid	gas
(4)	gas	solid

16. Matthew heated a beaker of water until the water boiled as shown in the diagram below. He then turned off the flame and left the water to cool.

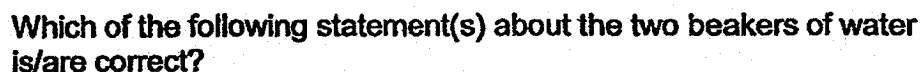


He recorded the temperature of the water and plotted a graph as shown below.



Based on the above experiment, which one of the following statements is correct?

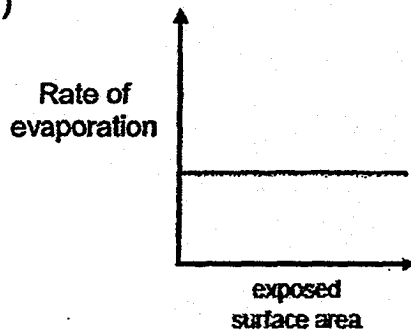
- (1) The water lost heat between DE.
- (2) Water changed state during BC only.
- (3) The water started boiling at 4 minutes.
- (4) The water was in the solid state at the start of the experiment.



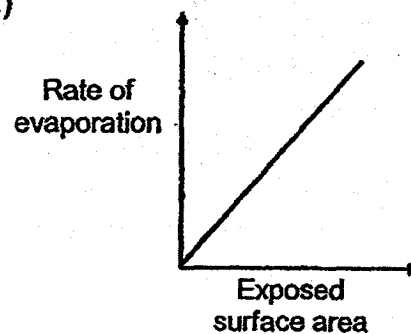
- A** Both beakers of water would boil at the same time.
- B** Both beakers of water would have the same temperature when they boil.
- C** The boiling water in Beaker X would have a greater amount of heat than the boiling water in Beaker Y.
- (1) A only
- (2) A and B only
- (3) B and C only
- (4) A, B and C

18. Which one of the following graphs correctly shows the effect of increased exposed surface area on the rate of evaporation?

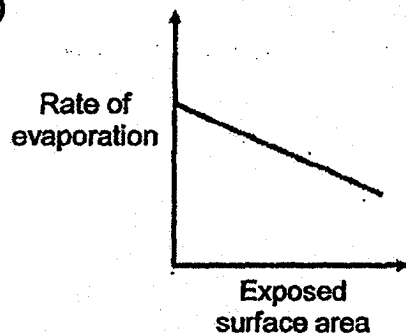
(1)



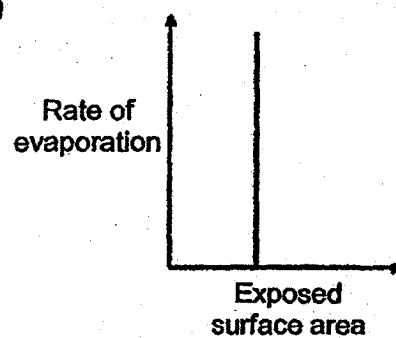
(2)



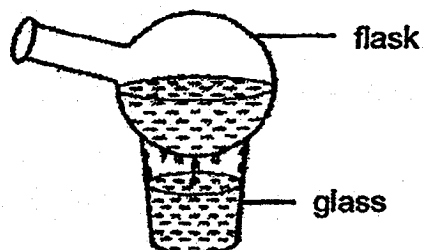
(3)



(4)



19. Rahim set up a model as shown in the diagram below to represent the water cycle.



In order for this model to work, which one of the following conditions must be met?

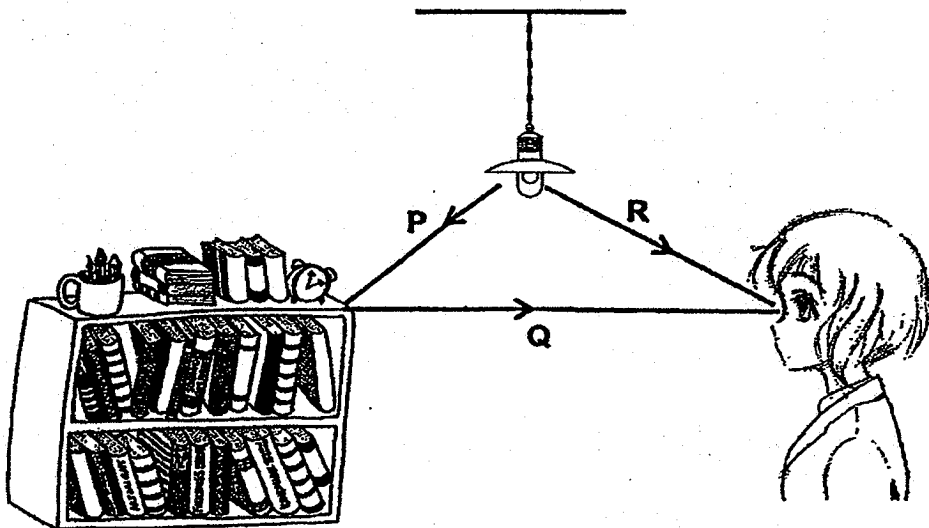
- (1) Keep the temperature of the water in the glass and flask at 100°C .
- (2) Keep the temperature of the air around the set-up lower than the temperature of the water in the glass.
- (3) Keep the temperature of the water in the flask higher than the temperature of the water in the glass.
- (4) Keep the temperature of the water in the glass higher than the temperature of the water in the flask.

20. In which of the following would water go through evaporation or condensation?

- A Hanging a wet towel out to dry.
- B Making ice cubes in the freezer.
- C Water droplets forming on a cold glass surface.

	Evaporation	Condensation
(1)	A	B
(2)	A	C
(3)	B	A
(4)	B	C

21. The diagram below shows three rays of light, P, Q and R.

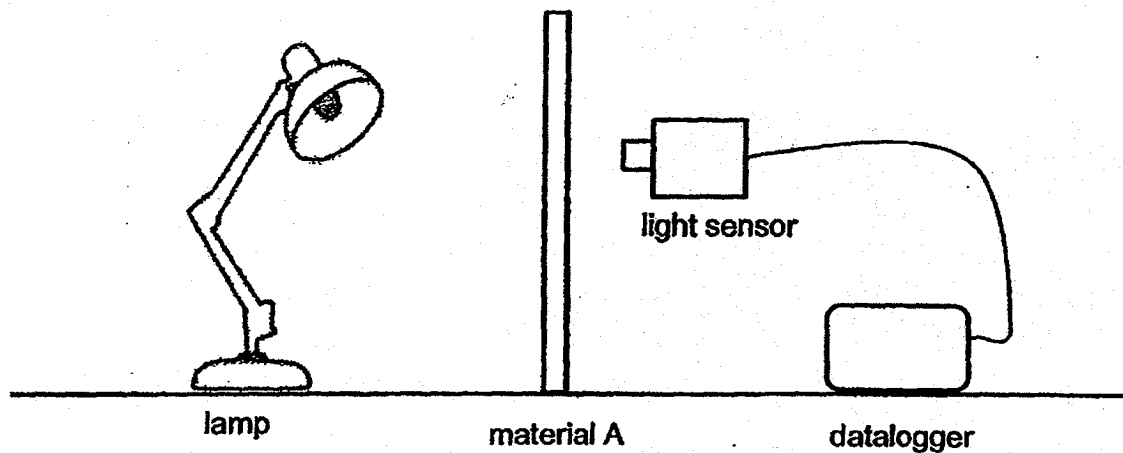


When Linda switched on the lamp in her room, she could see the lamp and the bookcase.

