

**Test:** Primary 5 Science (Term 1) - St Nicholas (2020)

**Points:** 43 points

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

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

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

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

Select multiple choice answers with a cross or tick:

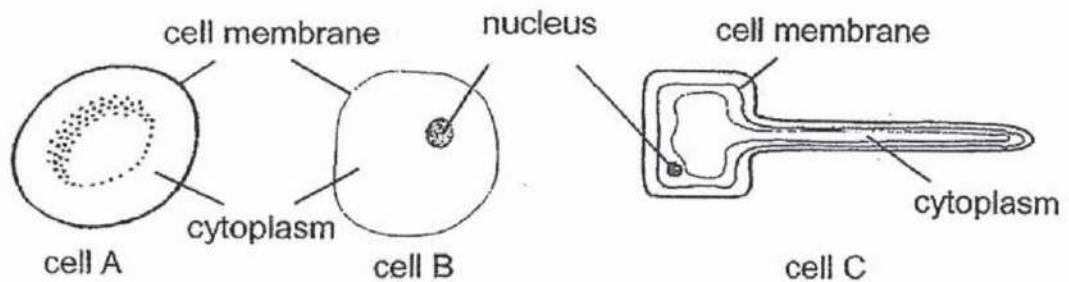
- Only select one answer
- Can select multiple answers

**Question 1 of 31**

Primary 5 Science (Term 1) 2 pts

For each question, four options are given. One of them is the correct answer. Make your choice and choose the correct answer. (18 x 2 marks = 36 marks)

The diagram below shows three types of cells A, B and C.



Four girls made the following statements about the cells.

- Amy** Cell C is likely a plant cell.
- Bella** Cell A is not an animal cell.
- Cayla** Cell B is able to reproduce.
- Dhalia** Cells A, B and C are all animal cells as they all have a cell membrane.

Whose statements is / are correct?

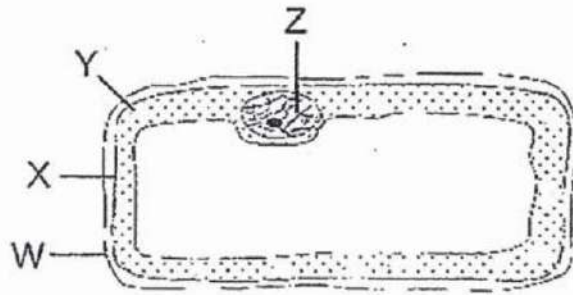
- A)** Bella only
- B)** Dhalia only
- C)** Amy and Cayla only
- D)** Amy, Bella and Cayla only

## Question 2 of 31

Primary 5 Science (Term 1)

2 pts

Study the diagram below.



Which one of the following correctly matches the cell part to its function?

A)

Cell Part	Function
W	Controls all activities of the cell.

B)

Cell Part	Function
X	Prevents certain substances from entering the cell.

C)

Cell Part	Function
Y	Contains the other cell parts.

D)

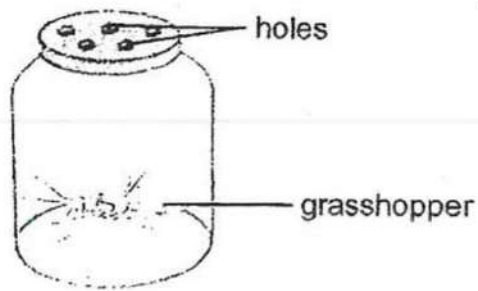
Cell Part	Function
Z	Makes food for the cell.

**Question 3 of 31**

Primary 5 Science (Term 1)

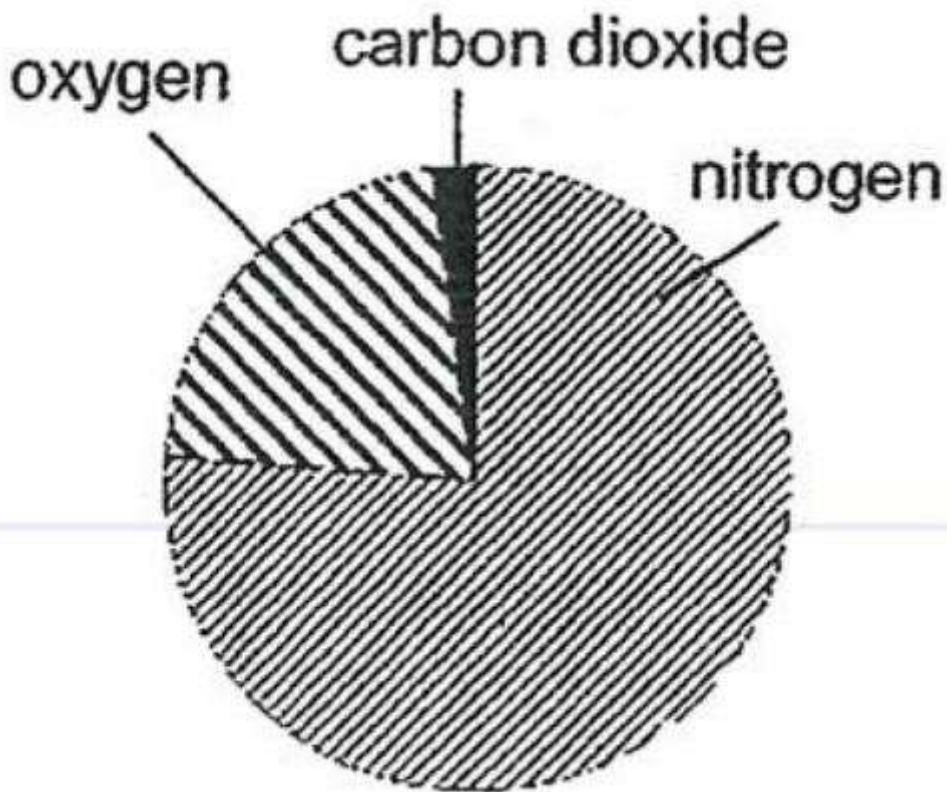
2 pts

A grasshopper was placed in a jar as shown below.

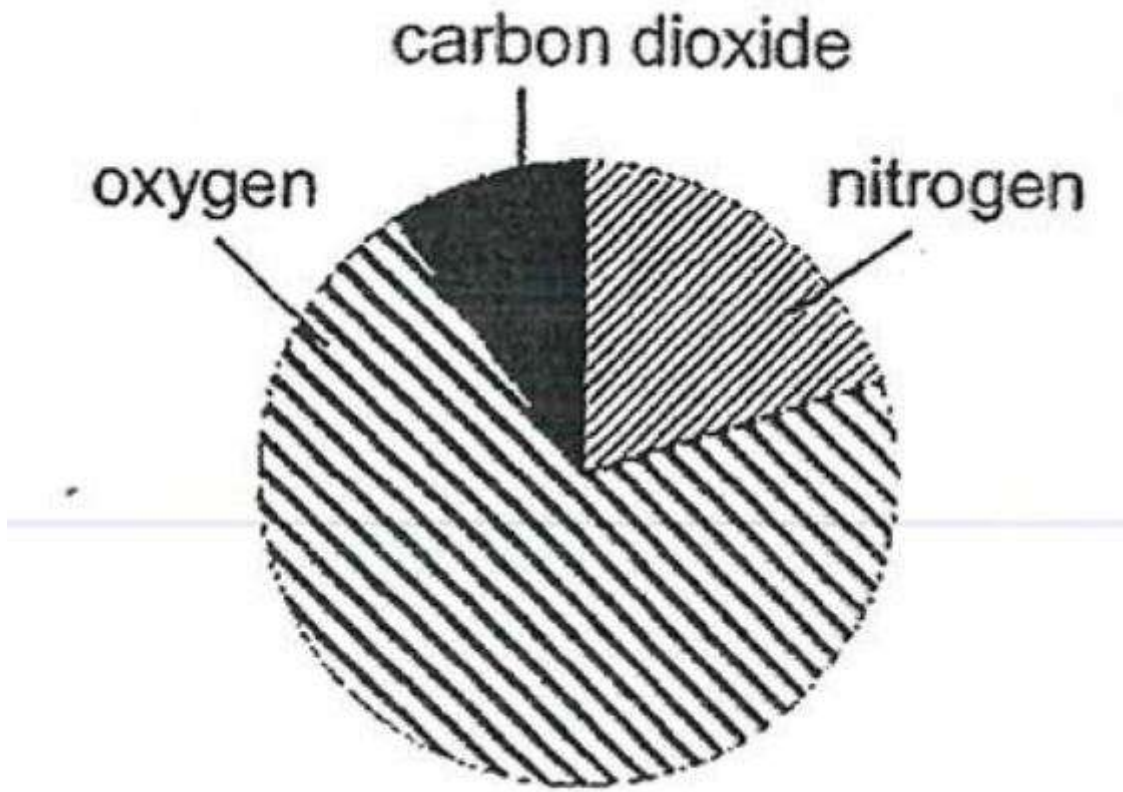


Which one of the following pie charts shows the possible composition of gases in the jar after a day?

