

**Test:** Primary 4 Science (Term 4) - Raffles (2020)

**Points:** 72 points

**Name:** \_\_\_\_\_

**Score:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

**Question 1 of 53**

Primary 4 Science (Term 4)

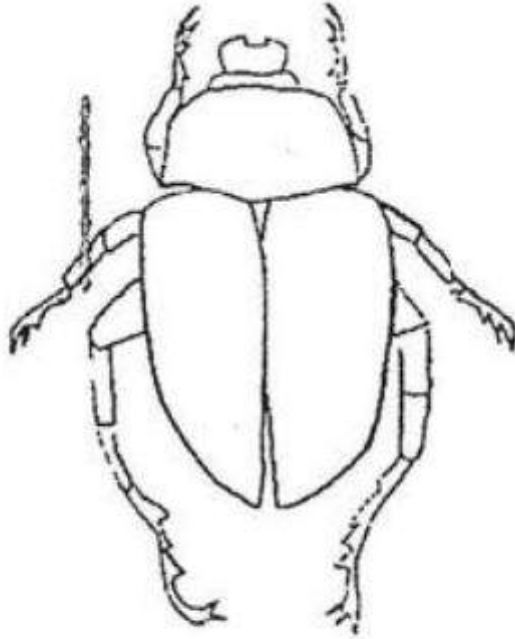
2 pts

For each question, four options are given. One of them is the correct answer. (25 x 2 marks)

Which animal has a 3-stage life cycle?

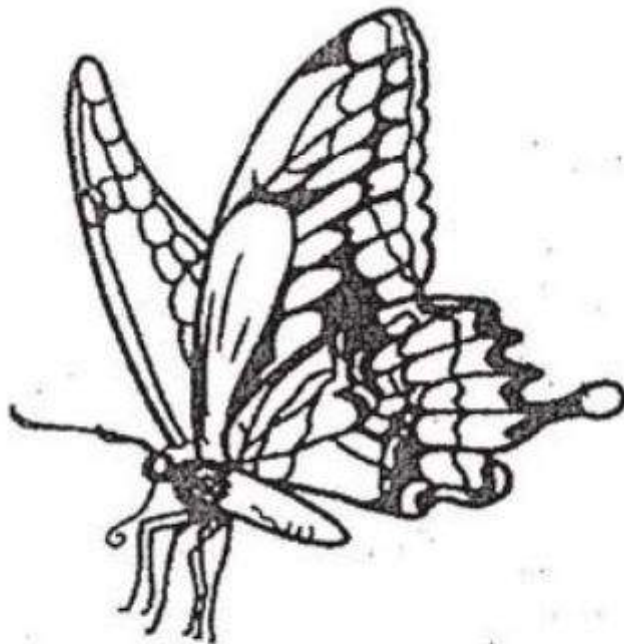
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A)

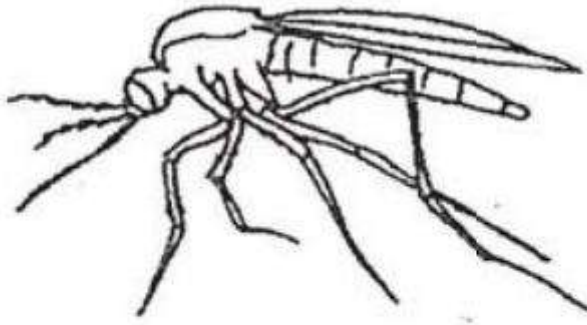


beetle

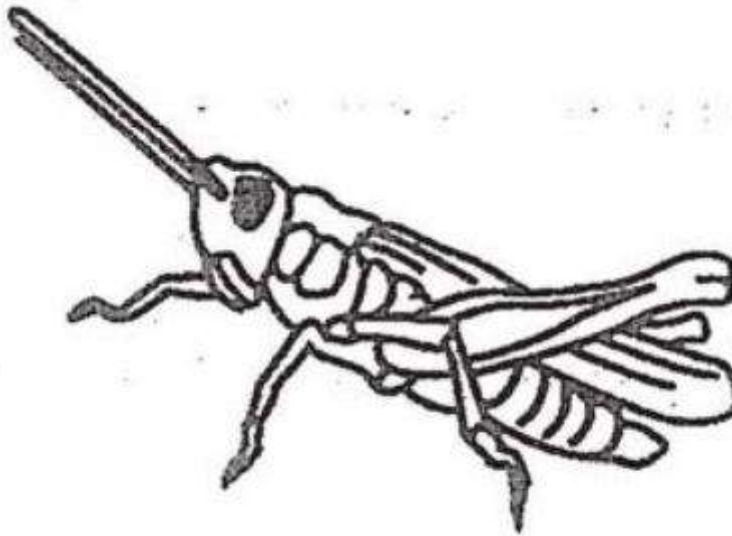
B)



butterfly

C)

mosquito

 D)

grasshopper

**Question 2 of 53**

Primary 4 Science (Term 4)

2 pts

Which animal has a pupa as a stage in its life cycle?

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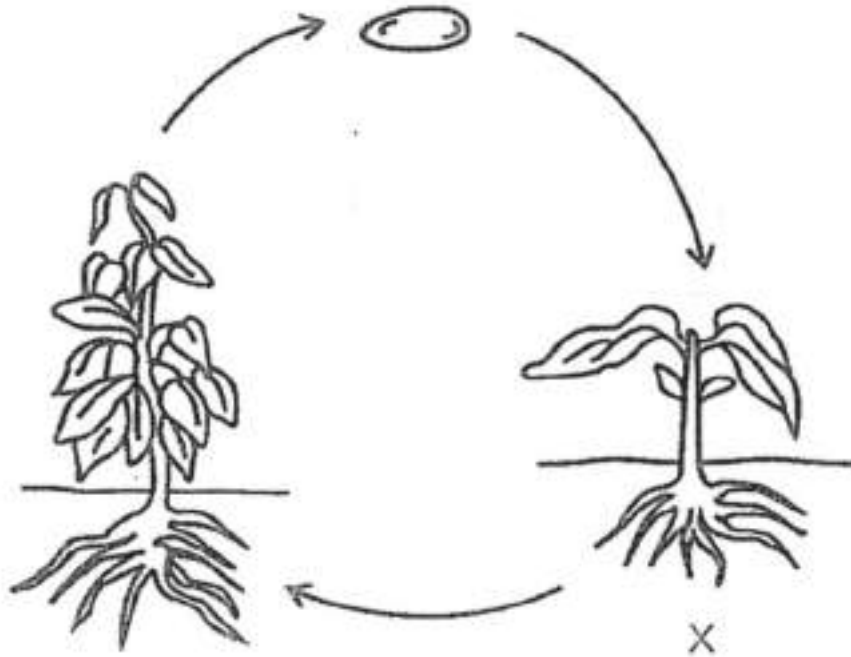
- A) frog
- B) chicken
- C) mosquito
- D) cockroach

**Question 3 of 53**

Primary 4 Science (Term 4)

2 pts

The diagram shows the life cycle of a plant.



What is the stage marked X?

- A) egg
- B) seed
- C) adult plant
- D) young plant

**Question 4 of 53**

Primary 4 Science (Term 4)

2 pts

In which part of the digestive system is water absorbed?

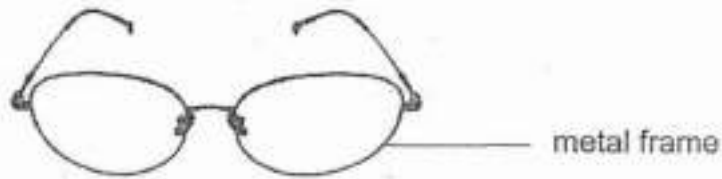
- A) mouth
- B) stomach
- C) small intestine
- D) large intestine

**Question 5 of 53**

Primary 4 Science (Term 4)

2 pts

The diagram below shows a pair of spectacles.



The frame of the spectacles is made of metal because metal \_\_\_\_\_.

- A) can reflect light
- B) can sink in water
- C) does not break easily
- D) does not allow light to pass through

**Question 6 of 53**

Primary 4 Science (Term 4)

2 pts

Matter is anything that has mass and occupies space.  
Which one of the following is NOT matter?

- A) air
- B) flour
- C) shadow
- D) orange juice

**Question 7 of 53**

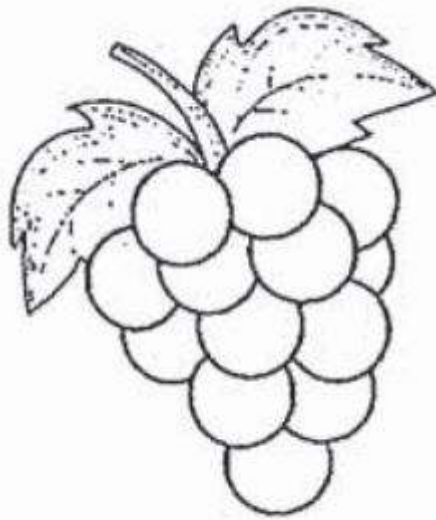
Primary 4 Science (Term 4)

2 pts

Which one of the following is a source of light?

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A)



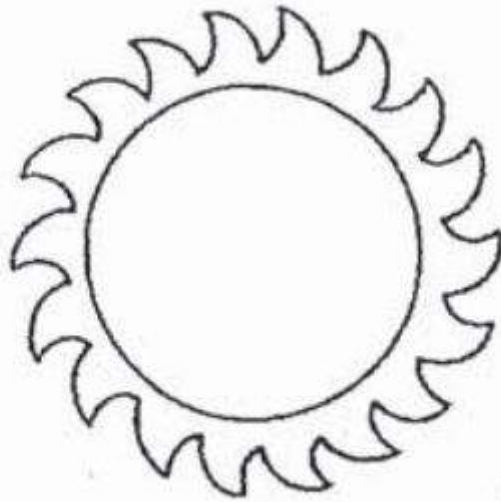
grapes

B)



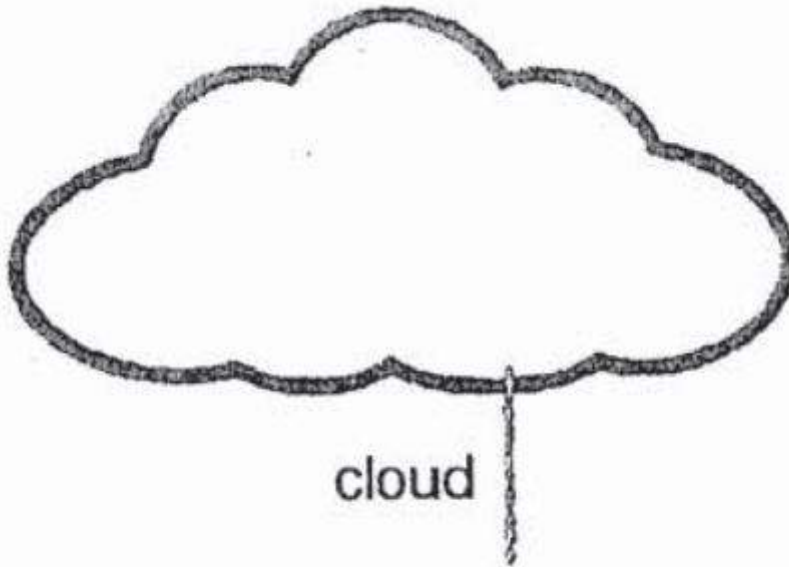
moon

C)



sun

D)



cloud

**Question 8 of 53**

Primary 4 Science (Term 4)

2 pts

Which one of the following is NOT a source of heat?

---

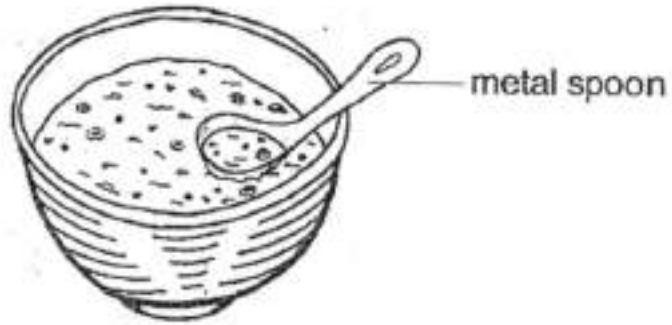
- A) The sun
- B) A lighted bulb
- C) A lighted candle
- D) A woolen jacket

**Question 9 of 53**

Primary 4 Science (Term 4)

2 pts

Lucy places a metal spoon in a bowl of hot soup as shown below.



a bowl of hot soup

After a while, the spoon becomes hot.  
Which one of the following explains this?

- 
- A) The spoon loses heat to the bowl.
  - B) The spoon loses heat to the soup.
  - C) The spoon gains heat from the soup.
  - D) The soup gains heat from the spoon.



**Question 10 of 53**

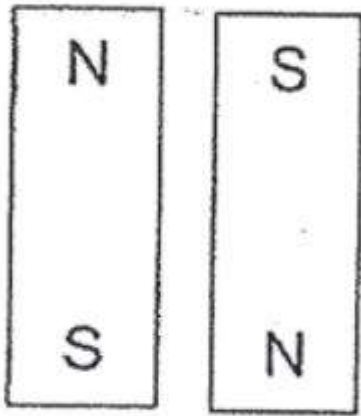
Primary 4 Science (Term 4)

2 pts

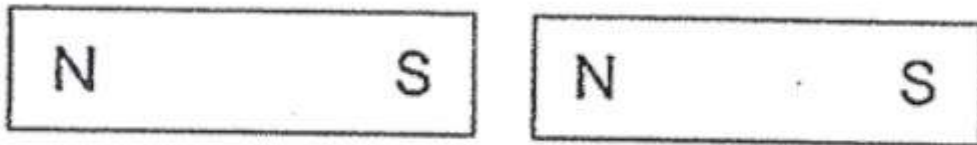
In which one of the following would the two magnets push each other away?