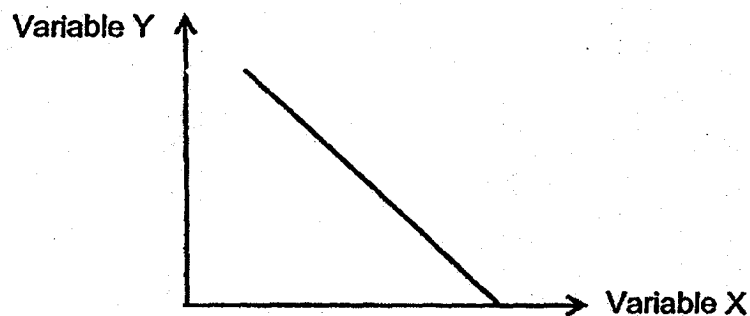
Which ray(s) of light best explain(s) why Linda was able to see the lamp and the bookcase?

	To see the lamp	To see the bookcase
(1)	R	P and Q
(2)	P	R and Q
(3)	P and R	Q
(4)	Q and R	P

22. The diagram below shows how the thickness of material A affects the amount of light passing through it.



The graph below shows the results obtained.

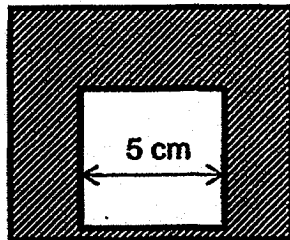


Based on the above experiment, what could Variables X and Y most likely be?

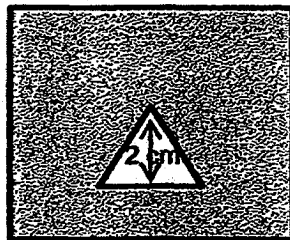
	Variable X	Variable Y
(1)	Thickness of material A	Amount of light passing through material A
(2)	Amount of light passing through material A	Thickness of material A
(3)	Type of material	Amount of light passing through material A
(4)	Amount of light passing through material A	Type of material

23. Titus cut out a square, a circle and a triangle from 3 sheets of material which are of the same size.

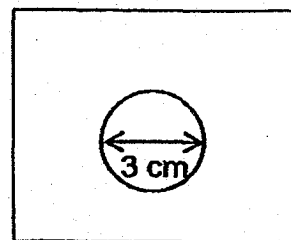
Front view



cardboard sheet



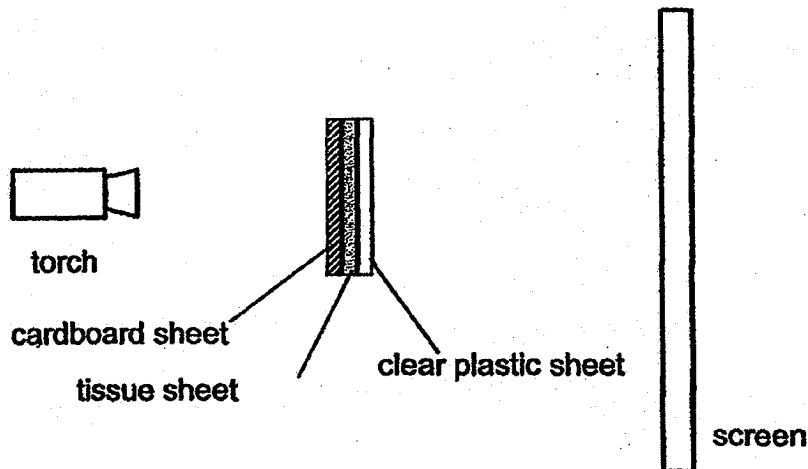
tissue sheet



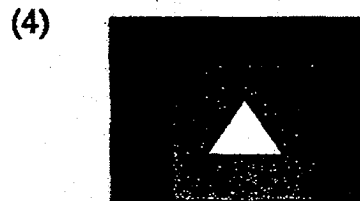
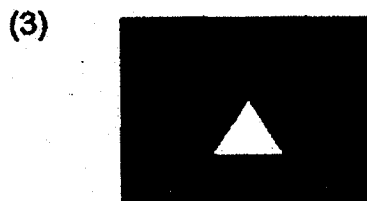
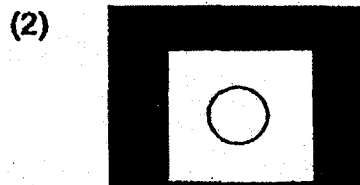
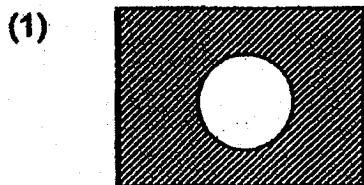
clear plastic sheet

Then he glued the 3 pieces of rectangular sheets with the cut-outs together and placed them, one in front of the other, between a torch and a screen in a dark room as shown below.

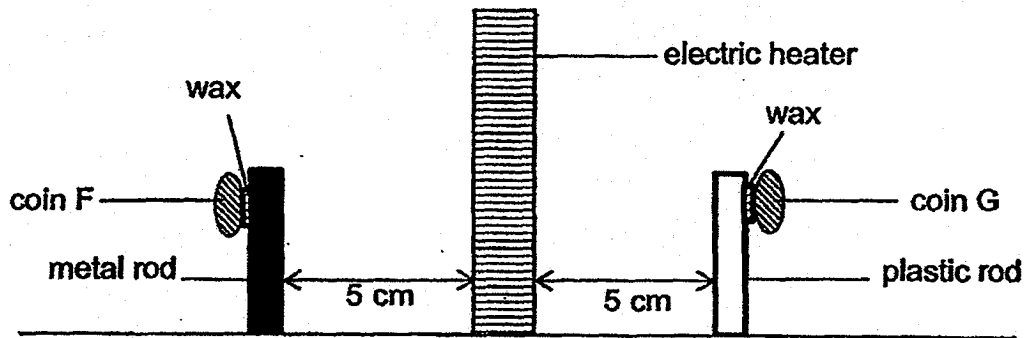
Side view



Which one of the following could be the shadow cast on the screen?



24. Two identical coins, F and G, were attached to the 2 similar rods of different materials by the same amount of wax as shown below.