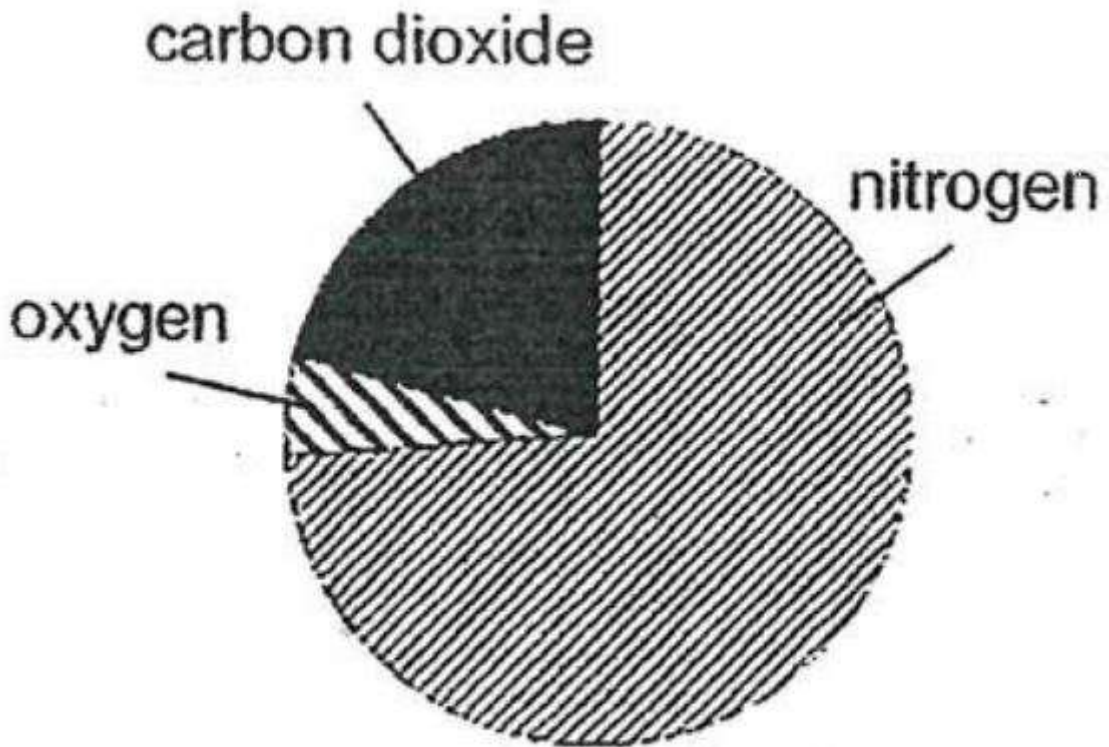
A)



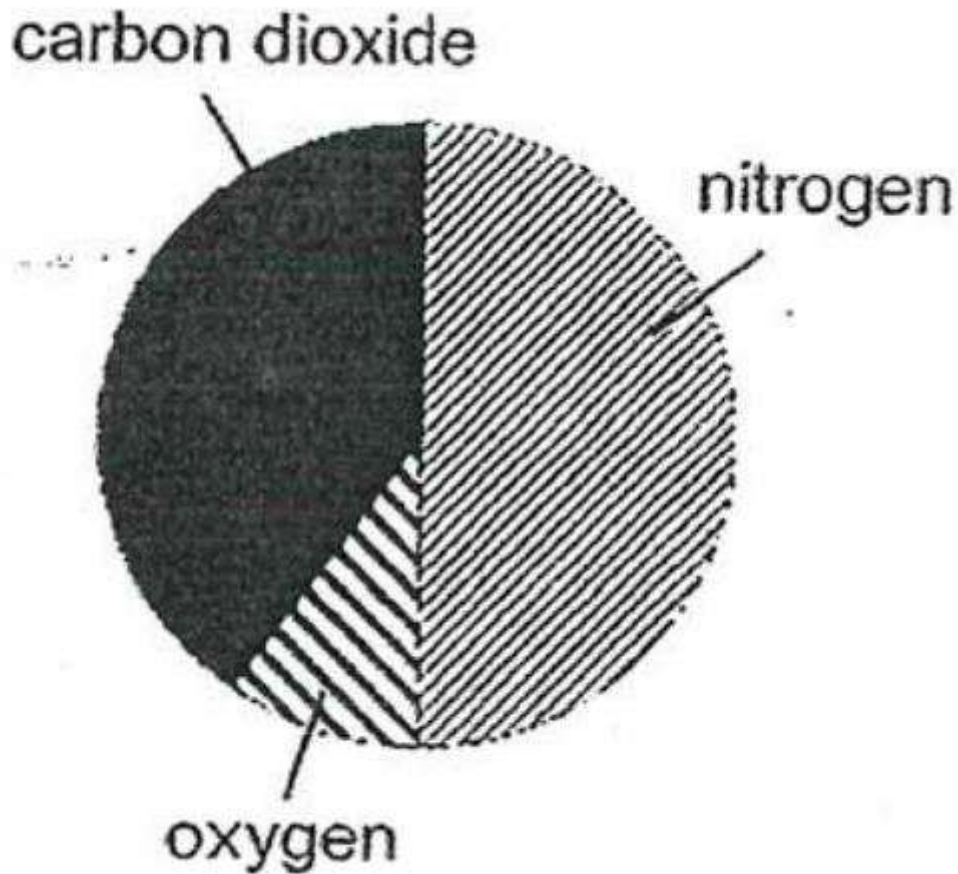
B)



C)

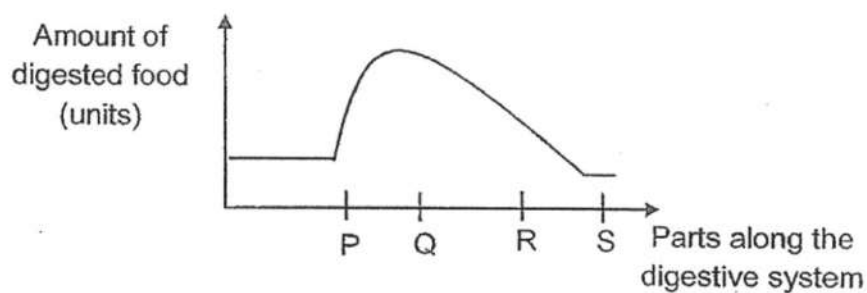


D)


**Question 4 of 31**

Primary 5 Science (Term 1) 2 pts

The graph below shows the amount of digested food in the blood vessels along the various parts of the digestive system.



At which part P, Q, R or S does the amount of digested food in the blood vessels corresponds to blood moving away from the stomach?

- A) P  
 B) Q  
 C) R  
 D) S



**Question 5 of 31**

Primary 5 Science (Term 1) 2 pts

Which of the following statement(s) about the systems in the human body is / are **false**?