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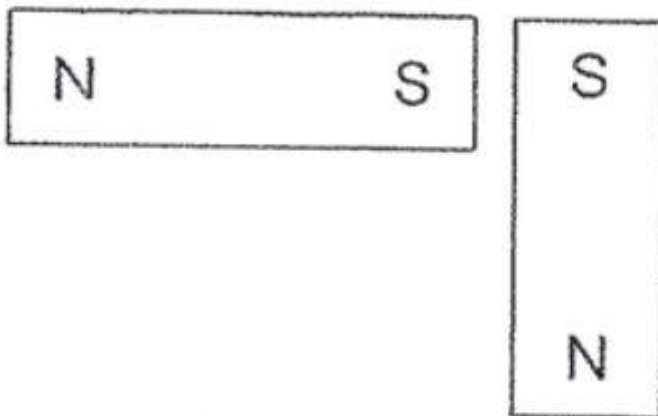
A)



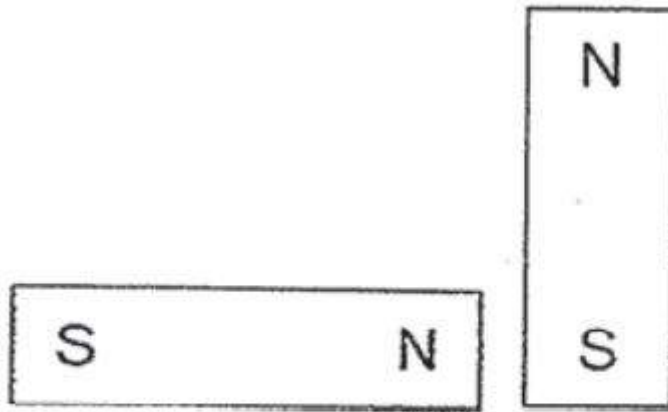
B)



C)



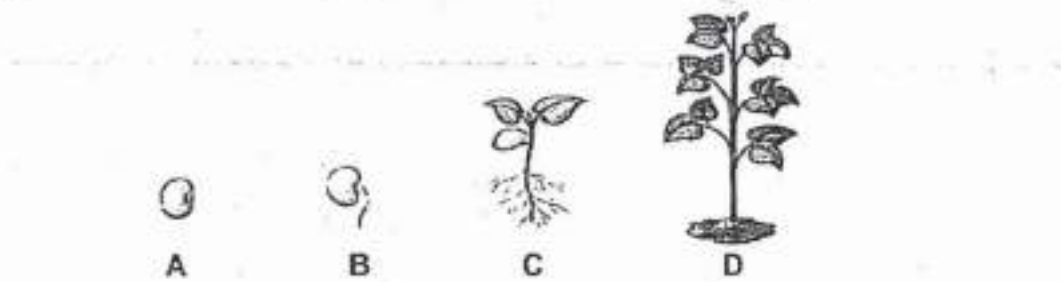
D)

**Question 11 of 53**

Primary 4 Science (Term 4)

2 pts

The diagram below shows how a plant grows from a seed over a period of time.



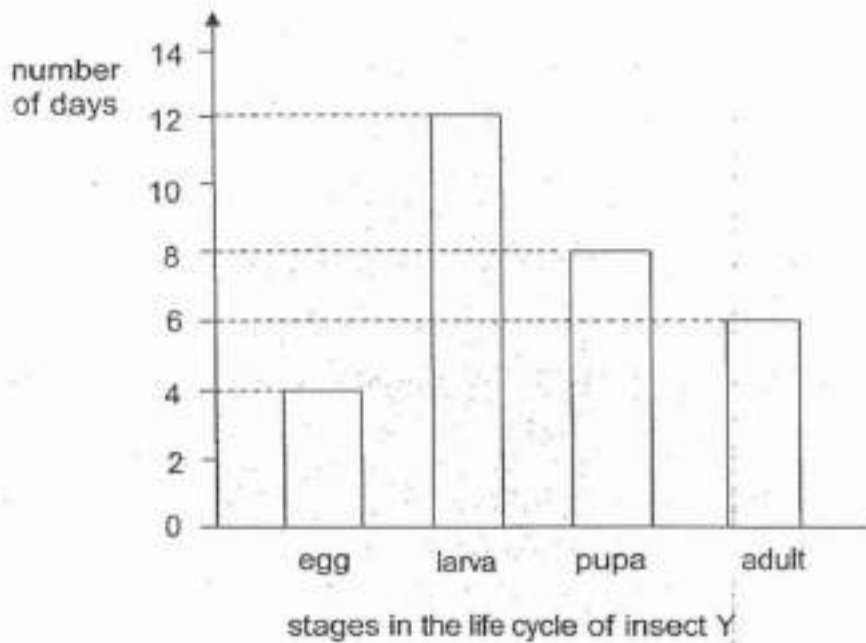
At which stage(s) of its growth, A, B, C or D, is/are the plant **NOT** able to make its own food?

- A) B only
- B) A and B only
- C) C and D only
- D) A, B and C only

## Question 12 of 53

Primary 4 Science (Term 4) 2 pts

The graph below shows the number of days in each stage of the life cycle of insect Y.



Based on the graph above, which of these statements about insect Y is **NOT** correct?

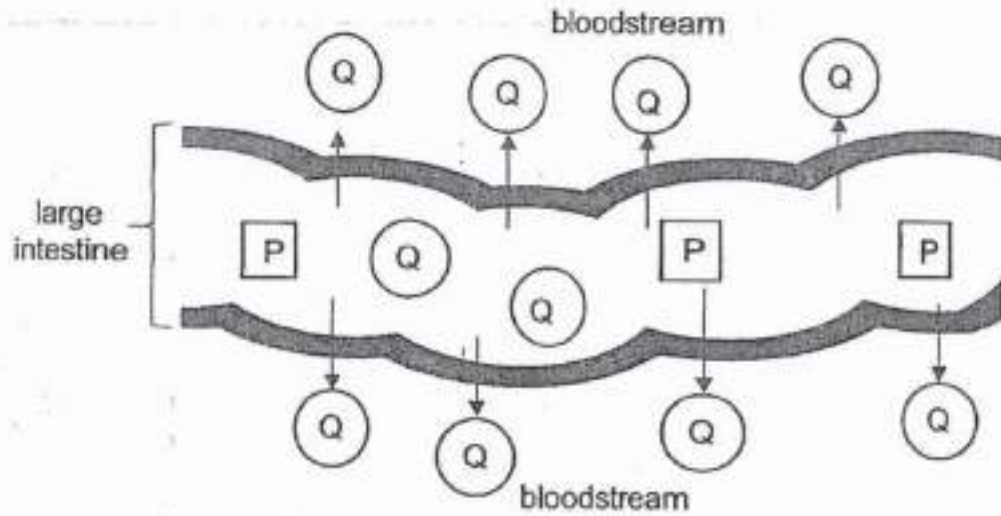
- A) Insect Y has a 4-stage life cycle.
- B) Insect Y hatches four days after the egg is laid.
- C) Insect Y takes thirty days to become an adult.
- D) Insect Y spends longer time in larva stage compared to other stages.

## Question 13 of 53

Primary 4 Science (Term 4)

2 pts

The diagram below shows part of the large intestine in the digestive system. Substances P and Q are found in the large intestine.



Which one of the following identifies substances P and Q correctly?

- A) 

P	Q
water	digested food
- B) 

P	Q
digested food	water
- C) 

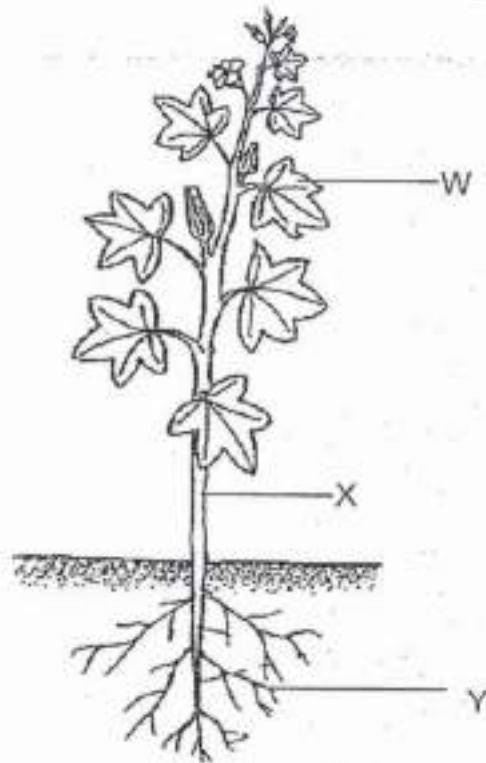
P	Q
undigested food	water
- D) 

P	Q
undigested food	digested food

## Question 14 of 53

Primary 4 Science (Term 4) 2 pts

The diagram below shows a plant.



Which one of the following identifies the function of the parts W, X and Y correctly?

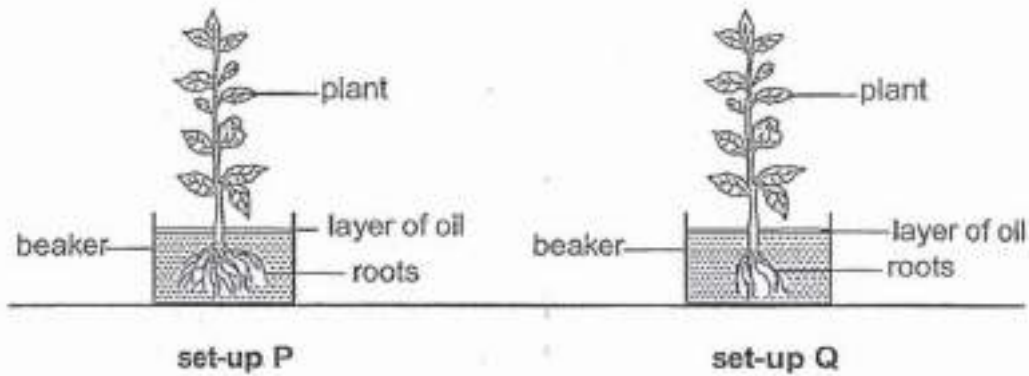
- A)
- | Function of W            | Function of X                                       | Function of Y                        |
|--------------------------|---|--------------------------------------|
| makes food for the plant | transports water and food to all parts of the plant | holds the plant firmly to the ground |
- B)
- | Function of W            | Function of X                        | Function of Y                                       |
|--------------------------|--------------------------------------|---|
| makes food for the plant | holds the plant firmly to the ground | transports water and food to all parts of the plant |
- C)
- | Function of W                                       | Function of X            | Function of Y                        |
|---|--------------------------|--------------------------------------|
| transports water and food to all parts of the plant | makes food for the plant | holds the plant firmly to the ground |
- D)
- | Function of W                                       | Function of X                        | Function of Y            |
|---|--------------------------------------|--------------------------|
| transports water and food to all parts of the plant | holds the plant firmly to the ground | makes food for the plant |

## Question 15 of 53

Primary 4 Science (Term 4)

2 pts

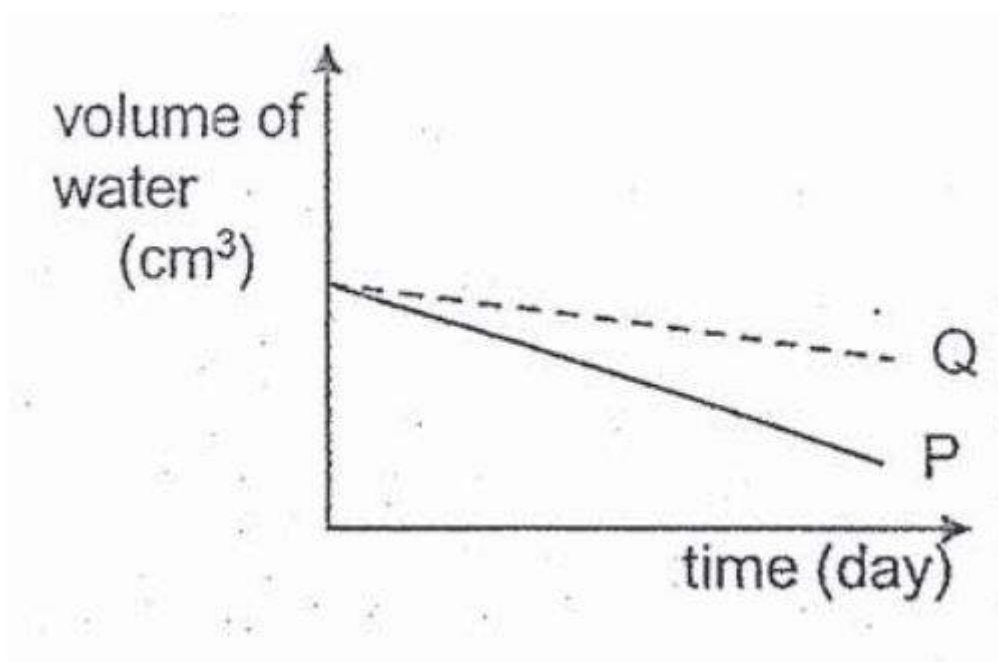
James wanted to find out if the amount of roots affect the volume of water absorbed by a plant. He placed the two set-ups near a window as shown below.



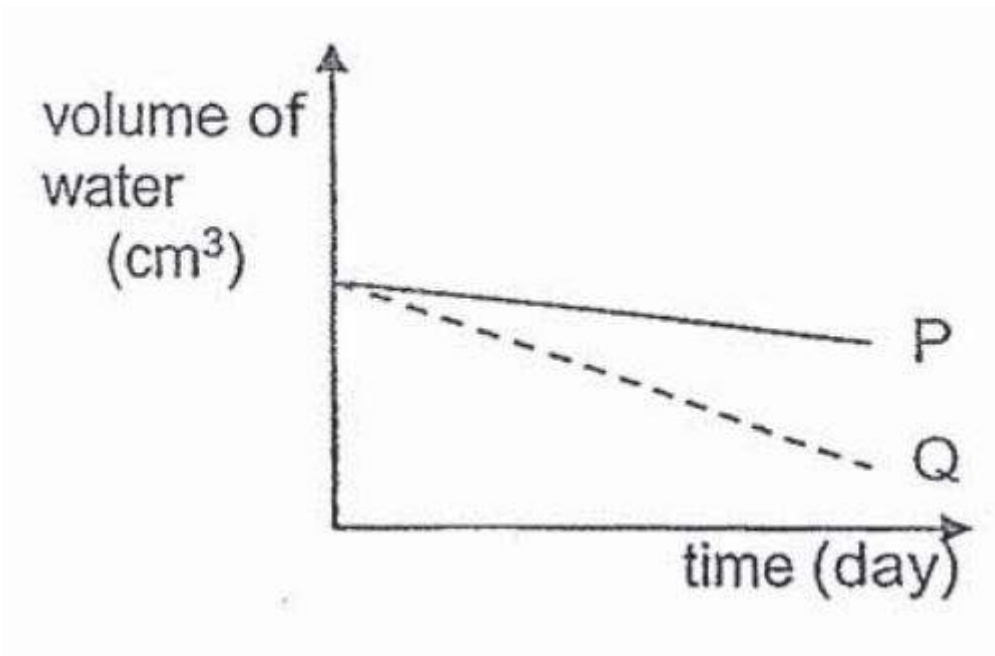
He recorded the volume of water left in the beaker for five days.