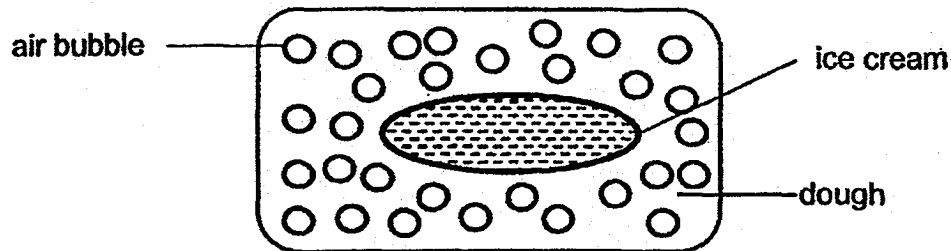
The electric heater was then switched on for 10 minutes.

Which of the following is the correct observation and its reason?

- A Coin F will drop first as metal is a better conductor of heat.
- B Coin F will drop first as metal can absorb more heat.
- C Coin G will drop first as plastic is a better conductor of heat.
- D Coin G will drop first as plastic surfaces can absorb more heat.

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

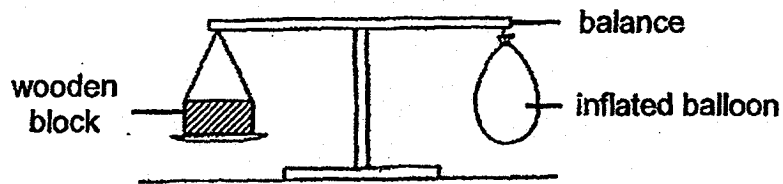
25. Fried ice cream is made by wrapping ice cream with a layer of bread dough. It is then fried in hot oil till the outer layer of dough is golden brown.



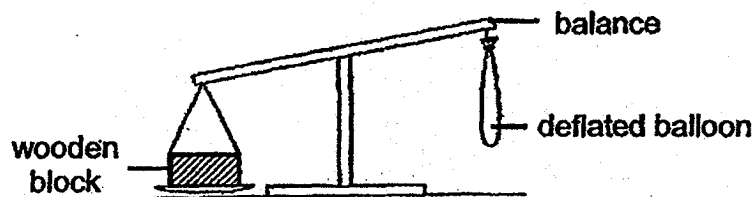
Which one of the following correctly explains why the ice cream does not melt during frying?

- (1) Air is a good conductor of heat and conducts the heat away from the ice cream quickly.
- (2) Air is a poor conductor of heat and slows down the heat gained by the ice cream.
- (3) The ice cream is a good conductor of heat and conducts the heat away from it quickly.
- (4) The ice cream is a poor conductor of heat and slows down the heat gained.

26. An inflated balloon was balanced by a wooden block on a balance as shown in the diagram below.



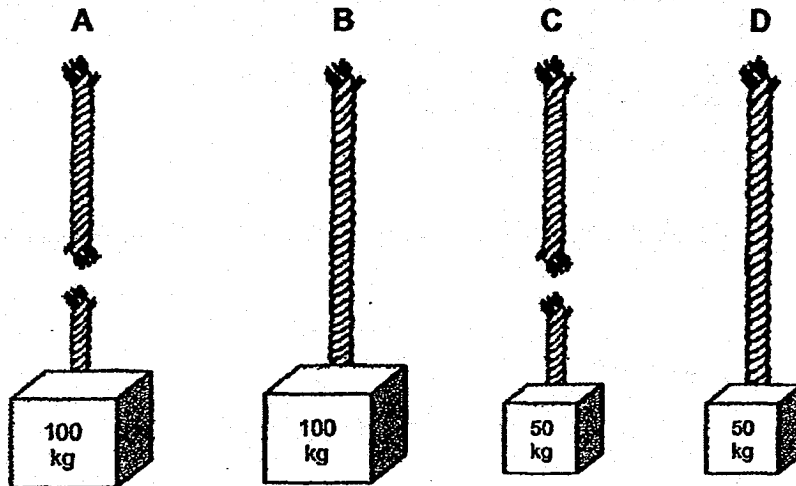
After some time, the air in the balloon escaped and the balloon became deflated.



Which of the following statements correctly describe the observations shown above?

- W Air has mass.
 - X Air occupies space.
 - Y The inflated balloon has the same mass as the wooden block.
 - Z The inflated balloon has the same volume as the wooden block.
-
- (1) W and Z only
 - (2) X and Y only
 - (3) W, X and Y only
 - (4) W, X and Z only

27. Four different materials, A, B, C and D, were used to make ropes. The ropes were of the same length and thickness. Each rope was attached to a load.

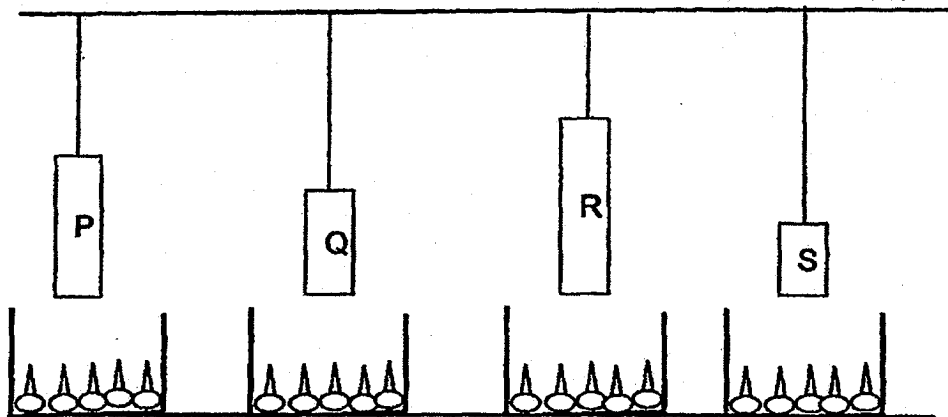


When each load was lifted, the ropes made of material A and material C snapped.

Based on the above observations only, which one of the following about materials A, B, C and D can be concluded?

- (1) Material A is stronger than Material C.
- (2) Material A is weaker than Material B.
- (3) Material B is as strong as Material D.
- (4) Material C is the weakest and Material B is the strongest.

28. Debbie suspended four magnets, P, Q, R and S from the same height above four trays of equal number of thumbtacks as shown in the diagram below.



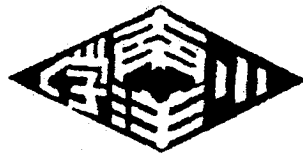
She observed the number of thumbtacks that each magnet was able to attract and recorded the results in the table below.

Magnet	P	Q	R	S
Number of thumbtacks attracted	5	3	7	9

Based on the above experiment, which of the following correctly explains the results in the table?

- A Magnetism can act from a distance.
- B Shorter magnets are weaker than longer magnets.
- C The strength of a magnet does not depend on its size.

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



NANYANG PRIMARY SCHOOL

PRIMARY 5 SCIENCE

**SEMESTRAL ASSESSMENT 1
2018**

BOOKLET B

Date: 8 May 2018

Duration: 1 h 45 min

Name : _____ ()

Class: Primary 5 ()

Marks Scored:

Booklet A:		56
Booklet B :		44
Total :		100

Any query on marks awarded should be raised by 17 May 2018. We seek your understanding in this matter as any delay in the confirmation of marks will lead to delays in the generation of results.