- A The circulatory system transports energy around the body.
  - B The gullet allows air to be transported from the nose to the lungs.
  - C The skeletal system works together with the muscular system to allow movement.
  - D Digestive juices can only be found in the stomach, small intestines and large intestines.
- 

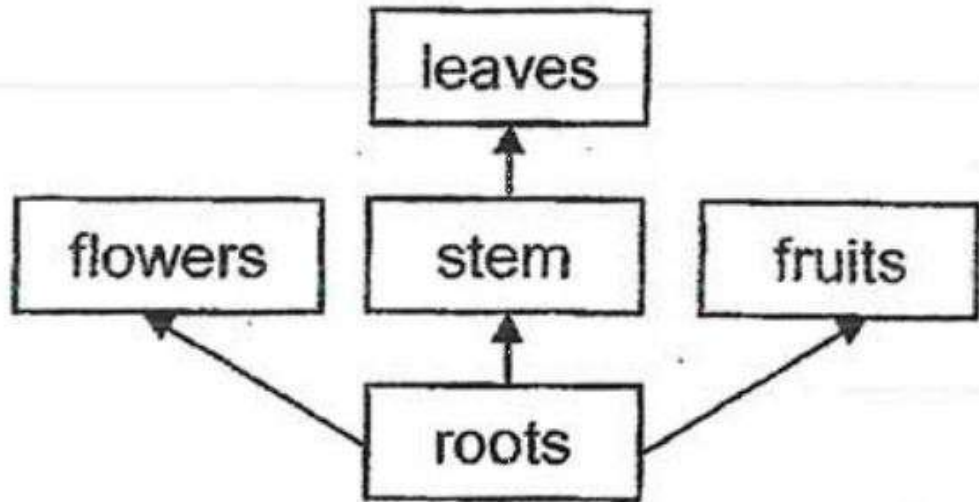
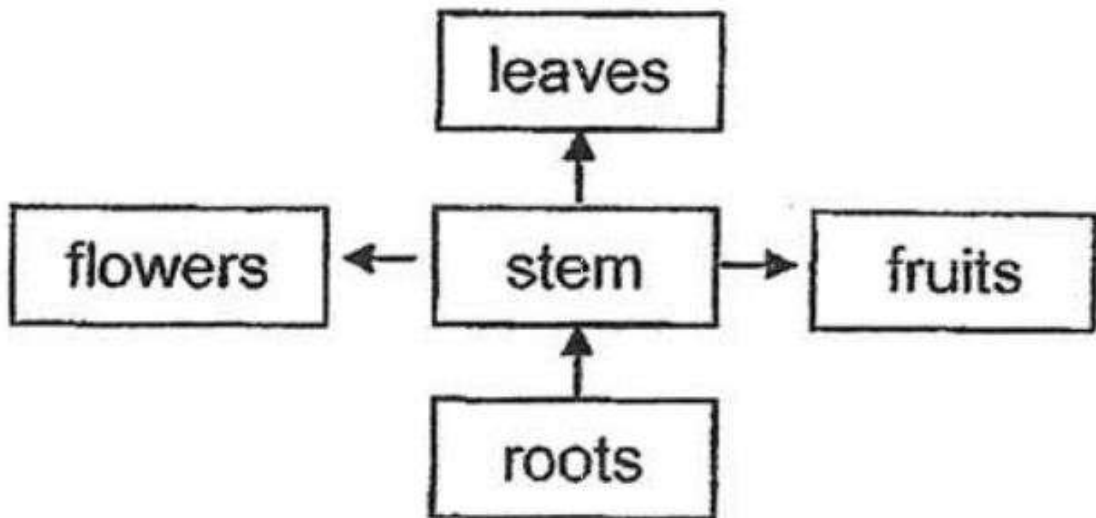
- A) A only
- B) C only
- C) A, B and D only
- D) B, C and D only

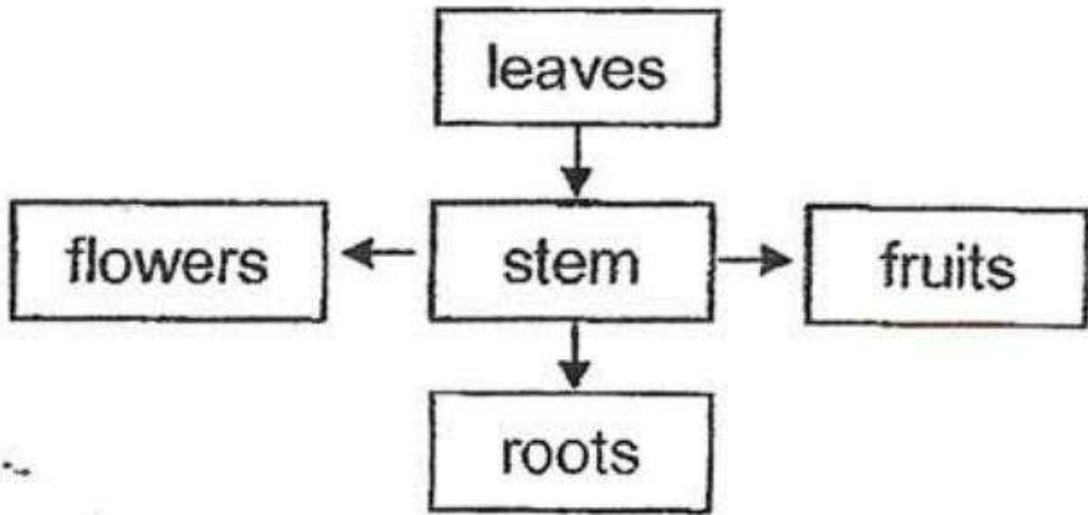
**Question 6 of 31**

Primary 5 Science (Term 1)

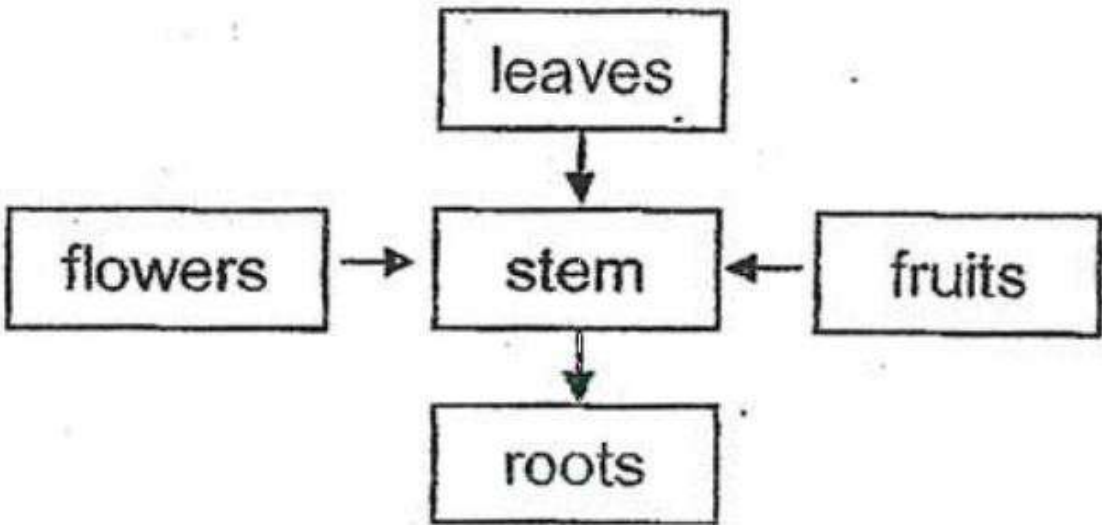
2 pts

Which one of the following diagrams correctly shows the direction of the flow of food in plants?

 A) B) C)



D)