Which one of the following graphs shows his results correctly?

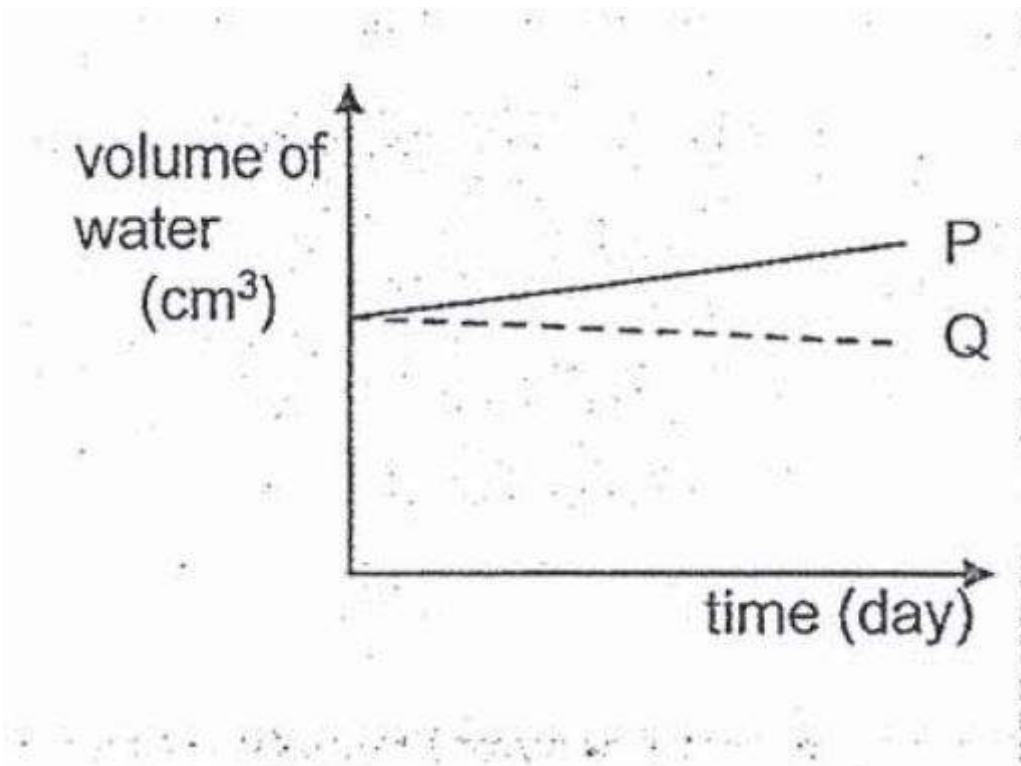
A)



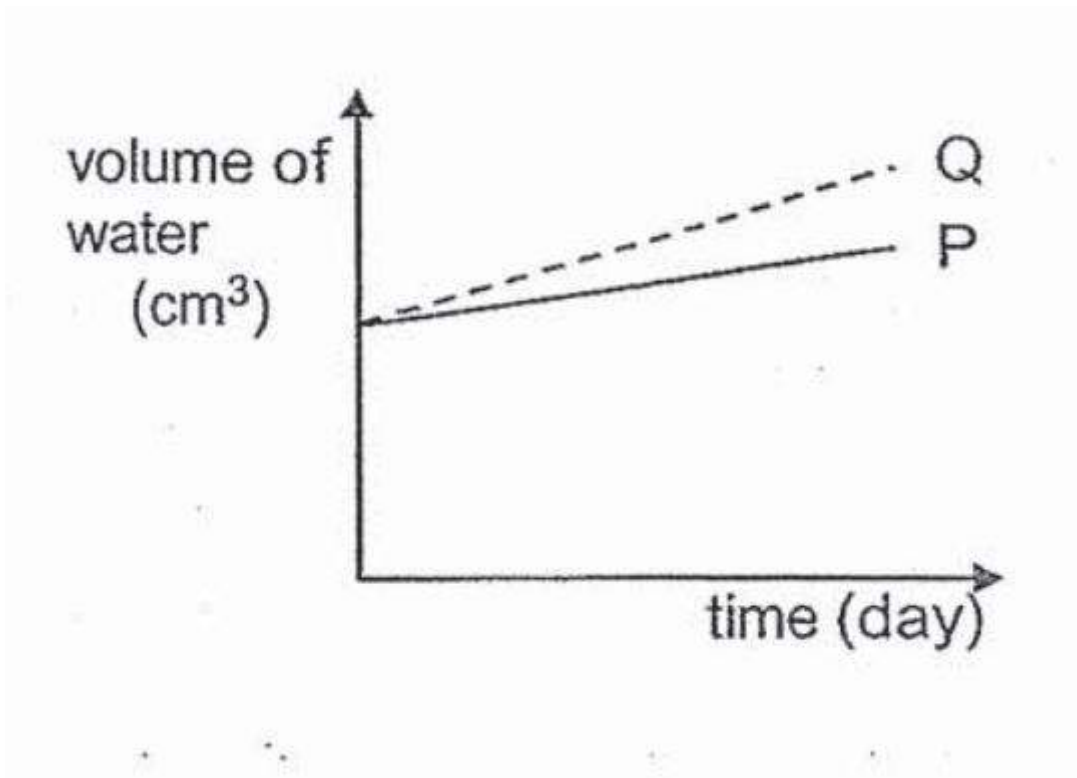
B)



c)



d)



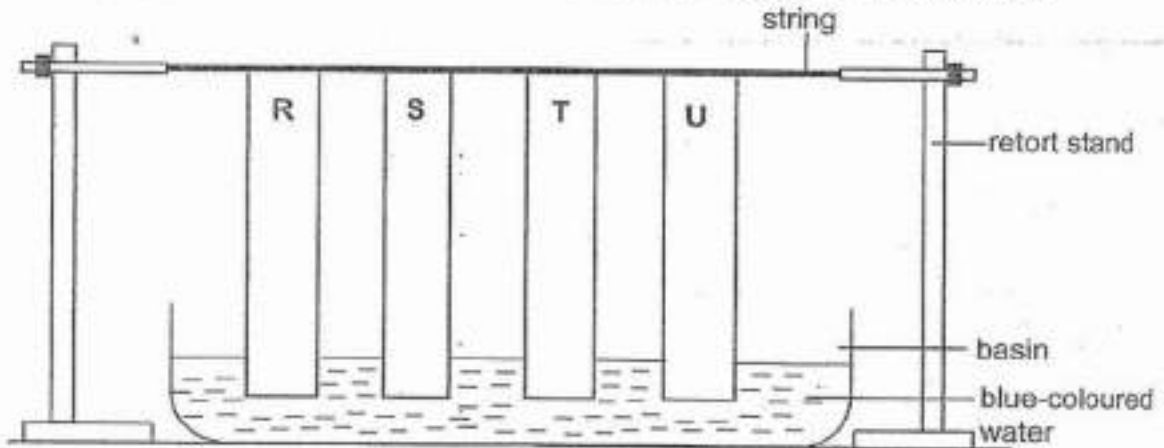


## Question 16 of 53

Primary 4 Science (Term 4)

2 pts

Joy set up an experiment as shown below to test the absorbency of four different materials, R, S, T and U. The materials are of identical length, size and thickness.



After half an hour, Joy removed the materials from the basin and string and measured the distance 'd' of each material that was stained blue. She recorded the results in the table below.



Material	R	S	T	U
Distance 'd' of material stained blue (cm)	0	8	12	10

The umbrella as shown below is used to keep Joy dry on a rainy day.



Based on the results in the above table, which material is most suitable to make part Y of the umbrella?

- A) R  
 B) S  
 C) T  
 D) U

**Question 17 of 53**

Primary 4 Science (Term 4) 2 pts

Sam used some clay to make a cylinder. Then he reshaped the same piece of clay that was used to make the cylinder into a cube as shown in diagrams below.



In what ways are the cylinder and cube similar to each other?

Both the cylinder and the cube have the same \_\_\_\_\_.

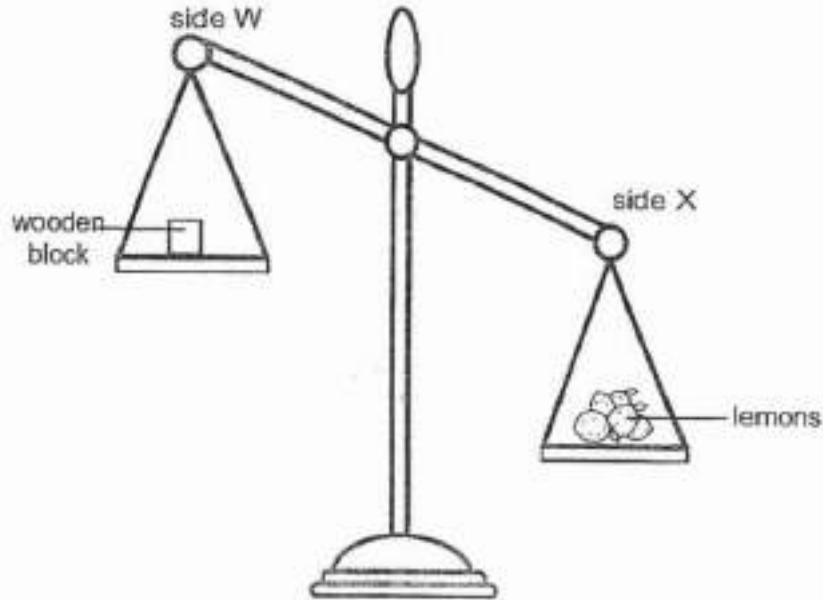
- A mass
- B shape
- C volume

- A) A only
- B) A and B only
- C) A and C only
- D) B and C only

**Question 18 of 53**

Primary 4 Science (Term 4) 2 pts

Alex wanted to find out the mass of the lemons using the set-up shown in the diagram below. He placed five lemons and a wooden block on a balance. He repeated the experiment by replacing the wooden block with other wooden blocks of different masses.



Then he recorded his observations in the table below.

Mass of wooden block (g)	Side that tilted downwards
500	X
600	X
700	W
800	W

Based on the results above, which one of the following is most likely to be the mass of five lemons?

- A) 600 g
- B) 650 g
- C) 700 g
- D) 750 g

**Question 19 of 53**

Primary 4 Science (Term 4) 2 pts

Which one of the following statements about light is NOT correct?

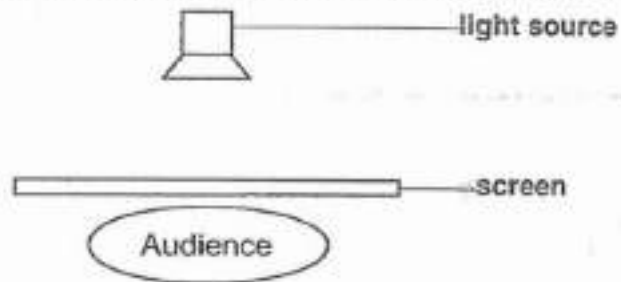
- A) Light occupies space.
- B) Light can be reflected.
- C) Light is a form of energy.
- D) Light travels in a straight line.

## Question 20 of 53

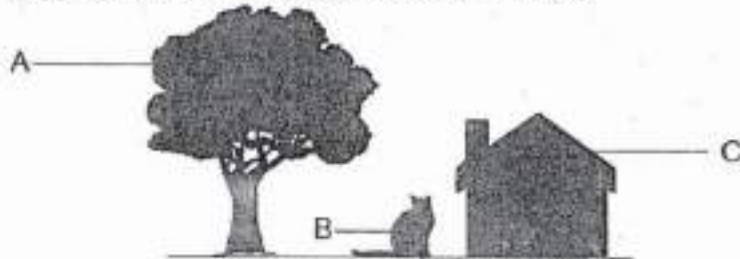
Primary 4 Science (Term 4)

2 pts

The diagram below shows the layout of the stage for a puppet performance.

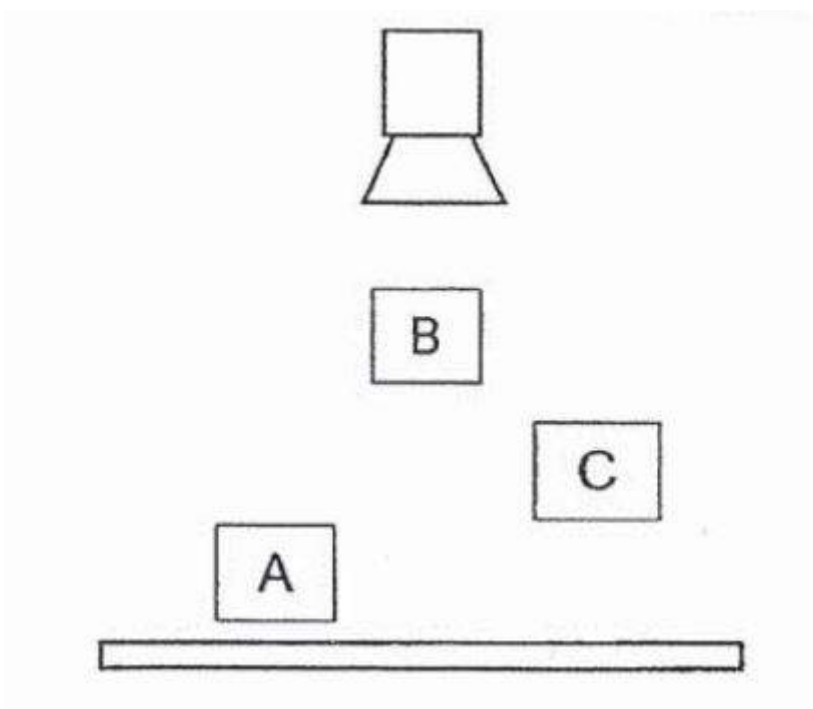


Three puppets, A, B and C, were placed between the light source and the screen. The three puppets were of the same height but different shapes. The audience saw the shadows of the puppets cast on the screen as shown below.