Parent's signature:

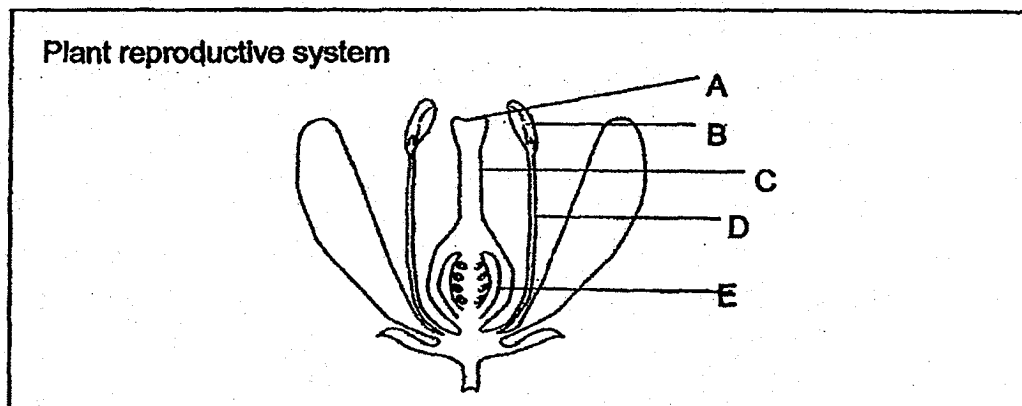
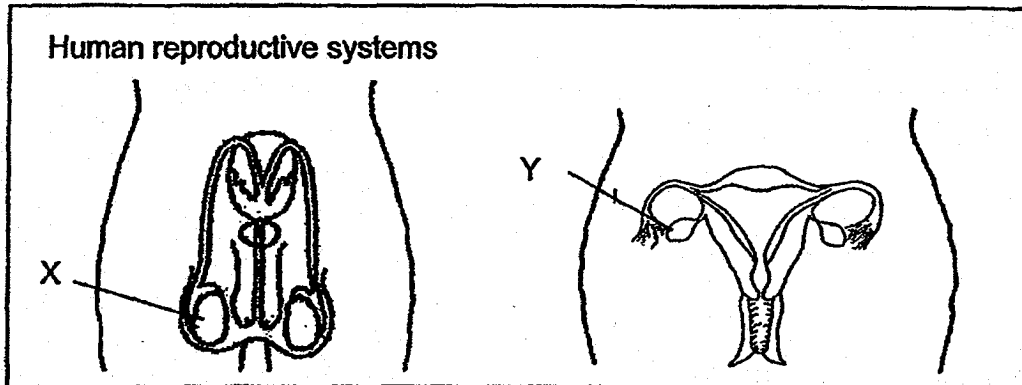
**DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.
FOLLOW ALL INSTRUCTIONS CAREFULLY.**

Booklet B consists of 19 printed pages including this cover page.

Section B (44 marks)

Write your answers to questions 29 to 40 in the spaces provided.

29. The diagrams below show the reproductive systems of human and plant.



The table below compares the reproductive parts of the human and the equivalent part in the flower.

(a) Fill in the reproductive parts (i) and (iii) in the table below with A, B, C, D or E.

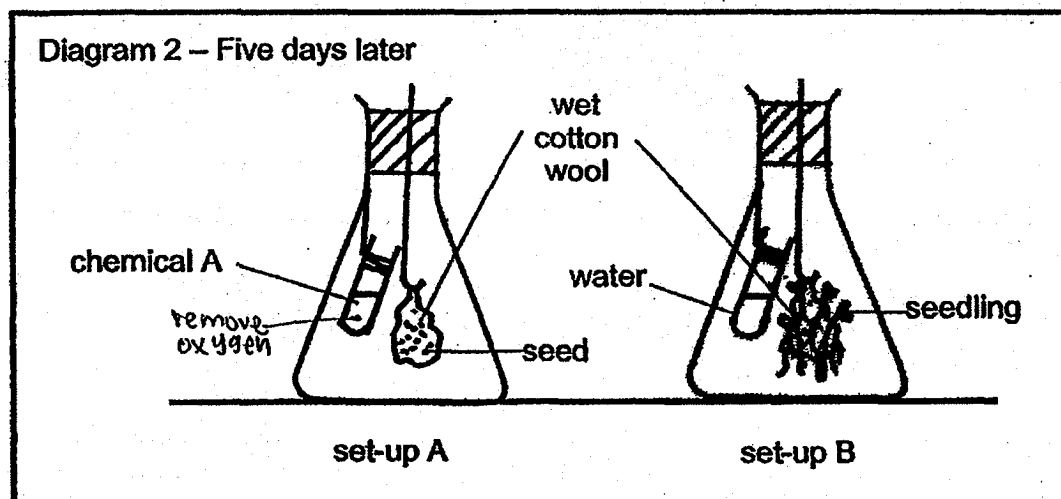
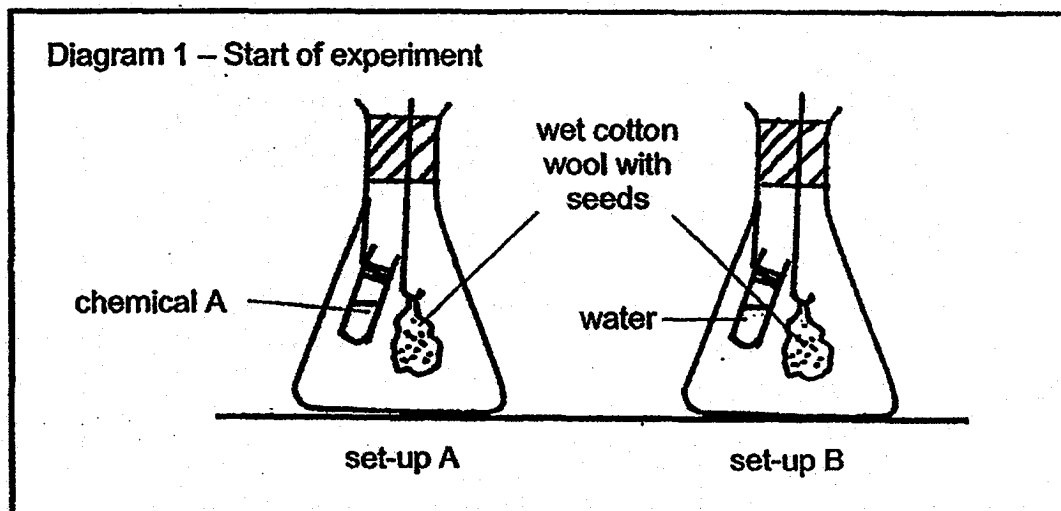
[2]

	Human	Plants
Male reproductive parts	X	(i)
Function	contains sperms	(ii)
Female reproductive parts	Y	(iii)
Function	contain eggs	(iv)

(b) Complete the table above by filling in the functions, (ii) and (iv).