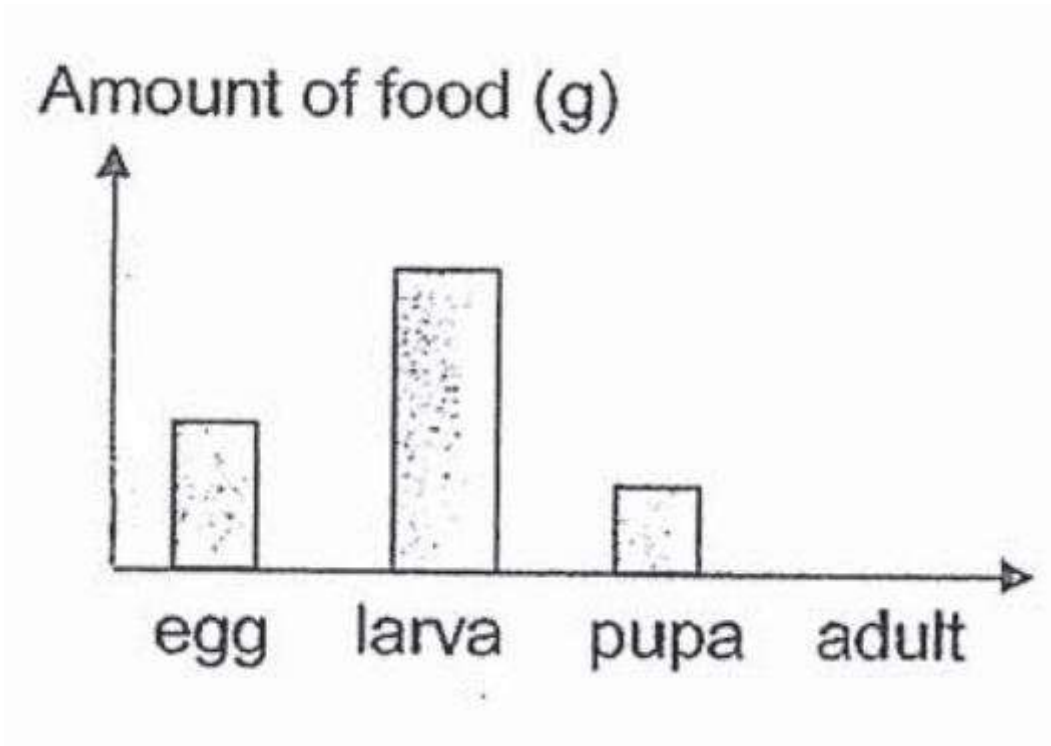
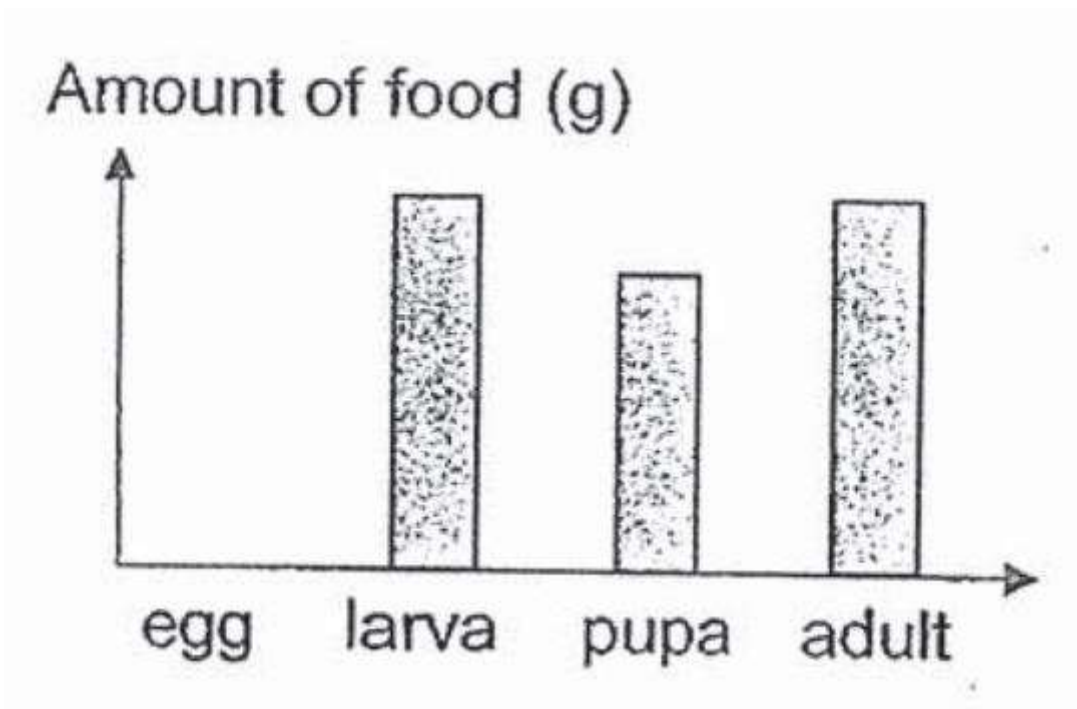


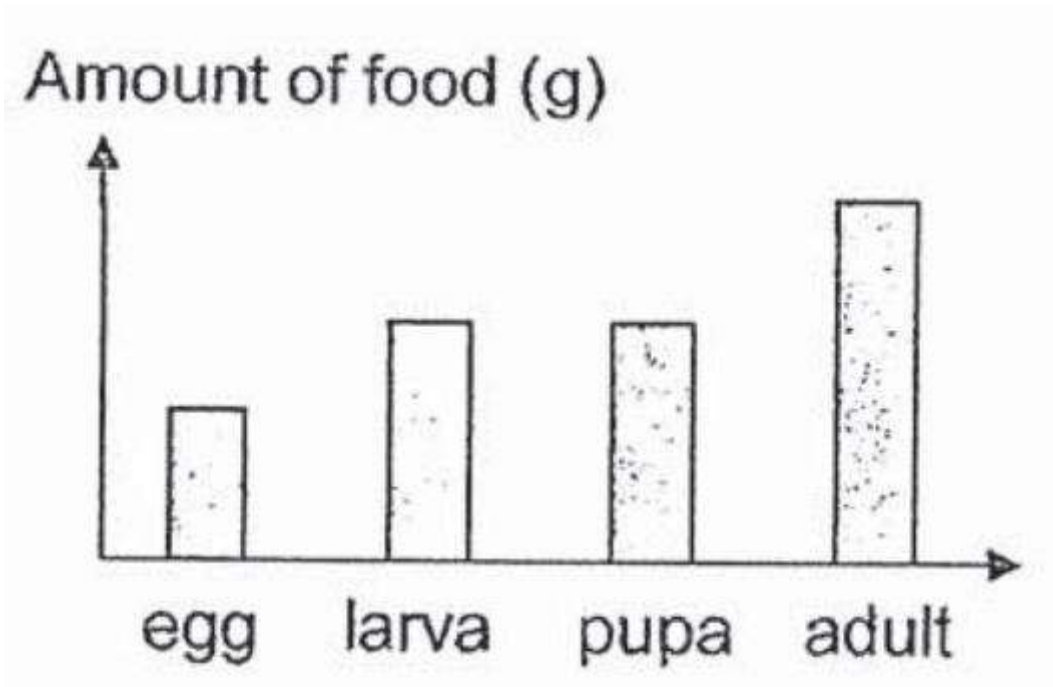


**Question 7 of 31**

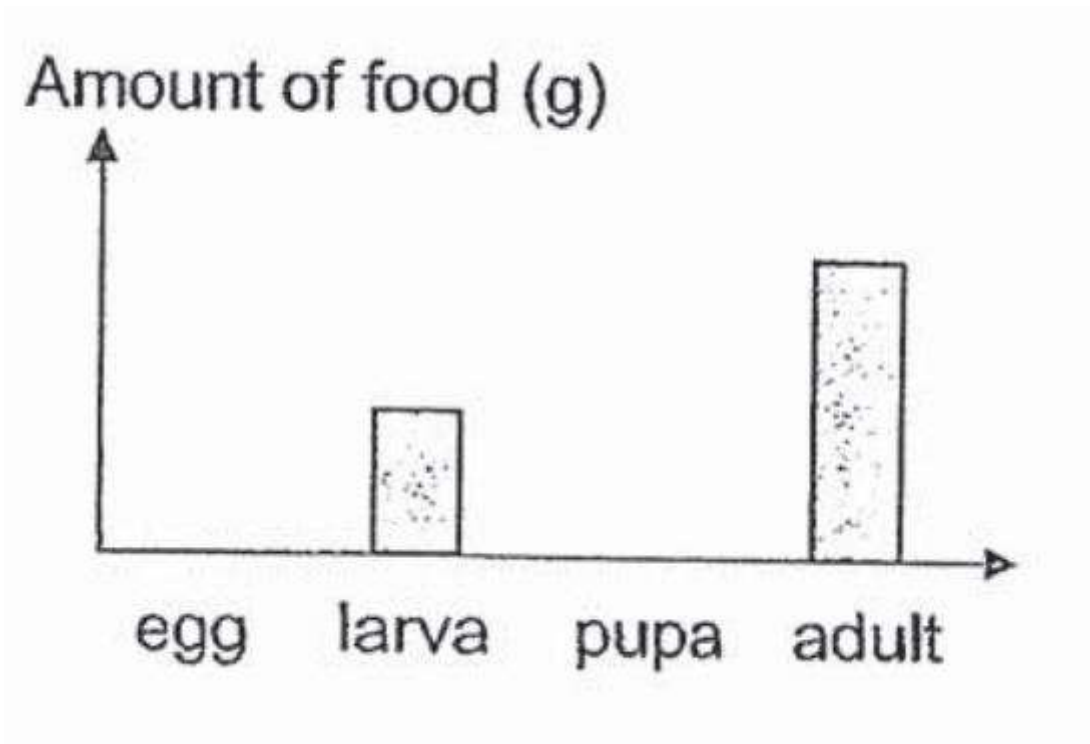
Primary 5 Science (Term 1) 2 pts

Which of the following graphs shows the possible amount of food eaten during the different stages in the life cycle of a butterfly?