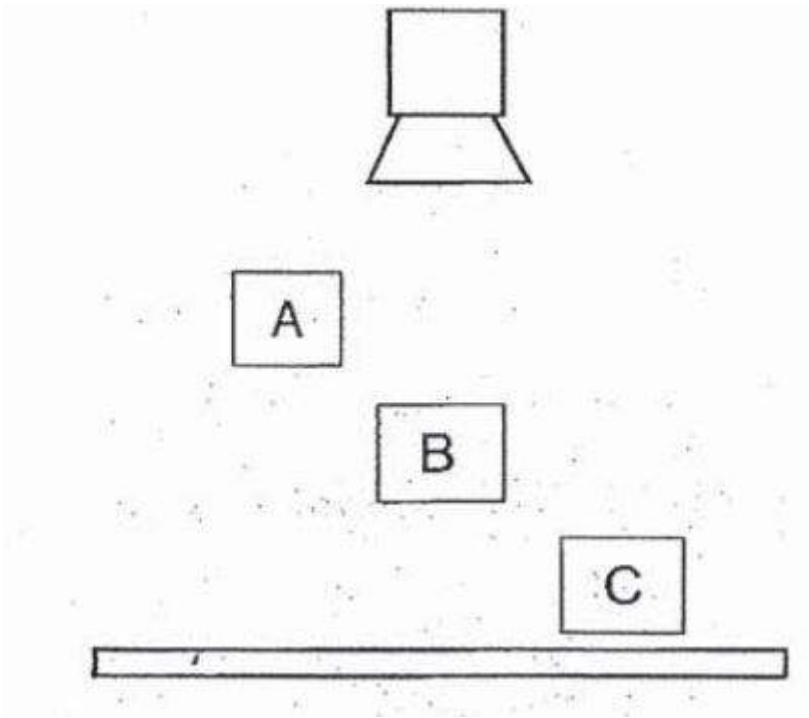


Which one of the following shows the correct position of the three puppets, A, B and C?

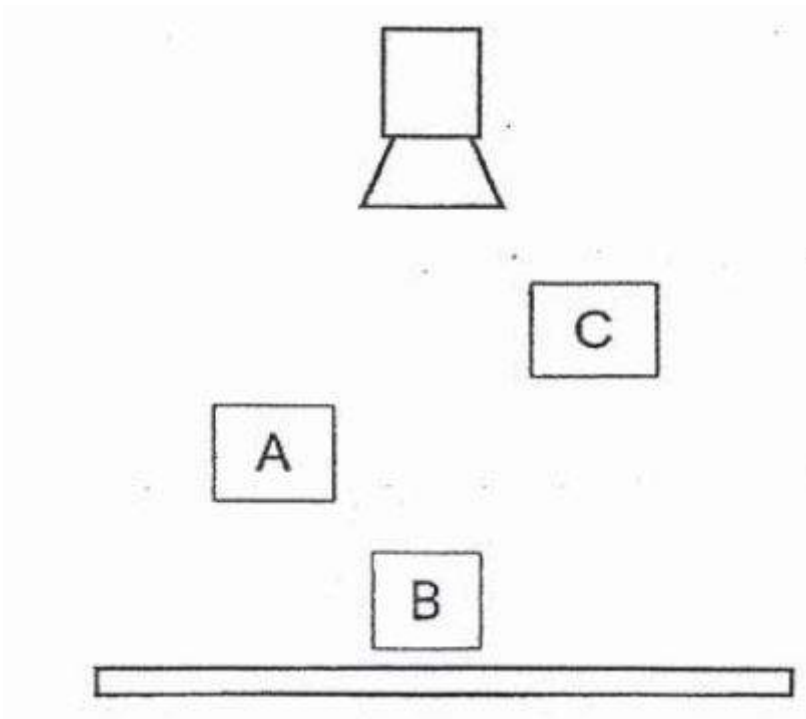
A)



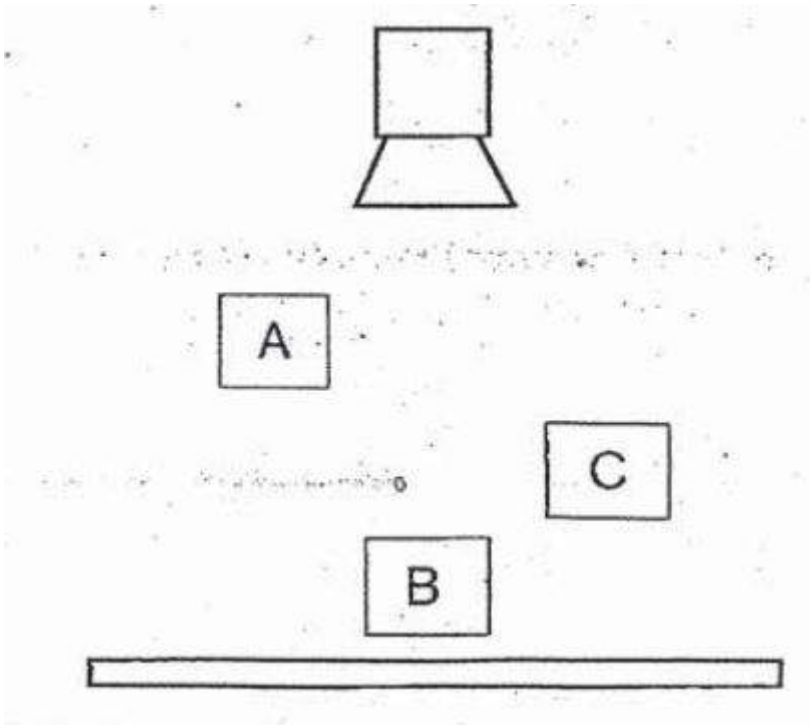
B)



C)



D)

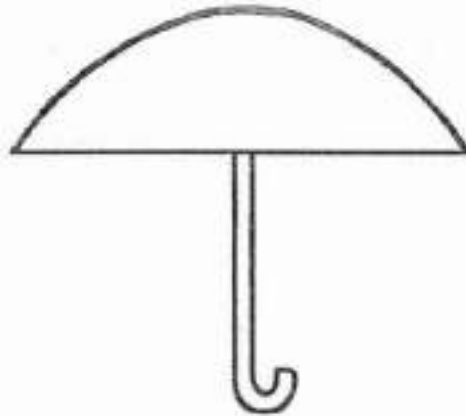


## Question 21 of 53

Primary 4 Science (Term 4)

2 pts

The diagram below shows a picture of an opened umbrella.



The opened umbrella was placed between a light source and a screen in different positions.

Which one of the following is **NOT** likely to be the shadow of the opened umbrella?

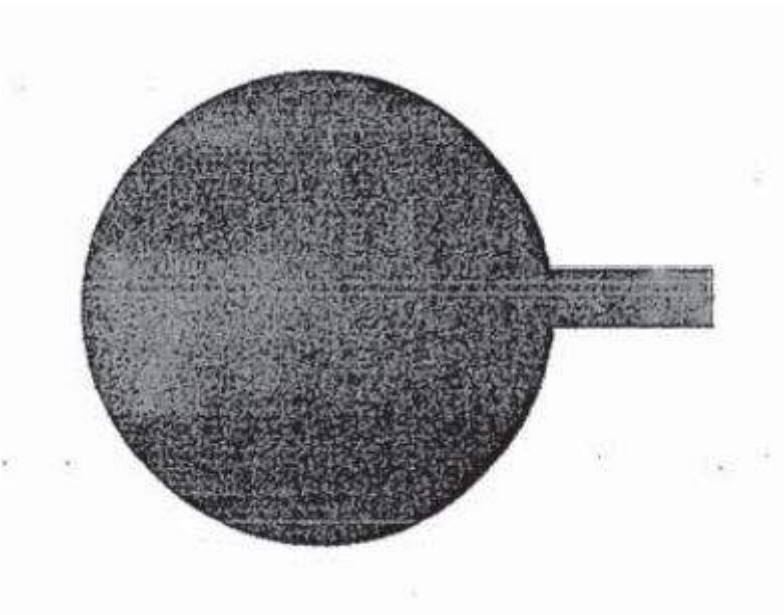
A)



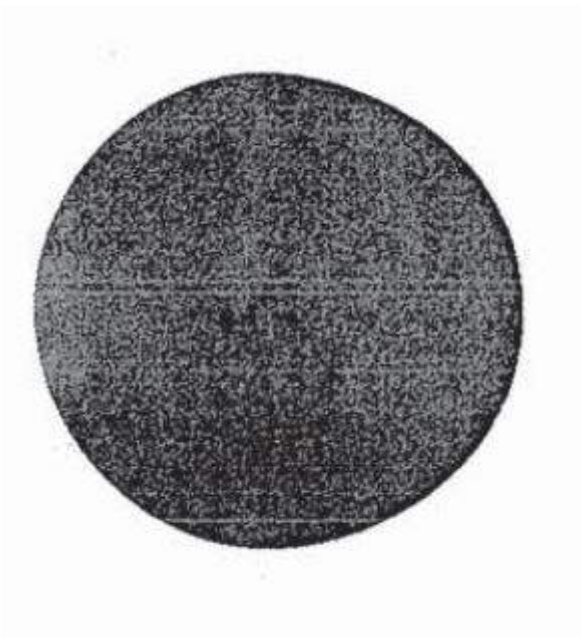
B)



C)



D)



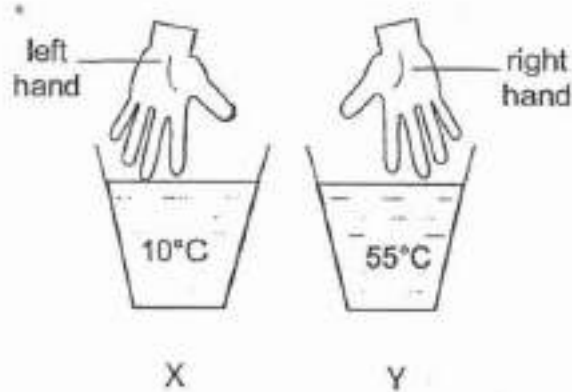


## Question 22 of 53

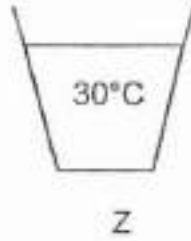
Primary 4 Science (Term 4)

2 pts

Kate filled three pails, X, Y and Z, with the same amount of water with different temperatures. Kate dipped her left hand into pail X and right hand into pail Y for three minutes.



She then put both her hands into pail Z.



Which one of the following correctly describes how Kate's hands felt in pail Z?

- A) 

Left Hand	Right Hand
warmer	warmer
- B) 

Left Hand	Right Hand
cooler	cooler
- C) 

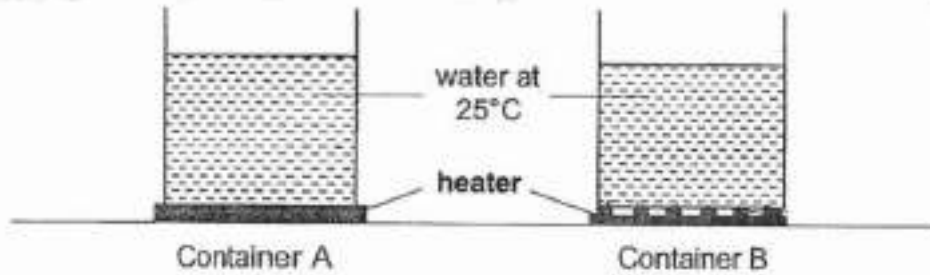
Left Hand	Right Hand
warmer	cooler
- D) 

Left Hand	Right Hand
cooler	warmer

## Question 23 of 53

Primary 4 Science (Term 4) 2 pts

Peter poured the same volume of water at 25°C into two identical containers, A and B, as shown below. Both containers A and B were placed on a heater.



After 15 minutes, which one of the following comparisons of the amount of heat in the water in both containers and explanation is correct?

- A) 

Amount of heat in the water after 15 minutes	Explanation
Water in both containers had the same amount of heat.	Temperature of water was the same in both containers
- B) 

Amount of heat in the water after 15 minutes	Explanation
Water in both containers had same amount of heat.	Both containers were made of the same material.
- C) 

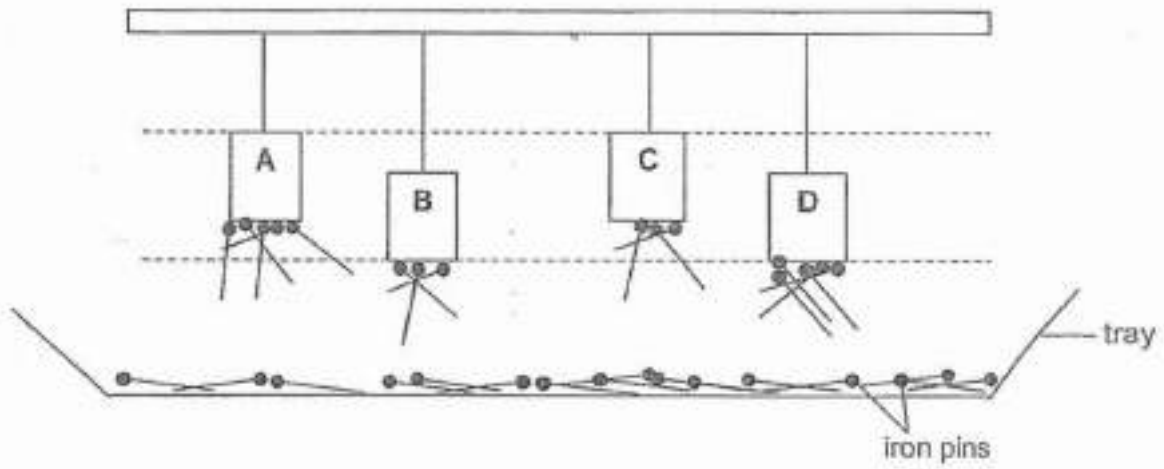
Amount of heat in the water after 15 minutes	Explanation
Water in container A had more heat than the water in container B.	Container A has a larger surface area in contact with the heater and gained more heat.
- D) 

Amount of heat in the water after 15 minutes	Explanation
Water in container B had more heat than the water in container A.	Heat was conducted more quickly to the water in container B.