[2]

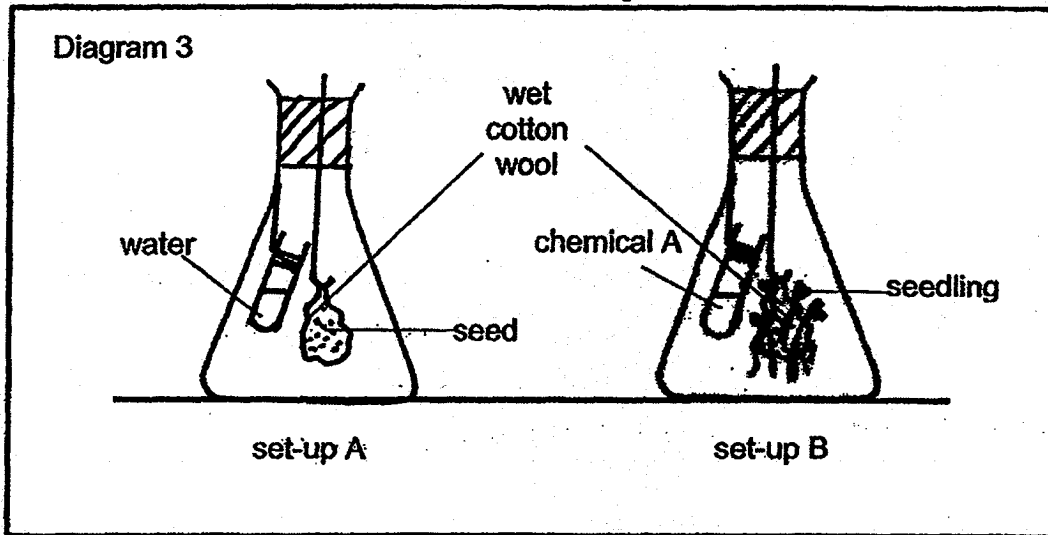
30. Wayne carried out an experiment with 2 similar set-ups, A and B, as shown in diagram 1. Set-up A contains 50ml of chemical A and set-up B contains 50ml of water. Chemical A removes oxygen from the surroundings. Both set-ups were placed in the classroom.



- (a) It was observed that the seeds in set-up A did not germinate. Give a reason for the observation. [1]

(Continue from Question 30)

Wayne then replaced chemical A in Set-up A with 50ml of water and the water in set-up B with chemical A as shown in diagram 3 below.



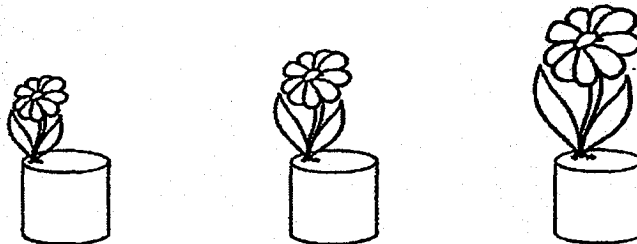
He left the above set-ups in the classroom for another 5 days.

- (b) What will he most likely observe in each of the set-ups in diagram 3 after 5 days? [1]

Set-up A: _____

Set-up B: _____

31. Niki wanted to investigate if the size of flowers affects the number of bees that landed on them. She made flowers of 3 different sizes using the same type of yellow paper as shown in diagram below. In the centre of each flower, she attached a ball of cotton wool containing nectar from the same flower.



She placed the 3 flowers in the garden and counted the number of bees that landed on each flower over 4 hours.

- (a) Is Niki's experiment a fair test? Explain your answer. [1]

Niki recorded her observations in the table below.

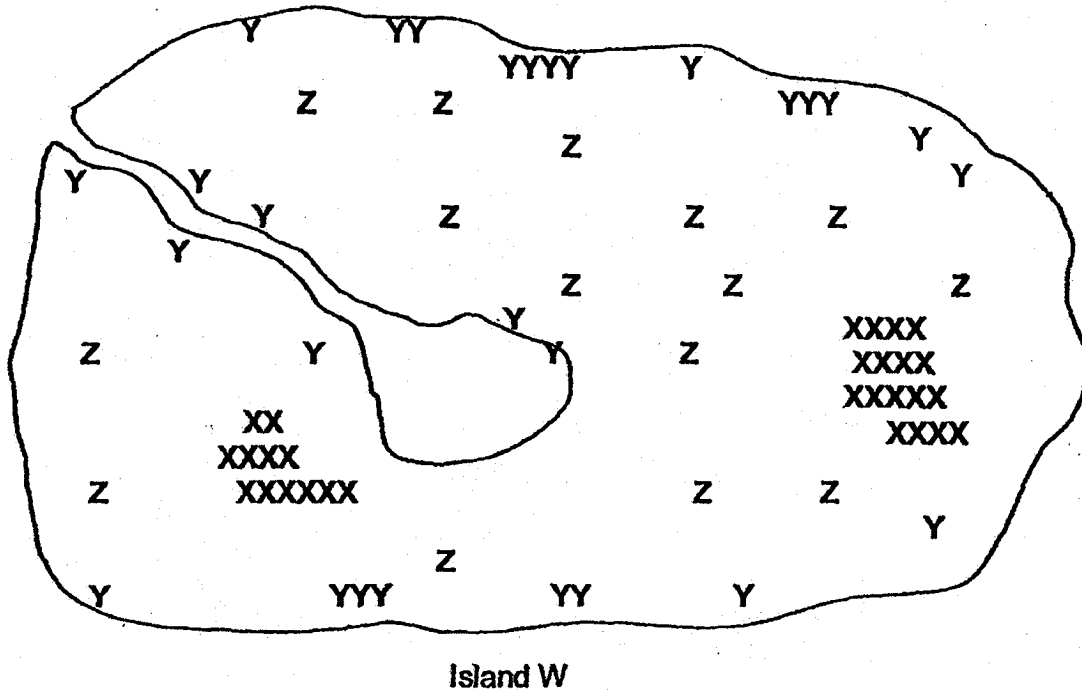


Length L (cm)	Number of bees that landed on the flowers
5	9
10	17
15	46

- (b) Based on the results recorded in the table above, what is the relationship between the size of the flowers and the number of bees that landed on them? [1]

- (c) Give a reason why her results were not reliable. [1]

32. On island W, there were 3 types of plants, X, Y and Z. The locations of the 3 types of plants were indicated in the diagram below.