 A) B) C)



D)

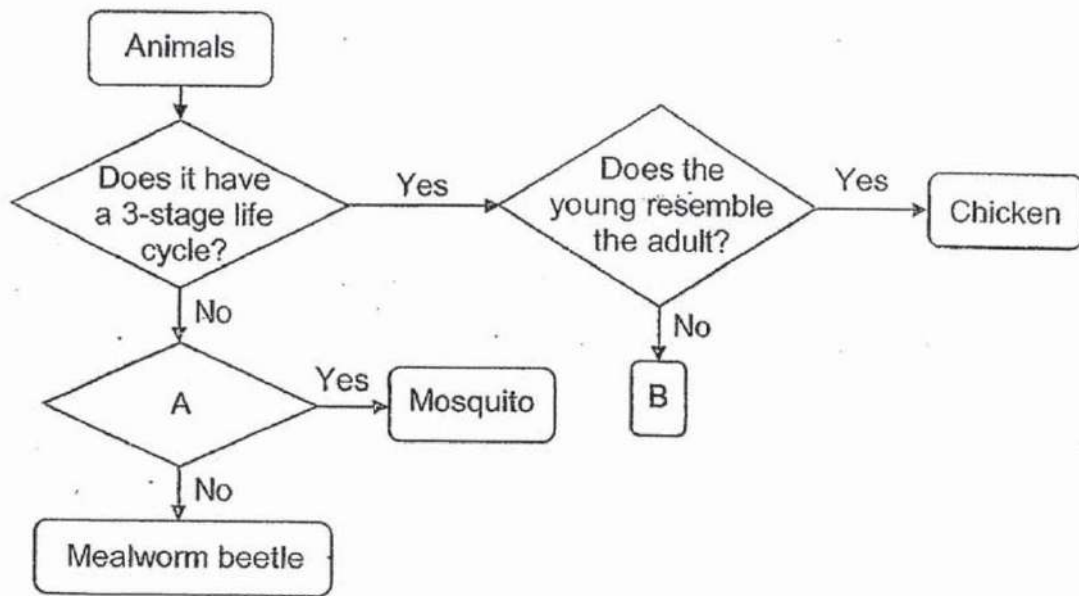


**Question 8 of 31**

Primary 5 Science (Term 1)

2 pts

Study the flow chart below.



Which one of the following best represents A and B?

- A) 

<b>A</b>	<b>B</b>
Does it lay eggs?	Butterfly
- B) 

<b>A</b>	<b>B</b>
Does it have wings?	Fish
- C) 

<b>A</b>	<b>B</b>
Does the young resemble the adult?	Dragonfly
- D) 

<b>A</b>	<b>B</b>
Does it spend part of its life cycle in water?	Frog

**Question 9 of 31**

Primary 5 Science (Term 1) 2 pts

Ravi planted ten seeds in ten similar pots and watered them daily. He started recording the average number of days it took for the plants to reach the various stages as shown in the table below. He noted that the seeds took an average of 10 days to germinate.

Stage	Young plant	Plant with flowers	Plant with fruits
Average number of days to reach stage	10	150	190

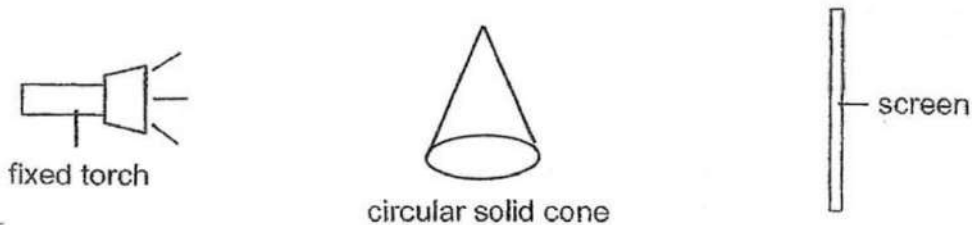
Based on his experiment, which one of the following is true?

- A) It took 50 days for the flowers to develop into fruits.
- B) The plants took 130 days to develop flowers after the seeds had germinated.
- C) The light given to the plants helped them to develop flowers and fruits faster.
- D) The seeds took 180 days to become plants with fruits after the seeds had germinated.

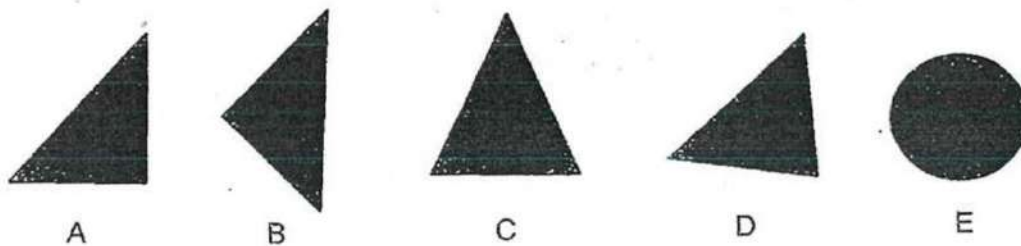
**Question 10 of 31**

Primary 5 Science (Term 1) 2 pts

Study the set-up below.



A shadow was cast on the screen when the torch was shone onto the circular solid cone. The cone was then rotated in various positions and different shadows were formed. Which of the following shadows are possible shadows of the cone?



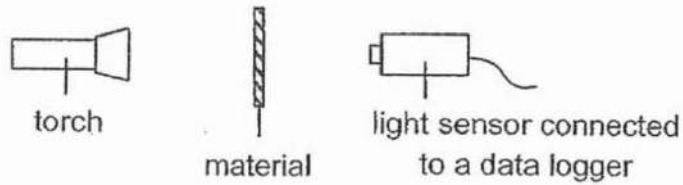
- A) A and E only
- B) B and D only
- C) C and E only
- D) C, D and E only

## Question 11 of 31

Primary 5 Science (Term 1)

2 pts

Study the set-up below. Four different materials A, B, C and D were placed in front of the torch.



The table below shows the amount of light recorded by the data logger.

Material	A	B	C	D
Amount of light (units)	400	0	1500	6000

Which one of the materials A, B, C or D is the most suitable for making a curtain to help keep a room dark?

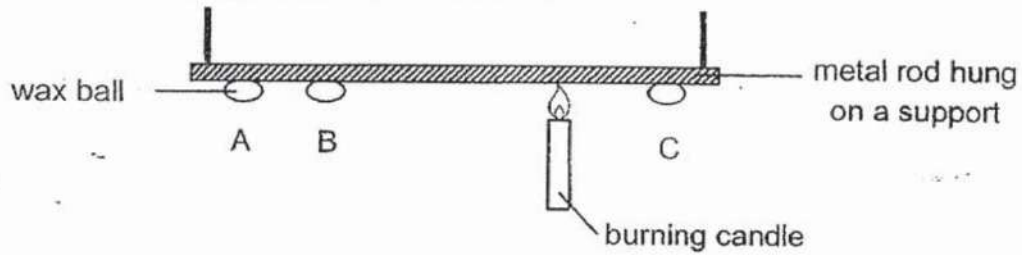
- A) A
- B) B
- C) C
- D) D

## Question 12 of 31

Primary 5 Science (Term 1)

2 pts

Ben conducted an experiment as shown below.



He noticed that the wax balls started to drop off the metal rod after some time. Which one of the following shows the correct order in which the wax balls dropped?

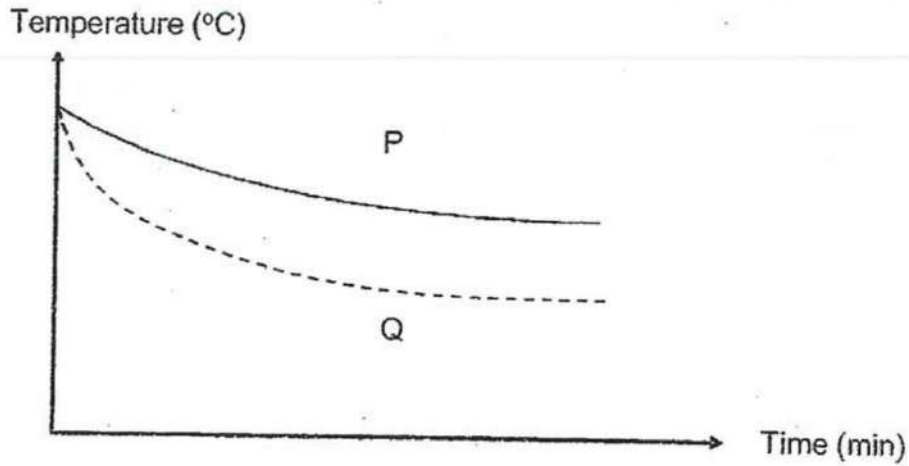
- A)
- | First | Second | Third |
|-------|--------|-------|
| A     | B      | C     |
- B)
- | First | Second | Third |
|-------|--------|-------|
| A     | C      | B     |
- C)
- | First | Second | Third |
|-------|--------|-------|
| C     | B      | A     |
- D)
- | First | Second | Third |
|-------|--------|-------|
| B     | C      | A     |



## Question 13 of 31

Primary 5 Science (Term 1) 2 pts

Two containers P and Q have the same volume but are made from different materials. Both P and Q are filled completely with hot water of the same temperature. The graph below shows the time taken for the water in containers P and Q to cool down.