## Question 24 of 53

Primary 4 Science (Term 4) 2 pts

A tray of iron pins is placed below the magnets of identical size. The diagram below shows the different number of iron pins that are attracted to the different magnets A, B, C and D.



Based on the observations above, which one of the following is the strongest magnet?

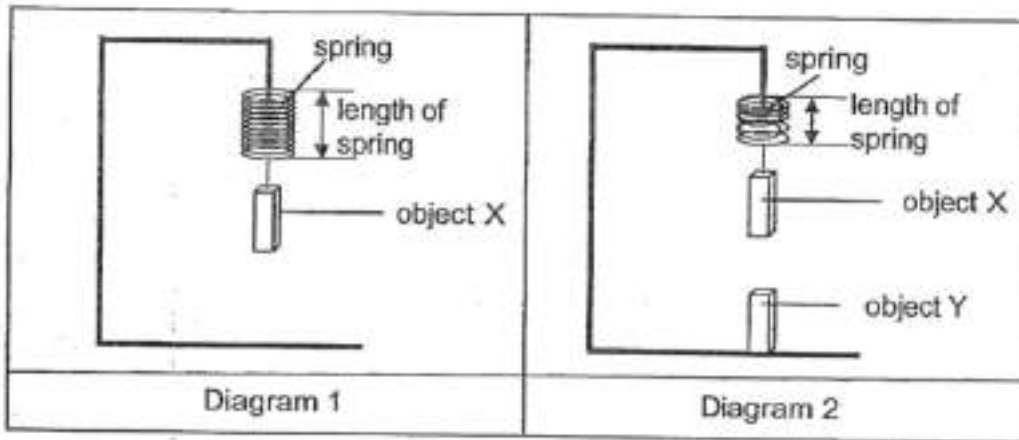
- A) A
- B) B
- C) C
- D) D

## Question 25 of 53

Primary 4 Science (Term 4)

2 pts

Jane hung object X on a spring as shown in diagram 1. Then she placed object Y directly below object X. She observed that the length of the spring became shorter as shown in diagram 2.



Based on her observations, which of the following statement(s) is/are correct?

- A Objects X and Y were magnets.
- B Unlike poles of objects X and Y were facing each other.
- C Object X was non-magnetic and object Y was a magnet.

- A) A only
- B) C only
- C) A and B only
- D) B and C only

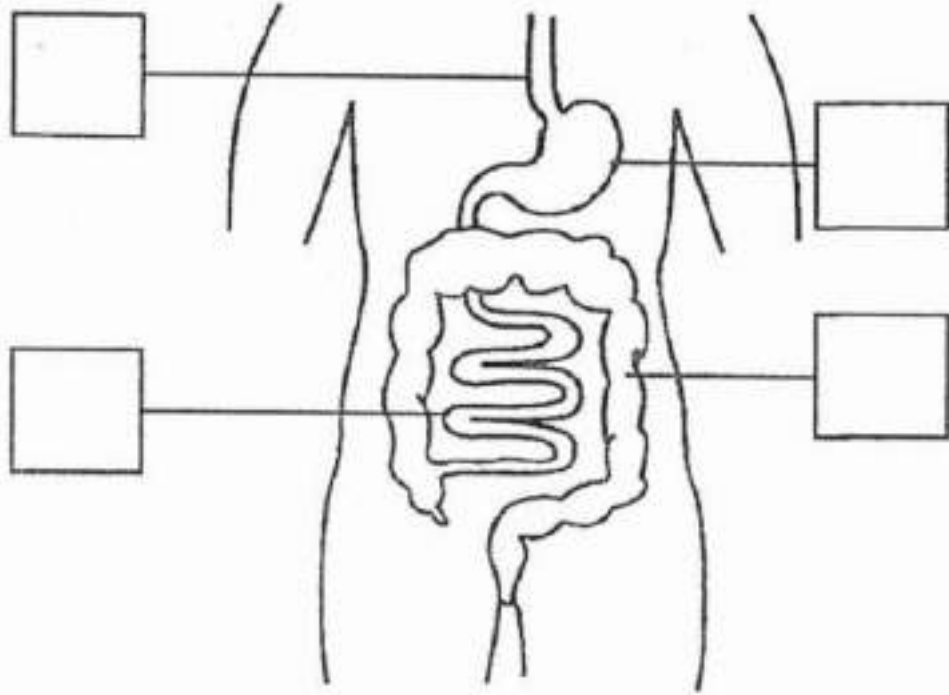
**Question 26 of 53**

Primary 4 Science (Term 4)

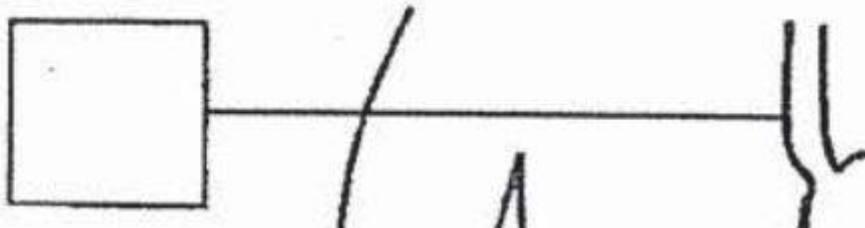
1 pt

The diagram shows part of the human digestive system.

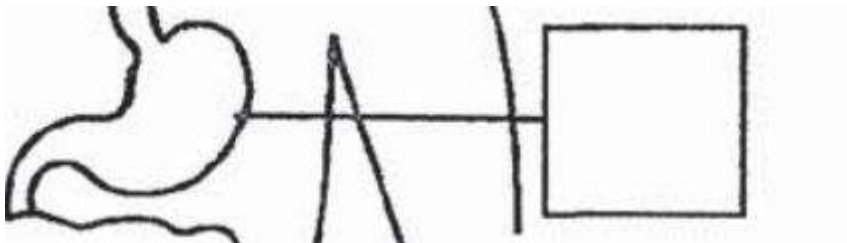
Tick one box to show where the gullet is.



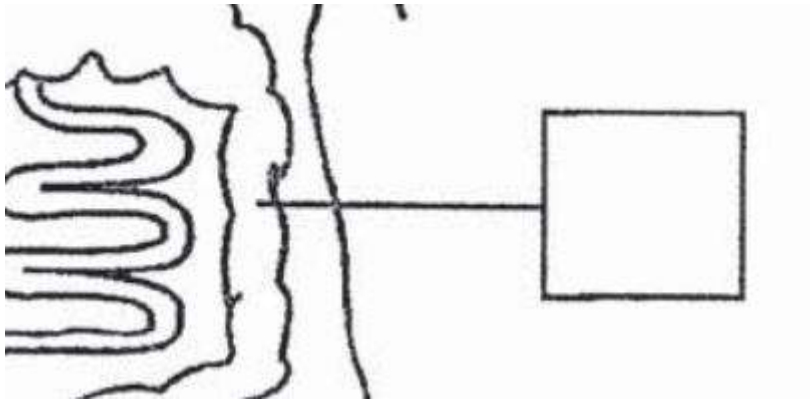
A)



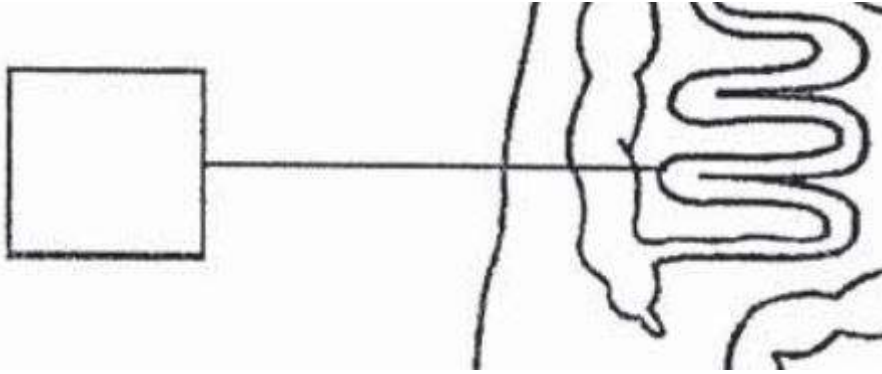
B)



C)



D)



**Question 27 of 53**

Primary 4 Science (Term 4)

1 pt

Fill in the blank using the following helping words.

Food from the gullet is next passed on to the \_\_\_\_\_.

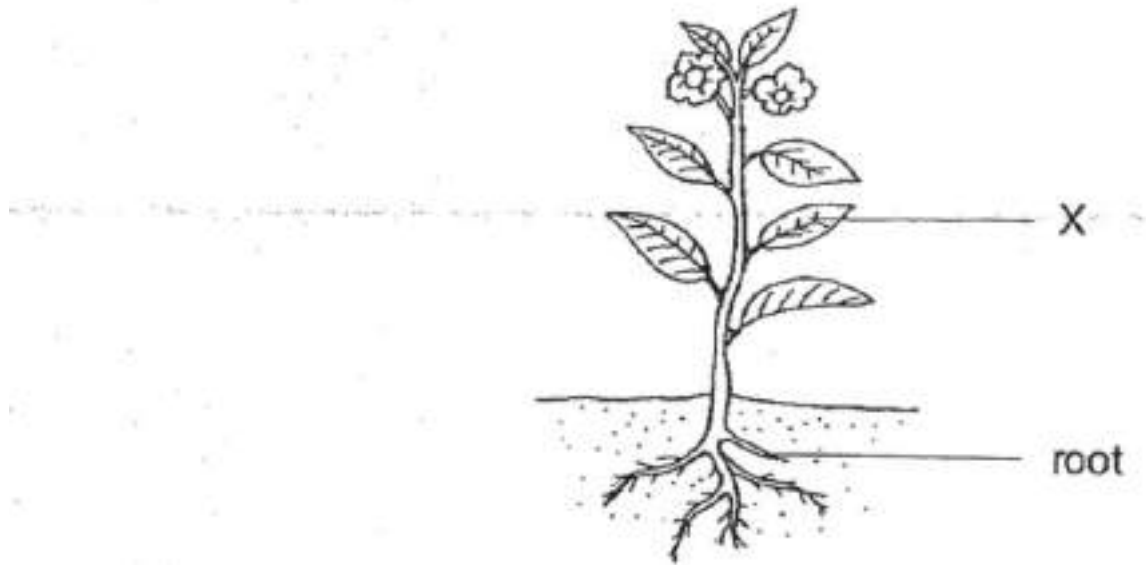
- 
- A) rectum
  - B) stomach
  - C) small intestine
  - D) mouth

**Question 28 of 53**

Primary 4 Science (Term 4)

1 pt

The diagram below shows a plant.



Name the plant part X.

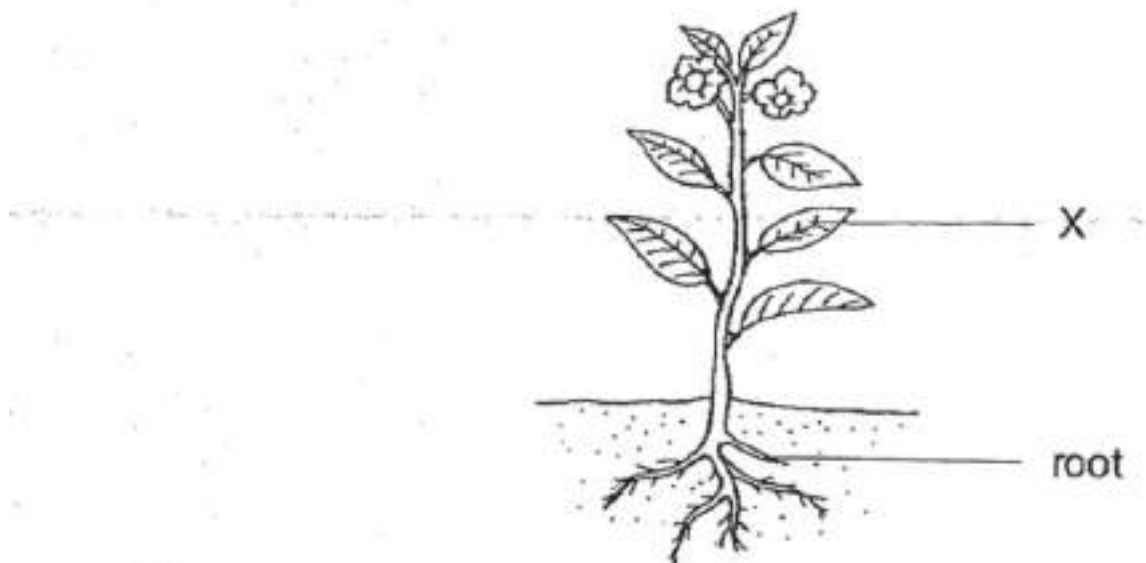
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**Question 29 of 53**

Primary 4 Science (Term 4)

1 pt

The diagram below shows a plant.



The roots take in \_\_\_\_\_ for the plant.