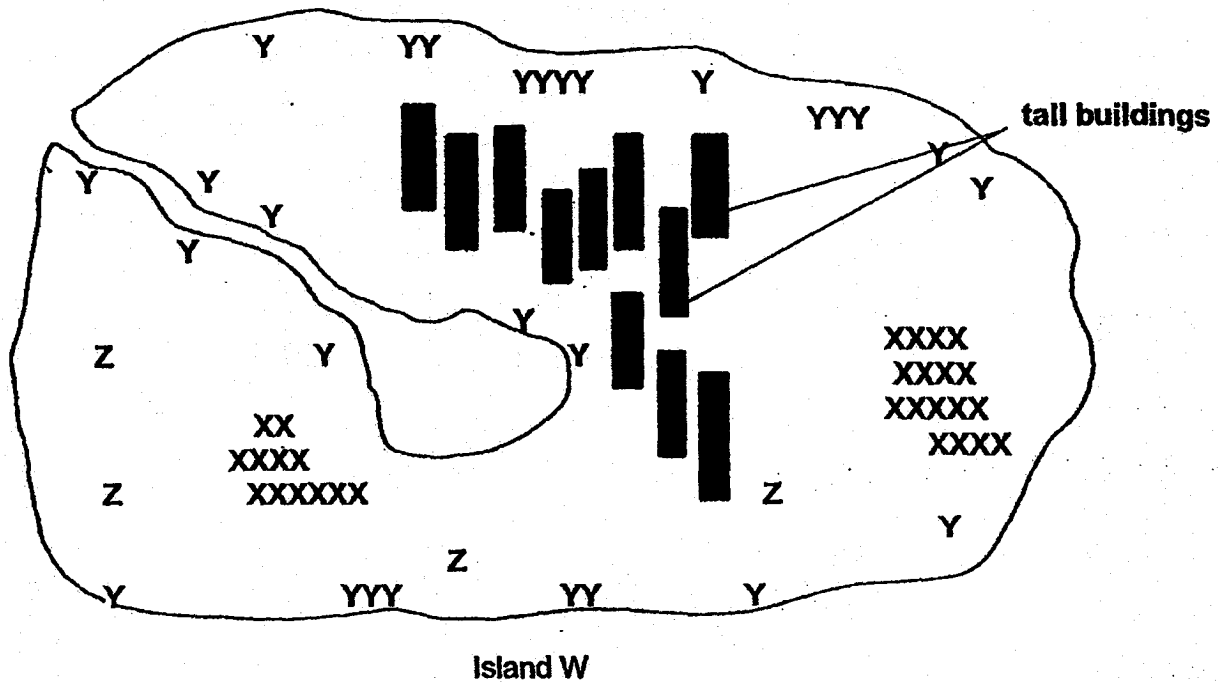


- (a) Based on the locations of the 3 types of plants on island W, state a likely physical characteristic of the fruit of each plant which helps them in their dispersal of fruits. [3]

Plant	Physical characteristics of the fruit
X	
Y	
Z	

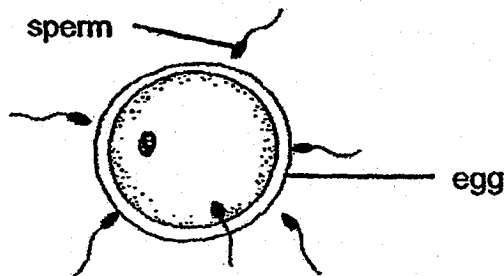
(Continue from Question 32)

Construction works were carried out on island W and many tall buildings were built. The diagram below showed how the plants, X, Y and Z were affected.



- (b) Based on the method of dispersal, which plant is most affected by the construction work on the island? Explain your answer. [1]

The diagram below shows two types cells in the human reproductive system.



- (a) Name the organs in which the sperms and the egg are produced. [2]

sperms : _____

egg : _____

- (b) (i) State the process shown in the diagram above. [1]

- (ii) Describe what happens during the process in b(i). [1]

34. Linda conducted an experiment to find out how the temperature of a liquid affects the time taken for it to evaporate. She poured 100ml of the liquid into four identical beakers, A, B, C and D. She then heated the liquid in each beaker to different temperatures as shown in the table below. She placed the beakers in a room and recorded the time taken for the liquid in each beaker to evaporate completely in the table below.

Beaker	Temperature of liquid at the start of experiment (°C)	Time taken (h)
A	30	8
B	50	5
C	70	3
D	90	2

- (a) Based on the results above, what can Linda conclude from her experiment? [1]

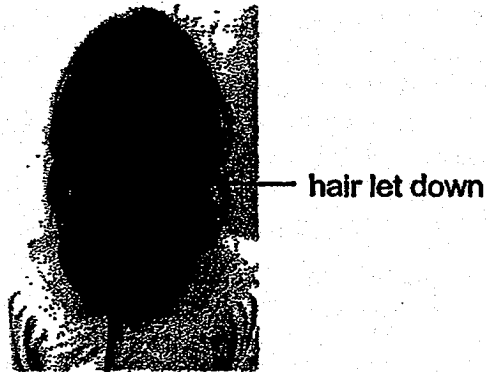
- (b) Explain clearly why it is not a fair test if Linda had used 4 beakers of different sizes for her experiment. [2]

(Continue from Question 34)

One day, after a shower, Linda tied her wet hair into a bun as shown below.



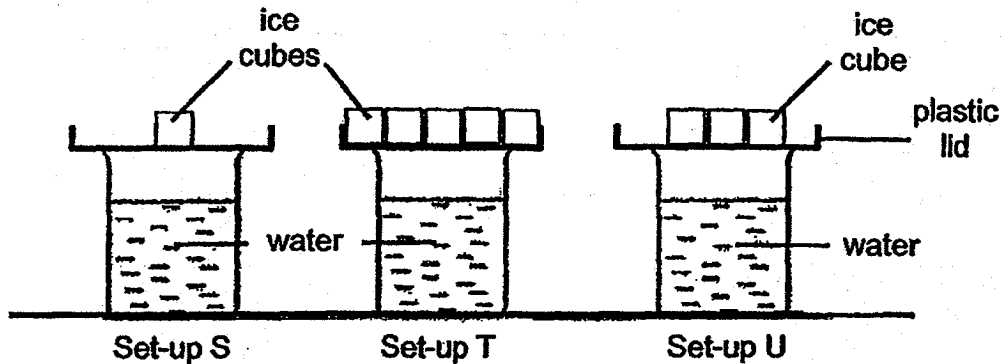
Linda's mother suggested that she let her hair down so that it would dry faster.



- (c) Explain why her mother's suggestion would help her hair dry faster. [1]

- (d) Other than using a towel, suggest another method which Linda could use to dry her hair faster. [1]

35. Irfan poured 400ml of water at 50°C into a beaker in each of the 3 set-ups, S, T and U, as shown in the diagram below. He covered each beaker with a plastic lid and placed a different number of ice cubes on the plastic lids.



He then observed the amount of water droplets formed on the underside of the plastic lid after 1 minute.

- (a) Which set-up would have the most number of water droplets?
Explain your answer.

[2]

Irfan fried two pineapple pies and placed them into boxes A and B as shown in the diagrams below.



Box A



Box B

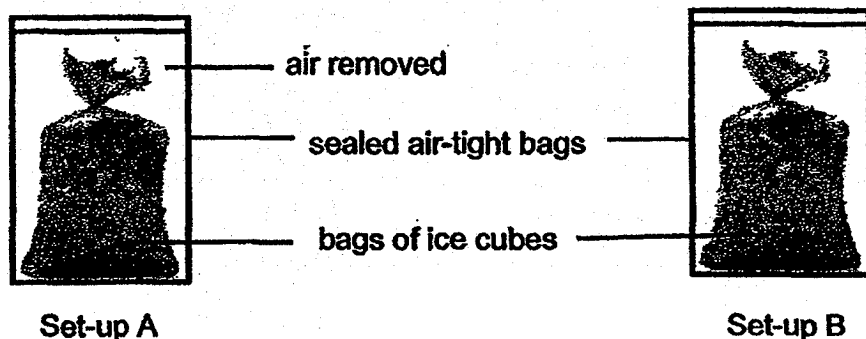
After some time, Irfan observed that the pineapple pie in box A became slightly wet compared to that in box B.