Which one of the following shows the correct material that containers P and Q are made of?

- A) 

Container P	Container Q
Plastic	Metal
- B) 

Container P	Container Q
Glass	Wood
- C) 

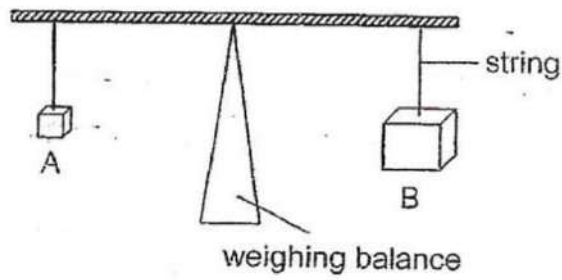
Container P	Container Q
Metal	Plastic
- D) 

Container P	Container Q
Ceramic	Wood

**Question 14 of 31**

Primary 5 Science (Term 1) 2 pts

Limei carried out the following experiment on two objects A and B, made of different materials.



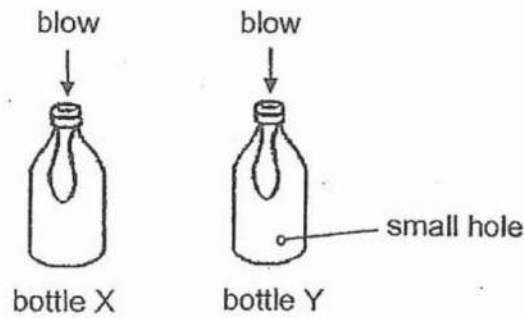
What can be concluded based on the experiment above?

- A) Object A is heavier than object B.
- B) Object B is heavier than object A.
- C) Objects with different volumes can have the same mass.
- D) Objects with different masses can have the same volume.

## Question 15 of 31

Primary 5 Science (Term 1) 2 pts

The diagram below shows two similar bottles X and Y, each with a balloon inserted.



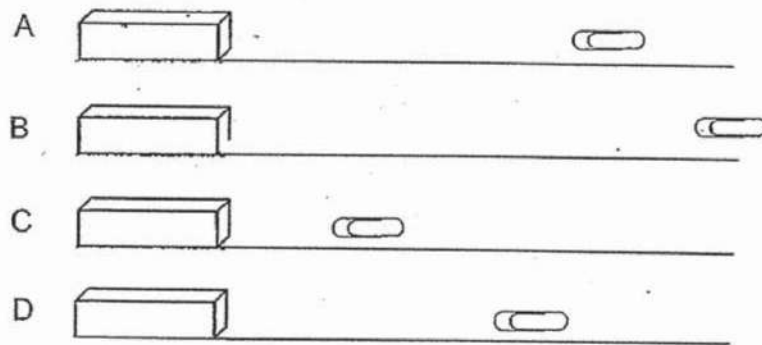
Which one of the following shows the correct observation and its corresponding explanation when Mina blows into the balloons?

- A)
- | Observation                                | Explanation   |
|--|---|
| The balloon in bottle X will inflate more. | Air in bottle X can be compressed to allow more space for the balloon to inflate. |
- B)
- | Observation                                | Explanation  |
|--|--|
| The balloon in bottle X will inflate more. | Air blown into the balloon in X cannot escape as there is no hole in the bottle. |
- C)
- | Observation                                | Explanation   |
|--|---|
| The balloon in bottle Y will inflate more. | Air in bottle Y escapes through the small hole, allowing more space for the balloon to inflate. |
- D)
- | Observation                                | Explanation  |
|--|--|
| The balloon in bottle Y will inflate more. | Air in the balloon in bottle Y escapes through the small hole, allowing more space for the balloon to inflate. |

## Question 16 of 31

Primary 5 Science (Term 1) 2 pts

Henry set up an experiment to investigate the magnetic strength of four magnets A, B, C and D of similar size. The diagram below shows the distance at which each magnet is able to attract the paper clip.



Based on the diagram above, which one of the following shows the arrangement of the magnets in order of magnetic strength, from the greatest to the weakest?

- A) 

Greatest magnetic strength			Weakest magnetic strength
B	D	A	C
- B) 

Greatest magnetic strength			Weakest magnetic strength
C	A	D	B
- C) 

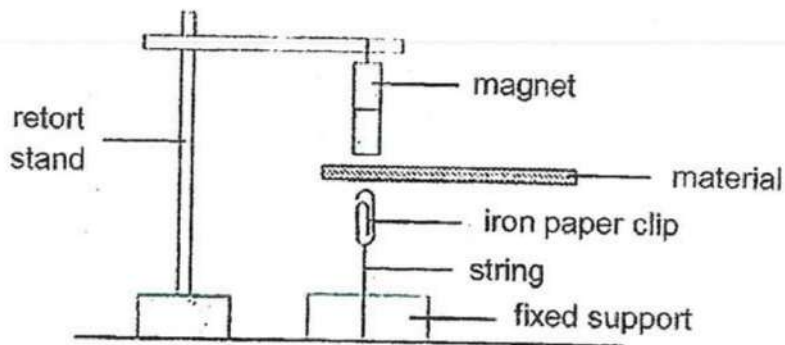
Greatest magnetic strength			Weakest magnetic strength
C	D	A	B
- D) 

Greatest magnetic strength			Weakest magnetic strength
B	A	D	C

## Question 17 of 31

Primary 5 Science (Term 1) 2 pts

Nathan wanted to find out if magnetism can pass through certain materials. He conducted an experiment by placing different materials between the magnet and an iron paper clip as shown below.



The table below shows the different set-ups that Nathan can use.

Set-up	Type of material used	Thickness of material (cm)
K	A	0.5
L	B	1
M	C	0.5
N	A	2

Which of the set-ups shown in the table above should he use to ensure that his experiment is a fair one?

- A) Set-ups K and M only
- B) Set-ups L and N only
- C) Set-ups K and L only
- D) Set-ups M and N only

**Question 18 of 31**

Primary 5 Science (Term 1)

2 pts

Thiru wanted to investigate if the number of times a magnet was dropped from a certain height would affect the mass of iron filings it could attract.

Which one of the following correctly shows the variables that he should keep constant?

 A)

<b>Variable</b>	<b>Kept constant</b>
No. of times the magnet is dropped	✓
Type of magnet	✓
Mass of iron filings	✓
Height from which the magnet is dropped	✓

 B)



Variable	Kept constant
No. of times the magnet is dropped	
Type of magnet	✓
Mass of iron filings	✓
Height from which the magnet is dropped	✓

C)

Variable	Kept constant
No. of times the magnet is dropped	
Type of magnet	✓
Mass of iron filings	
Height from which the magnet is dropped	✓

D)

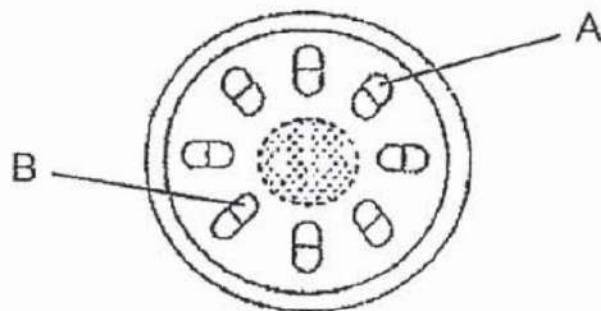
Variable	Kept constant
No. of times the magnet is dropped	✓
Type of magnet	✓
Mass of iron filings	
Height from which the magnet is dropped	✓

Question 19 of 31

Primary 5 Science (Term 1)

0.5 pts

The diagram below shows the cross-section of a plant stem.



Name the parts labelled A and B as shown in the diagram above.

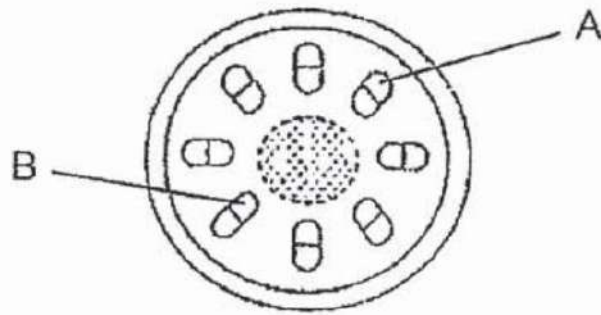
Part A: \_\_\_\_\_

---

**Question 20 of 31**

Primary 5 Science (Term 1) 0.5 pts

The diagram below shows the cross-section of a plant stem.