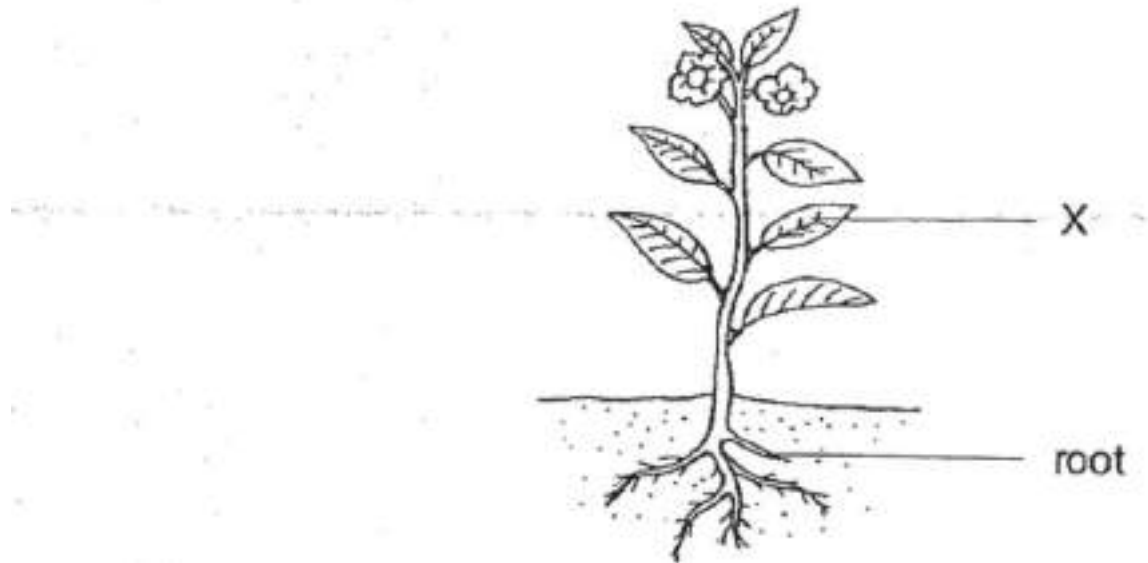
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## Question 30 of 53

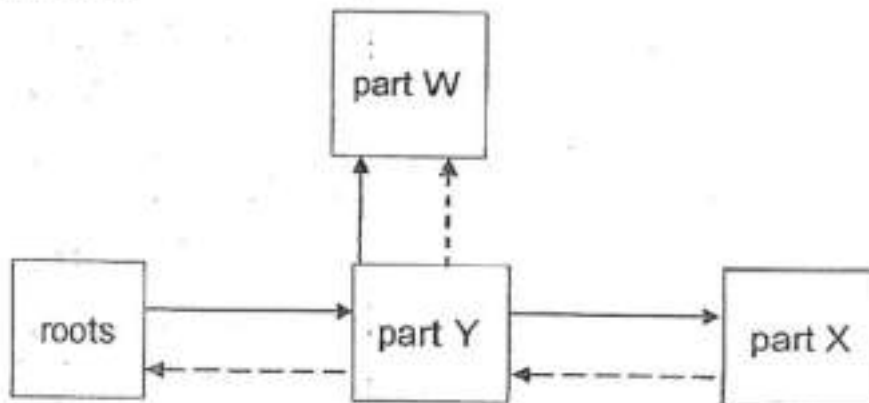
Primary 4 Science (Term 4)

2 pts

The diagram below shows a plant.



The diagram below shows a representation of the transport system of a flowering plant.



The arrows  $\longrightarrow$  and  $\dashrightarrow$  show the direction in which food and water are transported in a plant.

Match the options below:

1. [ ]  $\longrightarrow$  Transports \_\_\_\_\_ A. water

2. [ ]  $\dashrightarrow$  Transports \_\_\_\_\_ B. food

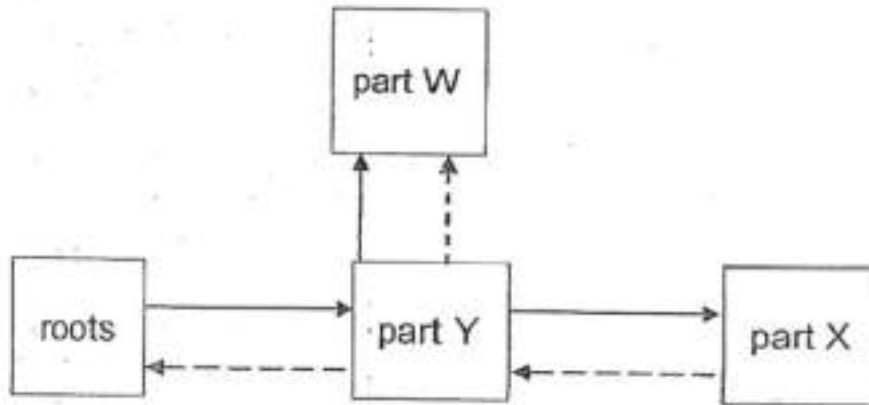


## Question 31 of 53

Primary 4 Science (Term 4)

1 pt

The diagram below shows a representation of the transport system of a flowering plant.



The arrows  $\longrightarrow$  and  $\dashrightarrow$  show the direction in which food and water are transported in a plant.

Name plant part W.

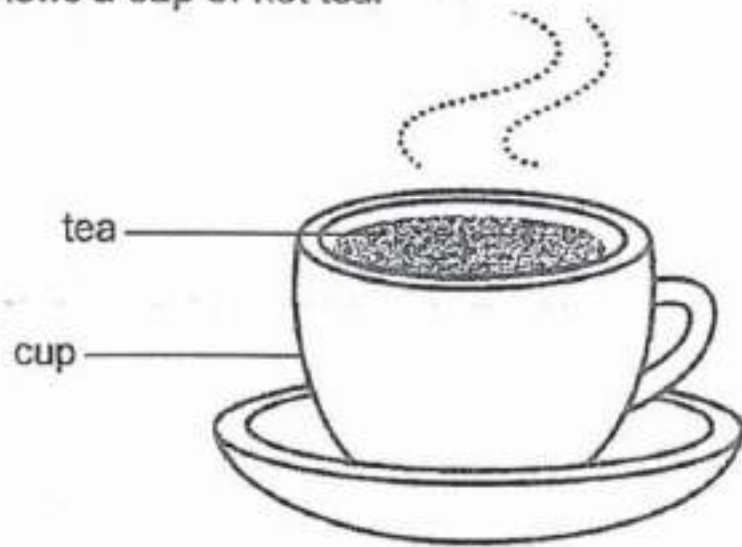
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**Question 32 of 53**

Primary 4 Science (Term 4)

2 pts

The picture below shows a cup of hot tea.



Choose the correct state for the following things.

---

1. [ ] Tea

A. Liquid

---

2. [ ] Cup

B. Solid

---

C. Gas

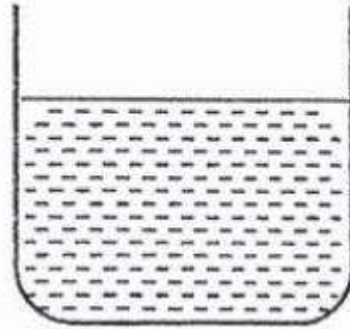
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## Question 33 of 53

Primary 4 Science (Term 4)

2 pts

The diagram below shows a beaker of milk.



Fill in the blanks using the correct words given.

1. [ ] When heat is removed from the milk, its temperature \_\_\_\_\_.

A. remains unchanged

2. [ ] The beaker of milk is put in the freezer. After some time, the milk will change its state to become a \_\_\_\_\_.

B. gas

C. liquid

D. decreases

E. solid

F. increases

## Question 34 of 53

Primary 4 Science (Term 4)

1 pt

Susan placed a magnet near an aluminium rod as shown below.  
The aluminium rod did not move towards the magnet.



The magnet did not \_\_\_\_\_ the aluminium rod.

**Question 35 of 53**

Primary 4 Science (Term 4)

1 pt

Susan placed a magnet near an aluminium rod as shown below.  
The aluminium rod did not move towards the magnet.



Choose the correct word for the options below to answer the question.

The aluminium rod is made of a \_\_\_\_\_ material.

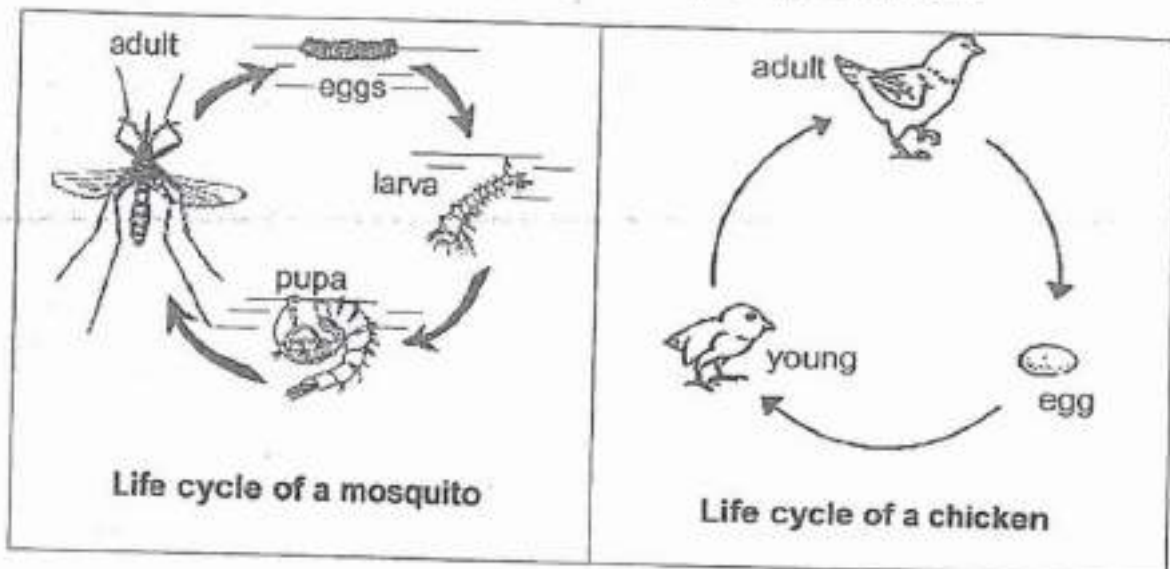
- A) Flexible
- B) Non-magnetic
- C) Strong

**Question 36 of 53**

Primary 4 Science (Term 4)

0 pts

The diagram below shows the life cycle of a mosquito and a chicken.



Based on your observation, state one similarity and one difference between the two life cycles. [Do NOT compare size, shape, colour and body covering.]  
(2 marks)

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

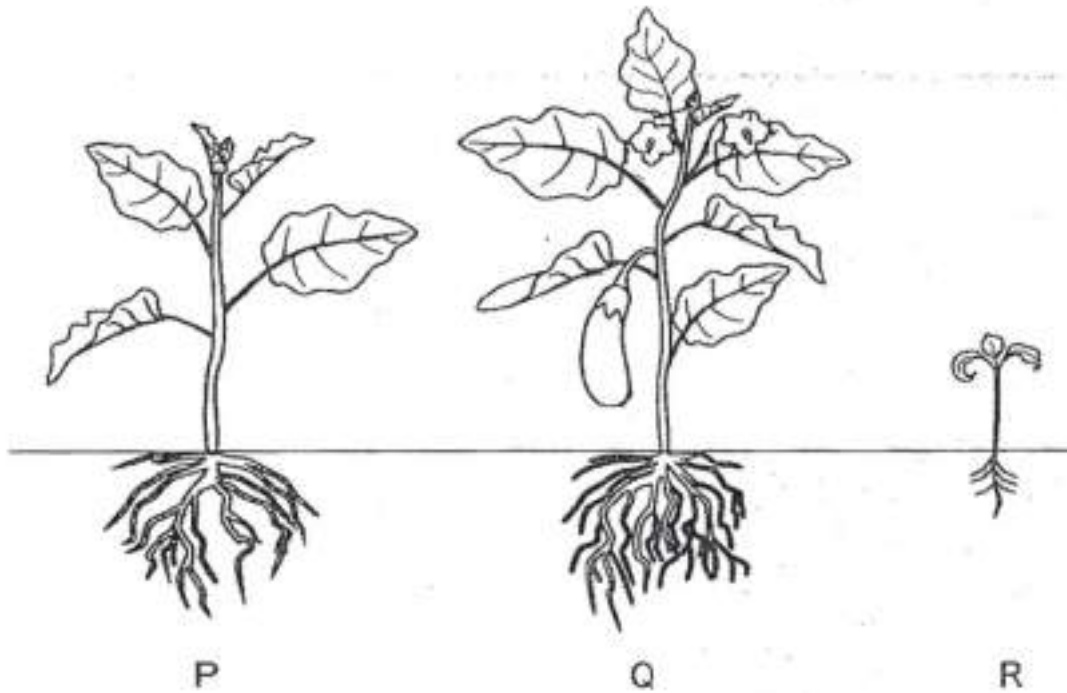
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

**Question 37 of 53**

Primary 4 Science (Term 4)

1 pt

The diagram below shows a flowering plant at three stages, P, Q and R.



At which stage, P, Q or R is the plant at its adult stage?

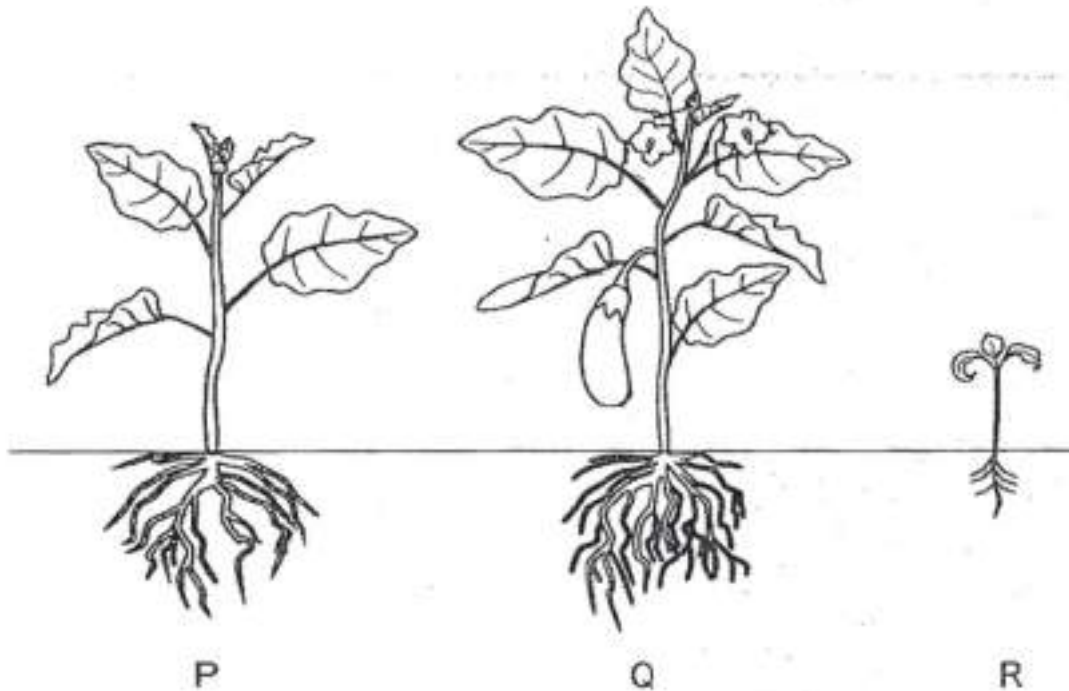
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**Question 38 of 53**

Primary 4 Science (Term 4)

0 pts

The diagram below shows a flowering plant at three stages, P, Q and R.