- (b) Explain clearly how the holes in box B helped to keep the pineapple pie dry and crispy.

[2]

36. Zhiming put the same number of ice cubes into two plastic bags, A and B. The plastic bags were then placed into another air-tight bag as shown in the diagram below.

The air in the air-tight bag in set-up A was removed before sealing. He then left both bags in a room of 28°C.



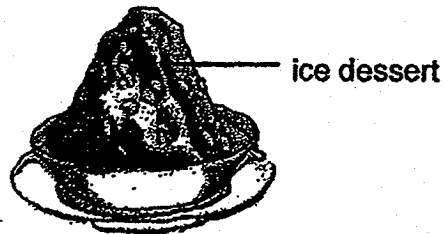
After 30 minutes, Zhiming observed a mixture of water and ice cubes in the two plastic bags.

- (a) State the process that had taken in the two plastic bags. [1]

- (b) In which set-up, A or B, would Zhiming most likely observe more ice cubes left? Give a reason for your answer. [1]

(Continue Question 36)

One day, Zhiming sat outside a restaurant and was having his ice dessert.

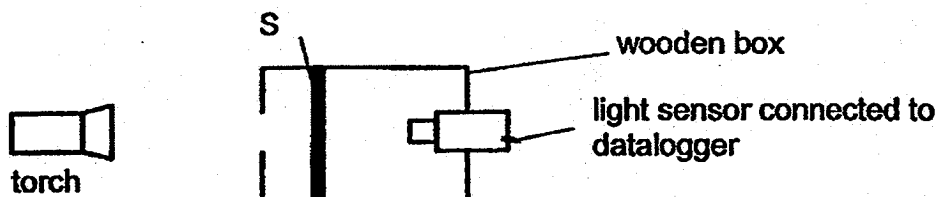


At the same time, he observed another customer seated inside the restaurant having the same ice dessert as shown in the diagram below.



- (c) Zhiming observed that his ice dessert turned to liquid faster than the other customer's ice dessert. Give a reason for this observation. [1]

37. May used 3 different types of material, S, T and U, of the same thickness for her experiment. She positioned material S in a wooden box as shown in the set-up below and recorded the amount of light detected by the light sensor.



She repeated the experiment with different pairs of materials and recorded the amount of light detected by the light sensor in the table below.

Set-up	Materials placed in the box	Amount of light detected (units)
1	S	250
2	T	150
3	U	50

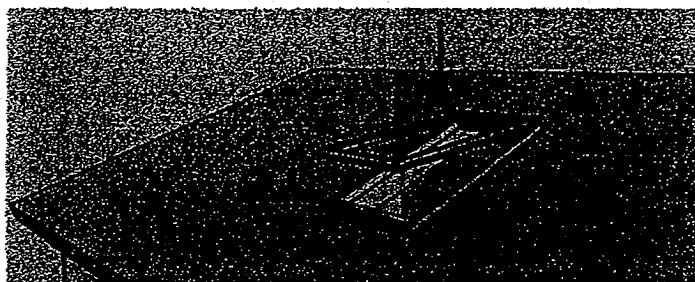
- (a) Based on the experiment above, state one variable that May had to keep constant for it to be a fair test. [1]

- (b) Using the same set-up and materials, suggest one way to increase the amount of light detected by the light sensor. [1]

(Continue from Question 37)

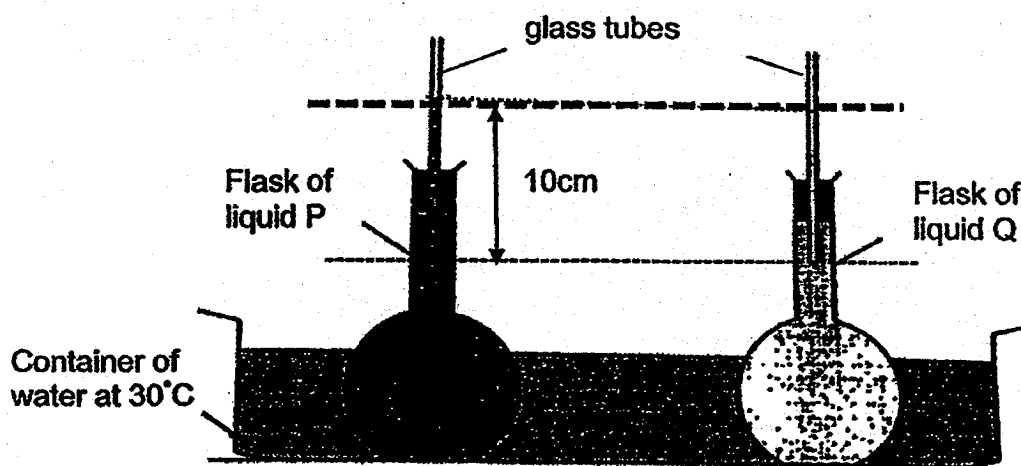
May wanted to use one of the materials from her experiment to make the rooftop windows of her house so that she would not need to switch on the lights during the day.

rooftop window



- (c) Which material, S, T or U, is the most suitable for making the rooftop window? Give a reason for your answer. [1]

38. Winnie set up the experiment as shown below.



Winnie made sure that when both flasks were immersed in the container of water at 30 °C, the levels of liquids P and Q in the glass tube were the same. Liquid P is a better conductor of heat than liquid Q.

Winnie observed the levels of liquid in both flasks when she added a bucket of ice cubes into the container of water and recorded her results in the table below.

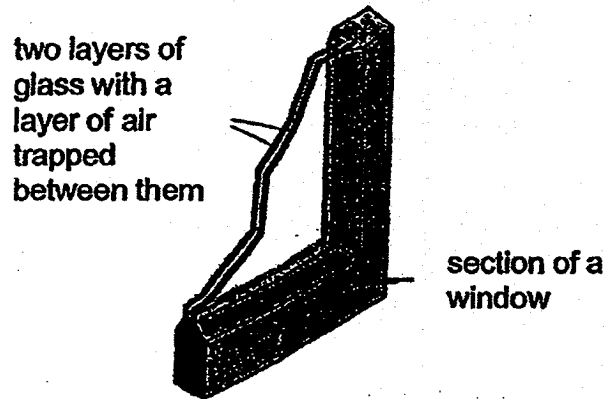
Time (min)	Level of liquid P (cm)	Level of liquid Q (cm)
0	10	10
2	8	9
4	5	7
6	2	5

(a) Based on the table above, explain the results of her experiment. [1]

(b) Explain your answer in (a). [2]