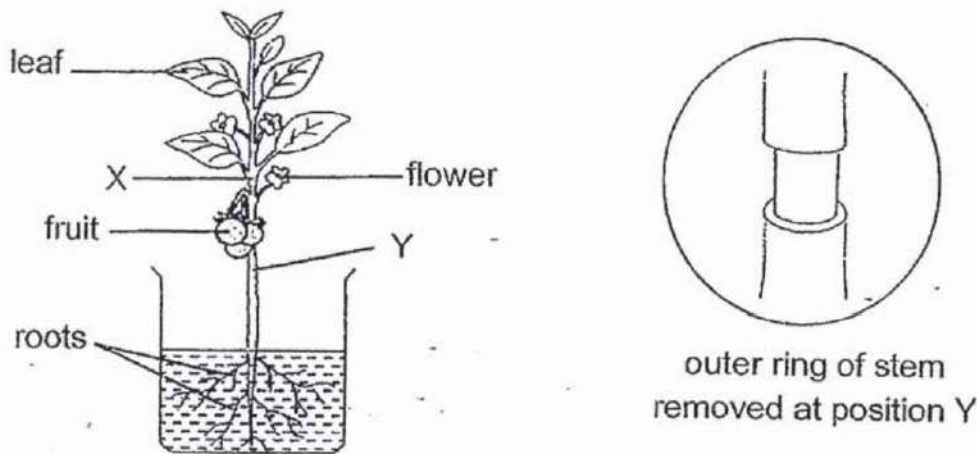


Part B: \_\_\_\_\_

**Question 21 of 31**

Primary 5 Science (Term 1) 0 pts

Patrick placed a plant in a container of red-coloured water as shown in the diagram below. The outer ring of the stem was removed at position Y. After some time, he noticed that the size of the fruits increased.



If Patrick had removed the same amount of outer ring of the stem at position X instead of position Y, would he be able to make the same observation about the size of the fruits as before? Explain why. (1 1/2 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.*

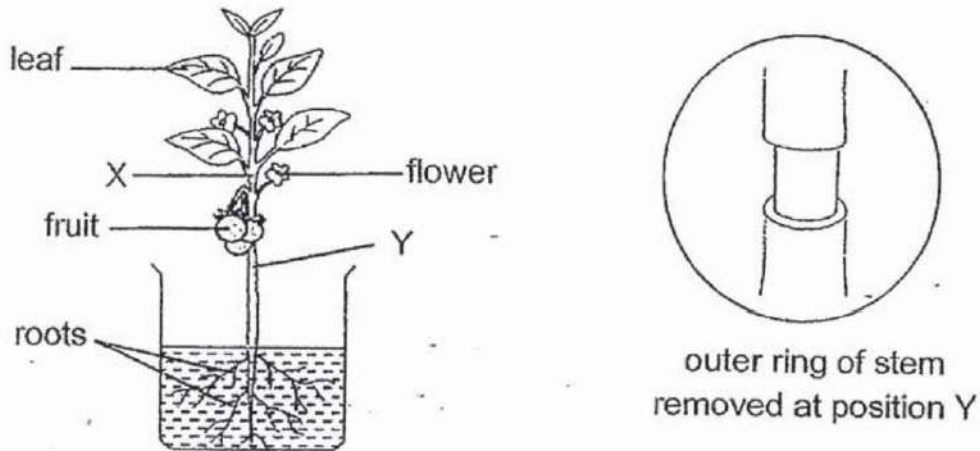
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

**Question 22 of 31**

Primary 5 Science (Term 1)

0 pts

Patrick placed a plant in a container of red-coloured water as shown in the diagram below. The outer ring of the stem was removed at position Y. After some time, he noticed that the size of the fruits increased.



What would Patrick observe about the leaves at the same time? (1/2 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.*

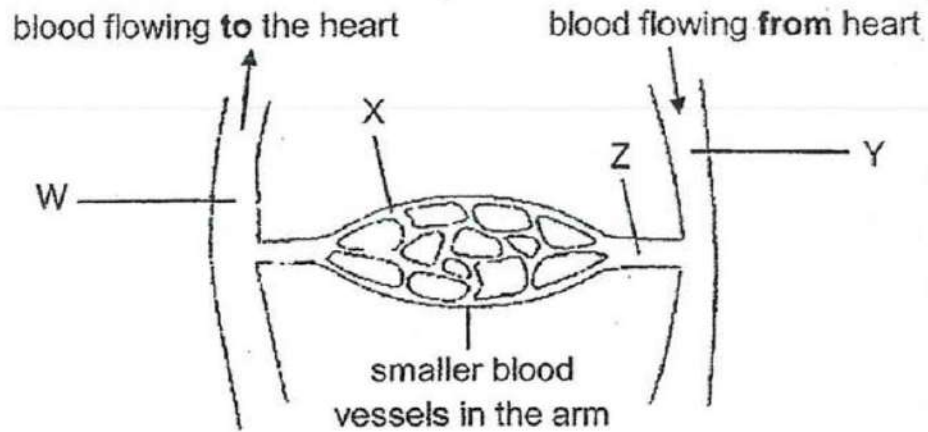
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

**Question 23 of 31**

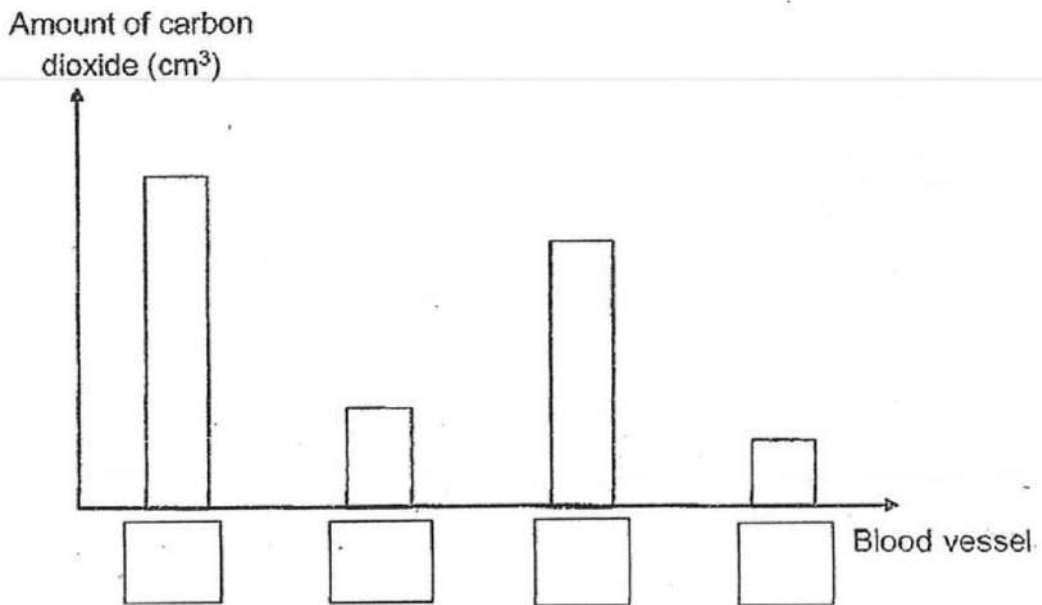
Primary 5 Science (Term 1)

2 pts

The diagram below shows the blood vessels in a human arm.