Based on your observation, give a reason for your answer in the previous question. [Do NOT compare size and shape.] (1 mark)

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

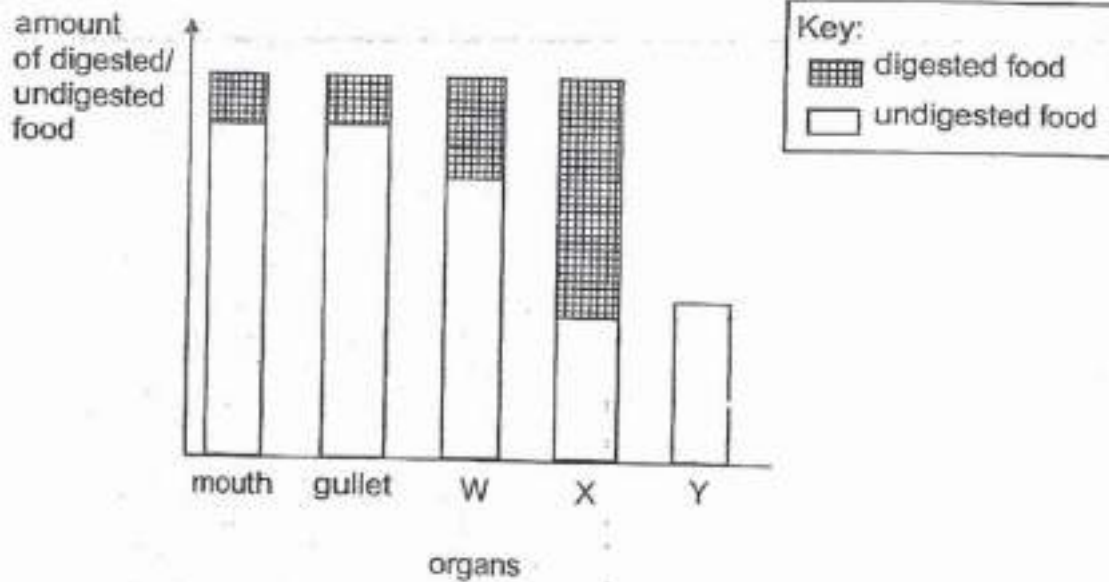
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

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## Question 39 of 53

Primary 4 Science (Term 4) 0 pts

The graph below shows the amount of digested and undigested food in the different organs in the digestive system.



State a reason why the amount of digested food in the gullet is the same as the amount of digested food in the mouth. (1 mark)

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

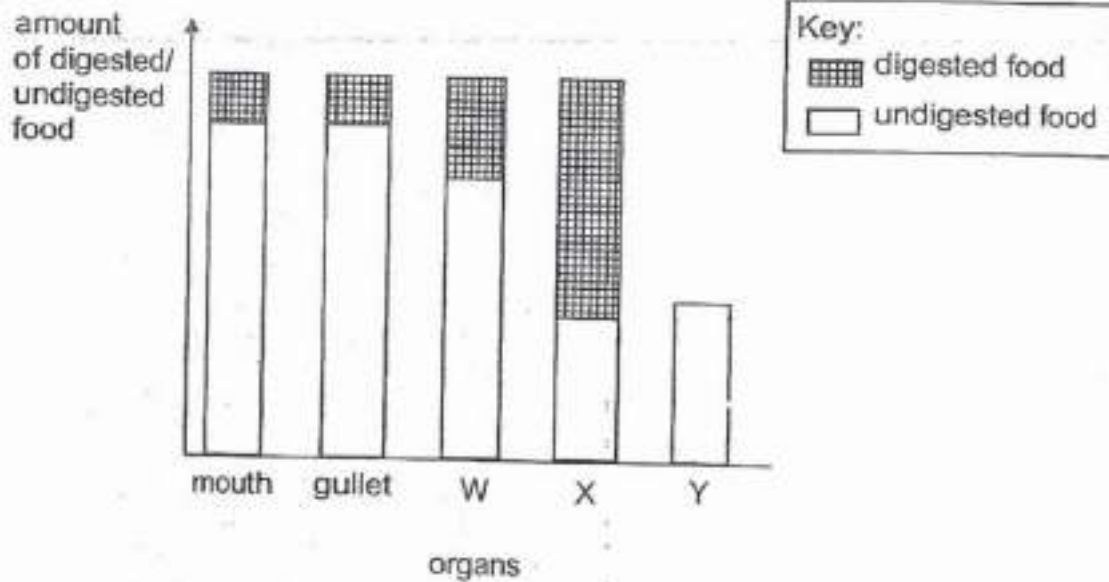
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

## Question 40 of 53

Primary 4 Science (Term 4)

0 pts

The graph below shows the amount of digested and undigested food in the different organs in the digestive system.



What organ in the digestive system could Y be? Explain your answer. (2 marks)

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*



## Question 41 of 53

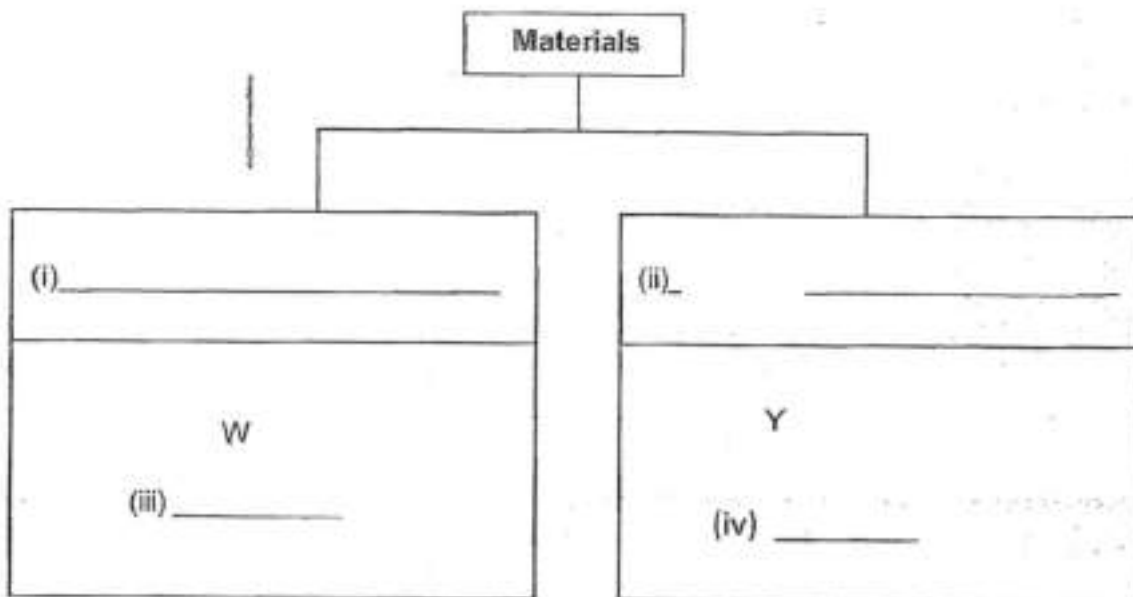
Primary 4 Science (Term 4)

1 pt

The table below shows the physical properties of four materials, W, X, Y and Z. A tick (✓) shows the presence of the property.

Properties	Materials			
	W	X	Y	Z
Is it flexible?	✓			✓
Is it waterproof	✓	✓	✓	
Does it allow light to pass through?		✓		

In the classification table below, write the possible headings for the two groups in (i) and (ii).



## Question 42 of 53

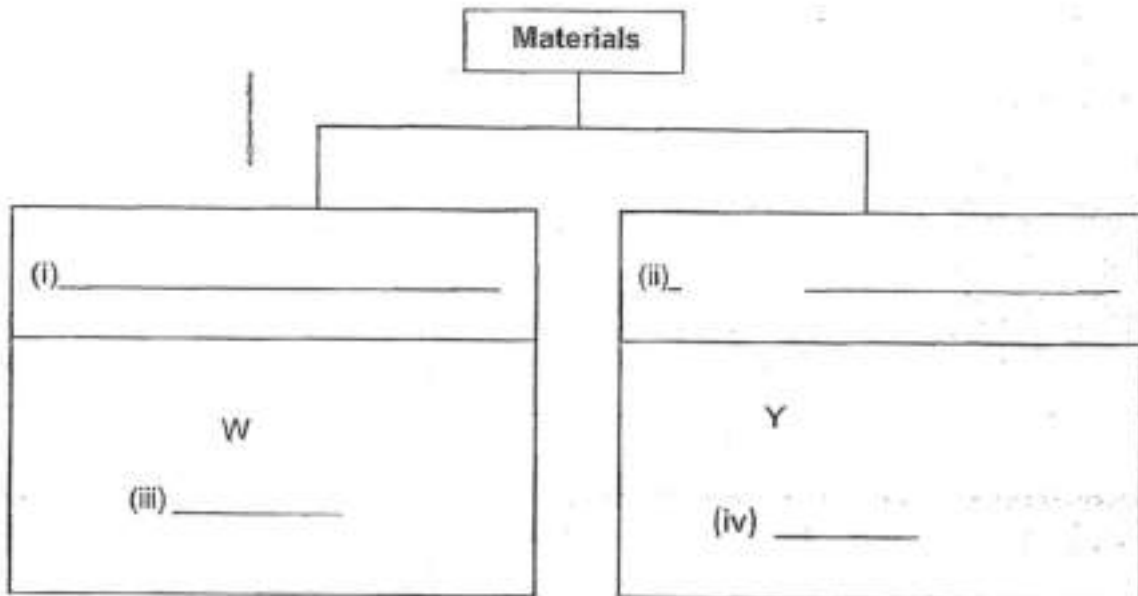
Primary 4 Science (Term 4)

1 pt

The table below shows the physical properties of four materials, W, X, Y and Z. A tick (✓) shows the presence of the property.

Properties	Materials			
	W	X	Y	Z
Is it flexible?	✓			✓
Is it waterproof	✓	✓	✓	
Does it allow light to pass through?		✓		

Fill in the blanks for (iii) and (iv) with the correct materials, X or Z.

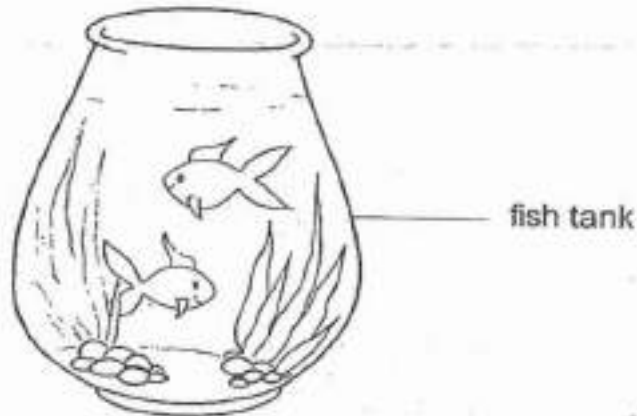


## Question 43 of 53

Primary 4 Science (Term 4)

0 pts

The diagram below shows a fish tank.



Based on the properties of the materials given in the table, which material, W, X, Y or Z, should be use for making the fish tank? Give two reasons for your answer. [2]

Material : \_\_\_\_\_

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

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

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

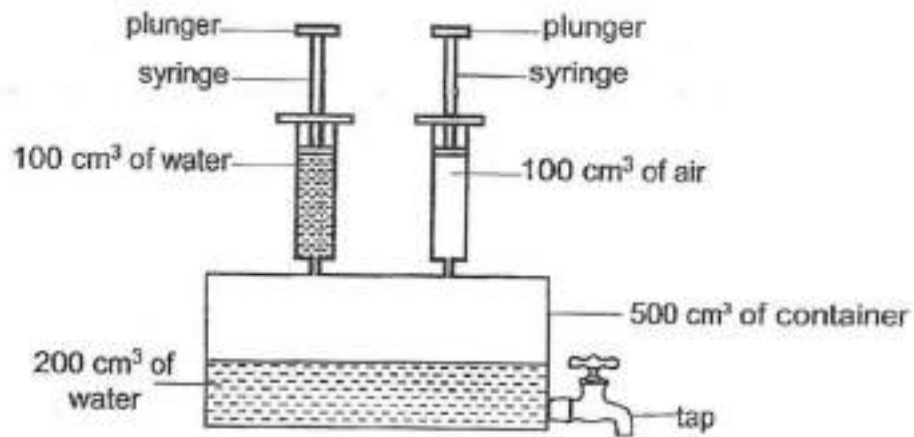
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

## Question 44 of 53

Primary 4 Science (Term 4)

2 pts

The diagram below shows a container with a capacity of  $500 \text{ cm}^3$ . It was filled with  $200 \text{ cm}^3$  of water. Two syringes, filled with  $100 \text{ cm}^3$  of water and air respectively, were attached to the container.



In the options below, choose the correct answer that shows how the volume of water and air in the container would change after the plungers of both syringes were pushed down completely.