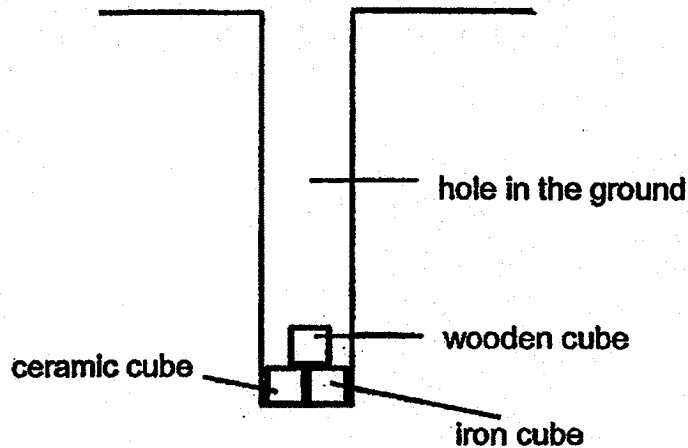
(continue from Question 38)

Winnie discovered that houses in cold countries have windows that have two layers of glass, trapping a layer of air between them, as shown in the diagram below.



- (c) Explain how windows with two layers of glass helps to keep the temperature inside the room higher than the temperature outside the house for a longer period of time. [1]

39. Farah wanted to take back the following objects which she had dropped into a deep and narrow hole in the ground but her arms could not reach them.

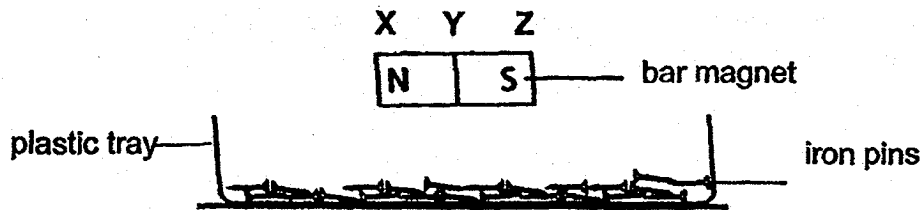


Farah had a ball of cotton string, a pail of water and a bar magnet.

- (a) With the above items, which of the object(s) would she be able to take out from the hole in the ground? [1]

- (b) Describe and explain how she could take out the object(s) you had stated in (a). [2]

40. Cheryl carried out an experiment as shown below.



She filled a plastic tray with iron pins and lowered a bar magnet into it. Then she lifted the magnet and recorded the number of iron pins attracted to the different parts of the bar magnet. The table below shows the results of the experiment.

Parts of the bar magnet	No of iron pins attracted
Part X	8
Part Y	2
Part Z	9

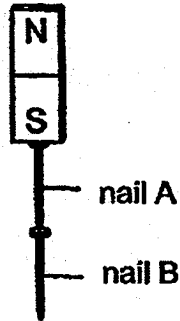
- (a) What was the aim of her experiment? [1]

- (b) Based on the above results, what can she conclude about the strength of the bar magnet? [1]

- (c) What should Cheryl do in order to ensure reliable results? [1]

(continue from Question 40)

Cheryl used the same bar magnet to stroke nail A 50 times. Then, it was observed that it could pick up nail B.



- (d) Give a reason why nail A could attract nail B. [1]

Cheryl then used the same bar magnet to stroke nail B. When she brought nail A close to nail B again, she noticed that nail B moved away.

- (e) Give a reason for her observations. [1]

SCHOOL : NANYANG PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2018 SA1

SECTION A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
4	1	2	2	1	3	2	4	2	2
Q 11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
3	2	3	1	2	1	3	2	4	2
Q 21	Q22	Q23	Q24	Q25	Q26	Q27	Q28		
1	1	4	1	2	3	2	3		

SECTION B

Q29)	a) (i) B a) (ii) contain pollen grains a) (iii) E a) (iv) contain ovules
Q30)	a) Chemical A removes oxygen and it is in set-up A. Therefore, the seeds cannot germinate without oxygen. b) Setup A: seedlings grown from seeds as it has enough water to germinate. Setup B: Seedlings die due to the lack of oxygen.
Q31)	a) Yes. All the flowers had a ball of cotton wool containing nectar in the centre, the only variable changed was the size of the flower. b) The longer the length of L, the number of bees that landed on the flowers are more. c) Niki cannot assume that what she recorded in her observations were correct as she did not repeat the experiment for at least 3 times, so the results were not reliable.

Q32)	a) X: pod-like structure Y: waterproof covering Z: wing-like structure b) Plant Z. The tall buildings prevented the wind to disperse the seed of plant Z to other parts of the island.
Q33)	a) Sperms → Testes, egg → ovary b) i. Fertilisation ii. Only one sperm will get to fuse with the egg
Q34)	a) The higher the temperature of liquid, the faster the evaporation takes place. b) It is not a fair test because some of the beakers might have a larger exposed surface area so they will evaporate faster. Hence, more than 1 variable has changed. c) When Linda lets her hair down, there is more exposed surface area for the water in her hair to evaporate and dry faster. d) She could use a hair dryer for the water soaked in her to evaporate faster.
Q35)	a) Set-up T. It has the most number of ice cubes on the plastic lid, creating the coolest surface on the underside of the lid for most water vapour to lose heat and condense on. b) The holes in box B allow the hot water vapour in the box to escape. Thus preventing water vapour from losing heat to the cooler surface of the box and preventing condensation from forming water droplet.
Q36)	a) Melting b) There would be more ice cubes left in Set-up B as air is a poor conductor of heat and the layer of air around the ice cubes slows down heat gain by the ice cube from the surrounding. Hence, the cubes melted more slowly. c) The surrounding temperature outside is higher than the temperature indoors. The ice dessert gained more heat from the higher temperature outside and melted faster.
Q37)	a) Torch of the same light intensity for each set-up. b) Move the torch closer to the opening of the torch. c) S. It detected the most amount of light. Therefore, sunlight is able to pass through material S and May would not need to switch on the lights.

Q38)	a) Both the levels of the liquids in P and Q decreased but the level of P was lesser than that in Q. b) When ice is added to the container of water, the water in the container will lose heat to the ice cube causing the temperature to decrease. Liquid P is a better conductor of heat than Liquid Q, it will lose heat faster to the cooler water than liquid Q and contracts more than liquid Q. c) The air that is trapped is a poorer conductor of heat and will reduce the amount of heat loss from room to the colder environment.
Q39)	a) Iron and wooden cube. b) Wood has the ability to float on water. Thus, Farah can pour water into the hole and the wooden cube would float on the water to the opening of the hole. Iron is magnetic material. Thus, Farah can use the cotton string to tie the bar magnet and lower it onto the hole to attract the iron cube out.
Q40)	a) To find out which part of the bar magnet has stronger magnetism. b) The two poles of the bar magnet has the strongest magnetism. c) Cheryl should conduct the experiment at least 3 times. d) Nail A has become a temporary magnet and is able to attract nail B which is made of a magnetic material. e) Nail B has become a temporary magnet when she brought Nail A close to Nail B, the two like poles are facing each other and one repelling each other.