Blood samples W, X, Y and Z were taken from different blood vessels in the arm. Complete the graph below by labelling the bars with the blood samples W, X, Y or Z to show the correct amount of carbon dioxide in them. [2]

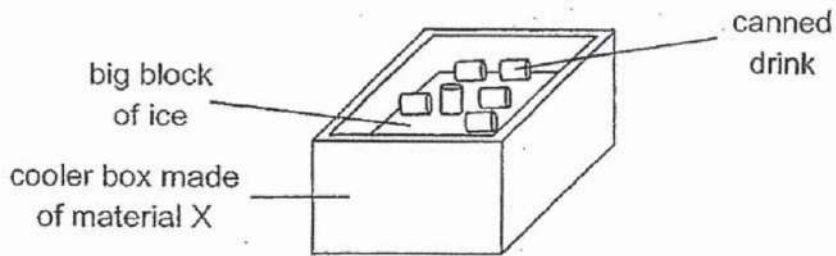




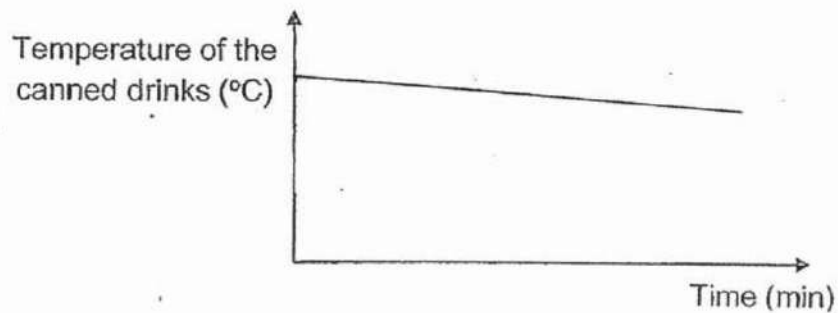
**Question 24 of 31**

Primary 5 Science (Term 1) 0 pts

Ken placed some canned drinks on top of a big block of ice in a cooler box made from material X as shown in the diagram below.



The graph below shows how the average temperature of the canned drinks change over a period of time.



Draw a line in the graph above to show how the temperature of the canned drinks would change if he had used crushed ice of the same volume instead of a big block of ice to cool his drinks. (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.*

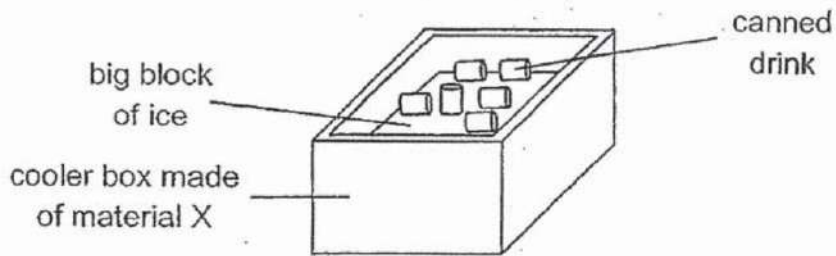
*Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.*

**Question 25 of 31**

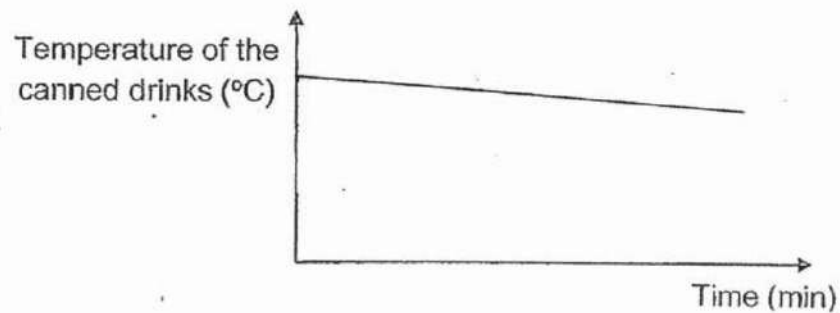
Primary 5 Science (Term 1)

0 pts

Ken placed some canned drinks on top of a big block of ice in a cooler box made from material X as shown in the diagram below.



The graph below shows how the average temperature of the canned drinks change over a period of time.



Give a reason for your graph in the previous question. (1 mark)

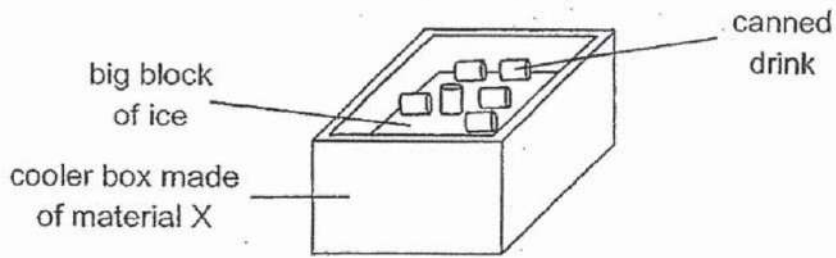
*This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.*

*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.*

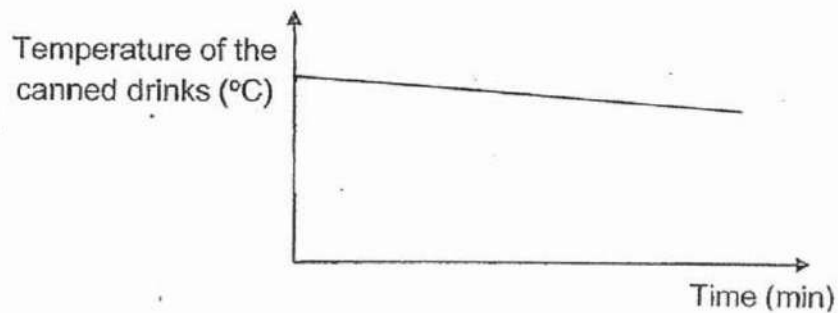
**Question 26 of 31**

Primary 5 Science (Term 1) 1 pt

Ken placed some canned drinks on top of a big block of ice in a cooler box made from material X as shown in the diagram below.



The graph below shows how the average temperature of the canned drinks change over a period of time.

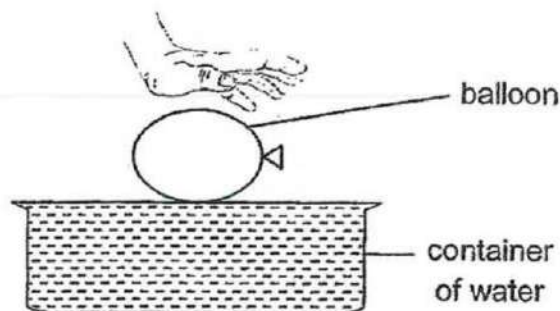


State a property of material X that makes it suitable for making the cooler box to keep the canned drinks cold for a longer period of time. (1 mark)

**Question 27 of 31**

Primary 5 Science (Term 1) 1 pt

Look at the diagram below.



When the inflated balloon was gently pushed into the container, some water spilled out of the container.

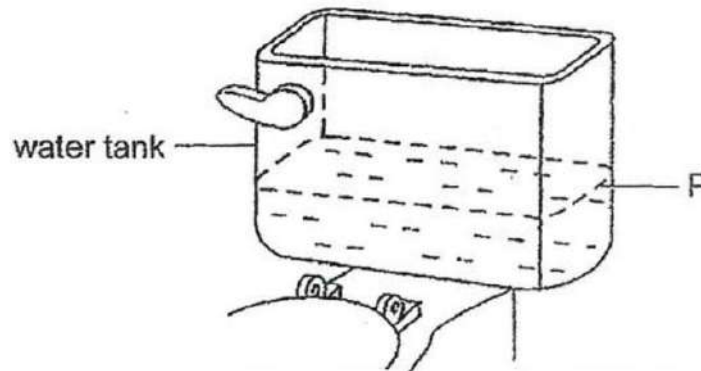
Which property of matter is demonstrated in the experiment above? (1 mark)

**Question 28 of 31**

Primary 5 Science (Term 1)

0 pts

The diagram below shows part of a water tank used to provide water for flushing a toilet.



After each flush, water enters to fill the tank until the water level reaches P. Would the amount of water needed to refill the tank to the level at P be 'lesser', 'greater' or 'the same as before' if a bag of stones is now placed in the water tank? 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.*

**Question 29 of 31**

Primary 5 Science (Term 1) 0 pts

Kenny carried out an experiment with some metal rods and a bar magnet. He brought the bar magnet near each metal rod and observed what happened. The table below shows his observations.

Metals attracted to the magnet	Metals not attracted to the magnet
nickel steel iron	copper aluminium silver

What is the aim of Kenny's experiment? (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 30 of 31**

Primary 5 Science (Term 1) 1 pt

Kenny carried out an experiment with some metal rods and a bar magnet. He brought the bar magnet near each metal rod and observed what happened. The table below shows his observations.

Metals attracted to the magnet	Metals not attracted to the magnet
nickel steel iron	copper aluminium silver

State two variables that Kenny should keep constant for his experiment to be a fair one.

Variable 1: \_\_\_\_\_

---

**Question 31 of 31**

Primary 5 Science (Term 1)

1 pt

Kenny carried out an experiment with some metal rods and a bar magnet. He brought the bar magnet near each metal rod and observed what happened. The table below shows his observations.

<b>Metals attracted to the magnet</b>	<b>Metals not attracted to the magnet</b>
nickel steel iron	copper aluminium silver

Variable 2: \_\_\_\_\_  

---