---

1. [ ] Water

A. Increase

---

2. [ ] Air

B. Remains the same

---

C. Decrease

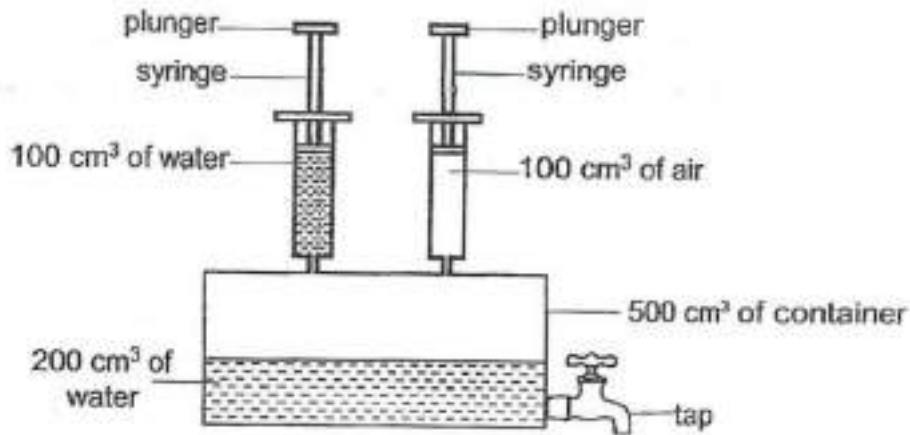
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## Question 45 of 53

Primary 4 Science (Term 4)

0 pts

The diagram below shows a container with a capacity of  $500 \text{ cm}^3$ . It was filled with  $200 \text{ cm}^3$  of water. Two syringes, filled with  $100 \text{ cm}^3$  of water and air respectively, were attached to the container.



Without changing any of the apparatus, state one way to increase the volume of air in the container. Explain your answer. (2 marks)

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

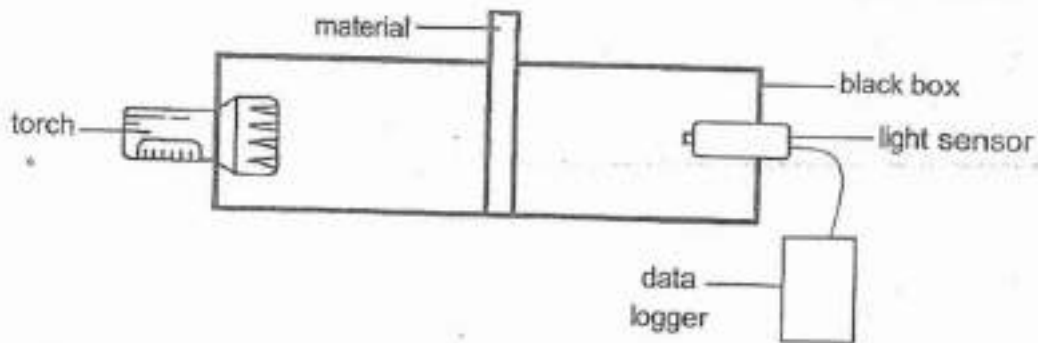
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

## Question 46 of 53

Primary 4 Science (Term 4)

1 pt

Emir conducted an experiment as shown below. In a black box, he placed four different materials, W, X, Y and Z, between a torch and a light sensor, one at a time.



Emir turned on the torch and recorded the amount of light detected by the light sensor in the table below.

Material	Amount of light detected by light sensor (unit)
W	0
X	1450
Y	875
Z	100

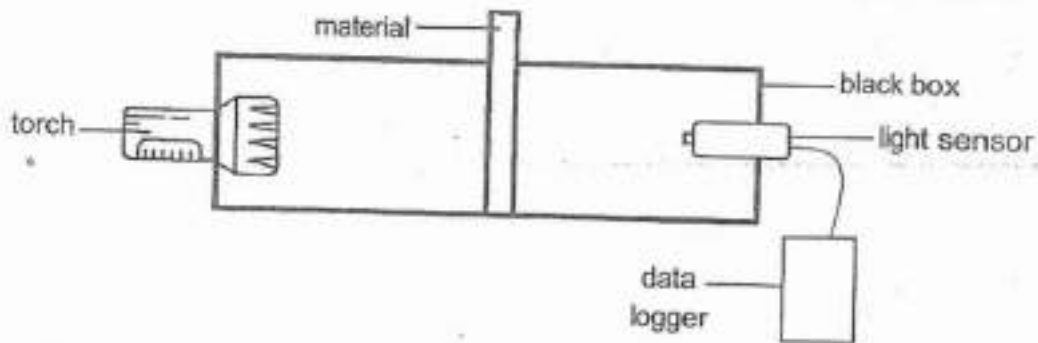
Which of these variable(s) should Emir keep the same? Choose the correct answer.

- A) Type of material
- B) Thickness of material
- C) Amount of light detected by the light sensor
- D) Distance between the torch and the material

## Question 47 of 53

Primary 4 Science (Term 4) 2 pts

Emir conducted an experiment as shown below. In a black box, he placed four different materials, W, X, Y and Z, between a torch and a light sensor, one at a time.

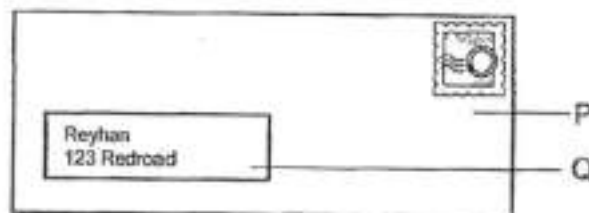


Emir turned on the torch and recorded the amount of light detected by the light sensor in the table below.

Material	Amount of light detected by light sensor (unit)
W	0
X	1450
Y	875
Z	100

Emir wanted to choose two materials to make an envelope to send letters to his friends. One of the materials would be used for part P and the other material for part Q of the envelope as shown below.

Part P would hide the writing in the letter while part Q would enable him to see the address printed on the letter clearly.



Based on the results of his experiment, which materials, W, X, Y or Z would best be used to make parts P and Q of the envelope?

1. [ ] P: \_\_\_\_\_

A. Z

2. [ ] Q: \_\_\_\_\_

B. Y

C. W

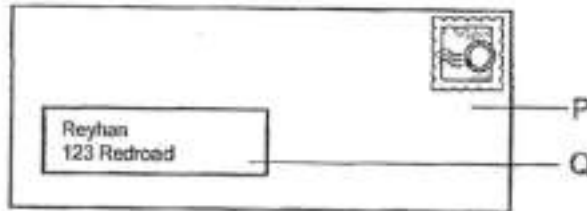
D. X

**Question 48 of 53**

Primary 4 Science (Term 4) 0 pts

Emir wanted to choose two materials to make an envelope to send letters to his friends. One of the materials would be used for part P and the other material for part Q of the envelope as shown below.

Part P would hide the writing in the letter while part Q would enable him to see the address printed on the letter clearly.



Give a reason for your answer to make part P. (1 mark)

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

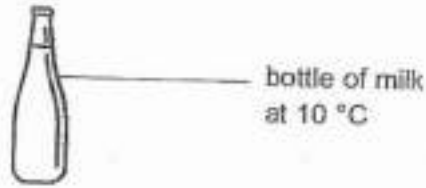


## Question 49 of 53



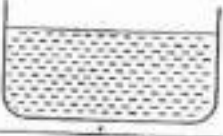
Primary 4 Science (Term 4)

0 pts

Sophie took a bottle of cold milk out of the fridge as shown below.



There were three identical basins, R, S and T, each containing different amount of water at a temperature of 90 °C. Sophie wanted to warm the cold milk by putting it into the basins of water.

		
<b>Basin R</b>	<b>Basin S</b>	<b>Basin T</b>
Temperature of water: 90 °C Amount of water : 30 ml	Temperature of water: 90 °C Amount of water : 60 ml	Temperature of water: 90 °C Amount of water : 90 ml

In which basin of water, R, S or T, would the bottle of milk become warm least quickly after five minutes? Explain your answer. (2 marks)

This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

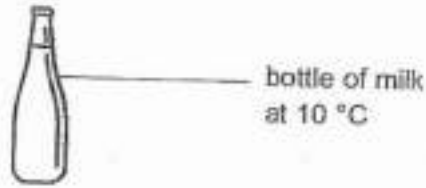
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

## Question 50 of 53



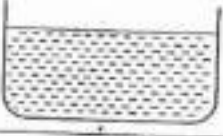
Primary 4 Science (Term 4)

0 pts

Sophie took a bottle of cold milk out of the fridge as shown below.



There were three identical basins, R, S and T, each containing different amount of water at a temperature of 90 °C. Sophie wanted to warm the cold milk by putting it into the basins of water.

		
<b>Basin R</b>	<b>Basin S</b>	<b>Basin T</b>
Temperature of water: 90 °C Amount of water : 30 ml	Temperature of water: 90 °C Amount of water : 60 ml	Temperature of water: 90 °C Amount of water : 90 ml

After ten hours, what would most likely to be the temperature of water in the basin and the milk placed in a room with a temperature of 30°C. (2 marks)

Water in basin: \_\_\_\_\_ °C

Milk in the bottle: \_\_\_\_\_ °C

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

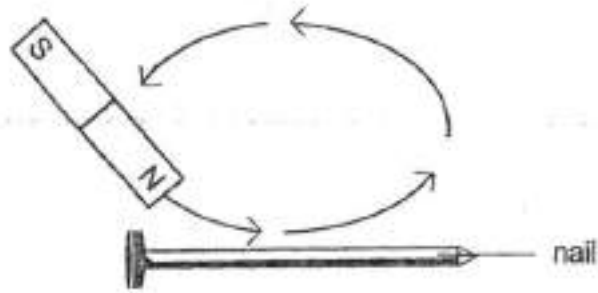
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

**Question 51 of 53**

Primary 4 Science (Term 4)

1 pt

Peter used the stroking method to make the nail a temporary magnet as shown in the diagram.



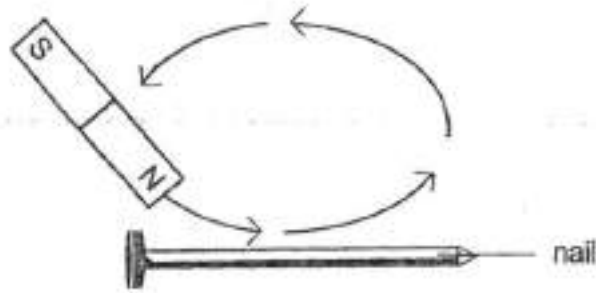
Suggest a material which the nail shown above is made of. (1 mark)

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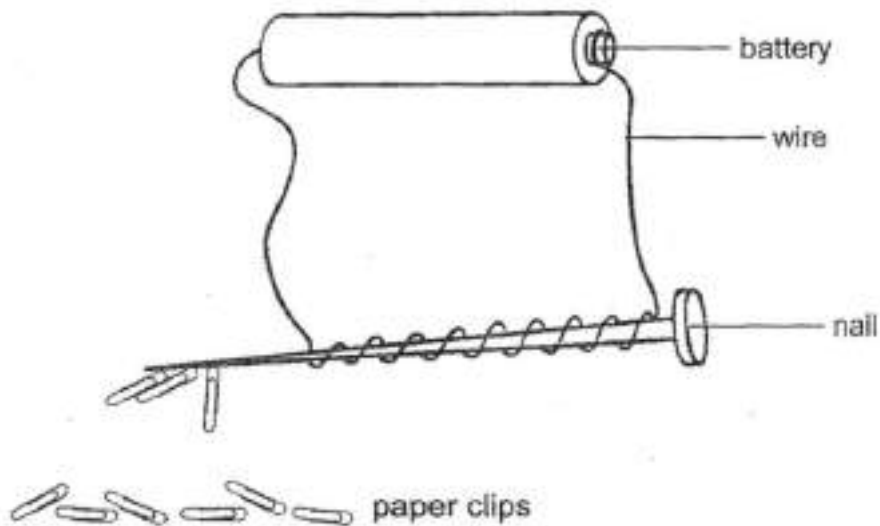
## Question 52 of 53

Primary 4 Science (Term 4) 0 pts

Peter used the stroking method to make the nail a temporary magnet as shown in the diagram.



Peter connected the nail in an electrical circuit as shown in the diagram below. He observed that the nail attracted a few paper clips.



Explain why the nail was able to attract the steel paper clips.

[1]

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

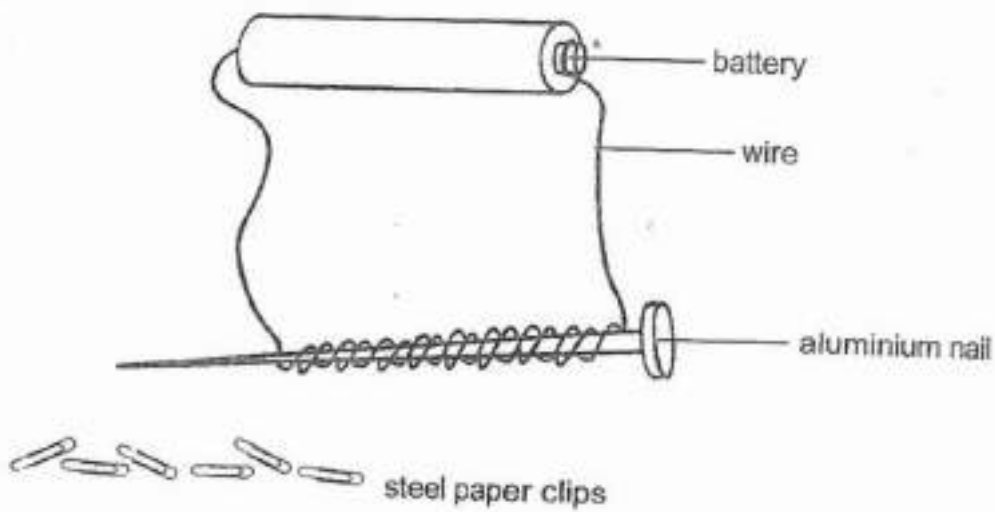
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

## Question 53 of 53

Primary 4 Science (Term 4)

0 pts

Peter repeated the experiment by replacing the nail with an aluminium nail. He increased the number of turns of wire round the aluminium nail as shown below.



Predict the number of paper clips attracted to the aluminium nail.  
Explain your answer.

[2]

*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*