

Test: (2020) Primary 5 Science (Term 4) - St Nicholas

Points: 66 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 64

Primary 5 Science (Term 4) 2 pts

For each question, four options are given. One of them is the correct answer.

Study the classification chart and the three animals below.



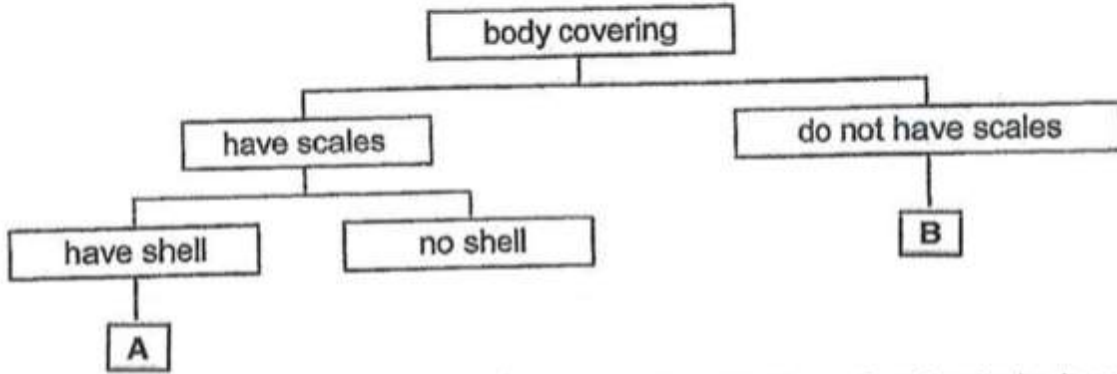
frog



turtle



crocodile



Which of the following shows the correct classification of animals in boxes A and B?

	A	B
(1)	crocodile	turtle
(2)	crocodile	frog
(3)	frog	crocodile
(4)	turtle	frog

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

Question 2 of 64

Primary 5 Science (Term 4) 2 pts

Which statement is correct about bacteria and moulds?

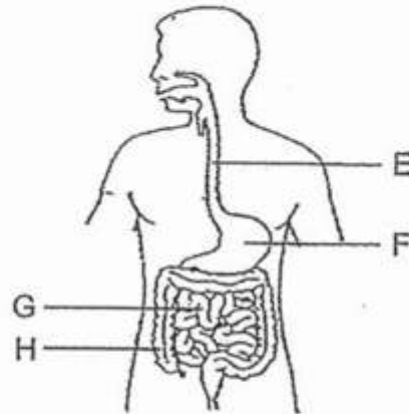
- A) Both are fungi
- B) Both reproduce from spores
- C) Both can cause food to turn bad
- D) Both are multicellular organisms

Question 3 of 64

Primary 5 Science (Term 4)

2 pts

The diagram below shows parts of the human digestive system.



Based on the diagram above, which of the following statements are true?

- A Part E takes air into the lungs.
- B Part G contains digestive juice.
- C Part H is where water is being absorbed into the body.
- D Part F is where food is digested and absorbed into the body:

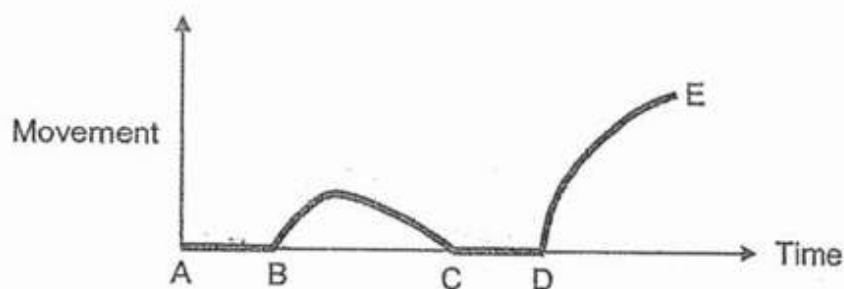
- A) A and B only
- B) B and C only
- C) C and D only
- D) B, C and D only

Question 4 of 64

Primary 5 Science (Term 4)

2 pts

The graph below shows how active an insect is during the different stages in its 4-stage life cycle.



What stage of the life cycle does part BC represent?

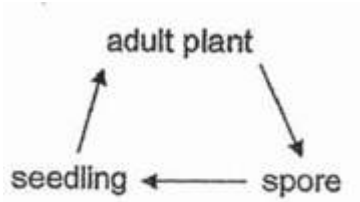
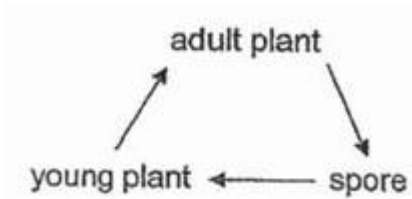
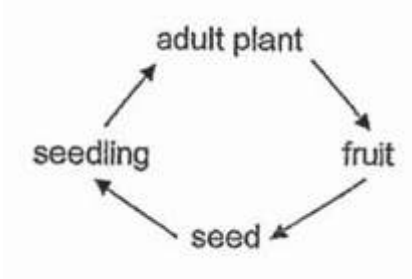
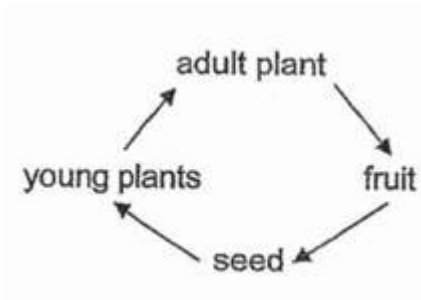
- A) egg
- B) pupa
- C) larva
- D) adult

Question 5 of 64

Primary 5 Science (Term 4)

2 pts

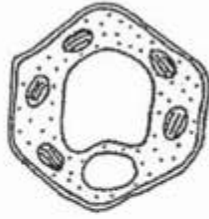
Which of the following best represents the life cycle of the bird's nest fern?

 A) B) C) D)

Question 6 of 64

Primary 5 Science (Term 4) 2 pts

Siva observed the cell below with a microscope and concluded that it was a plant cell.



Which characteristics of the cell helped Siva to conclude that it was a plant cell?

- A It has a nucleus.
- B It has a cell wall.
- C It has chloroplasts.
- D It has a cell membrane.

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

Question 7 of 64

Primary 5 Science (Term 4) 2 pts

Which of the following controls most of the activities within the cell?

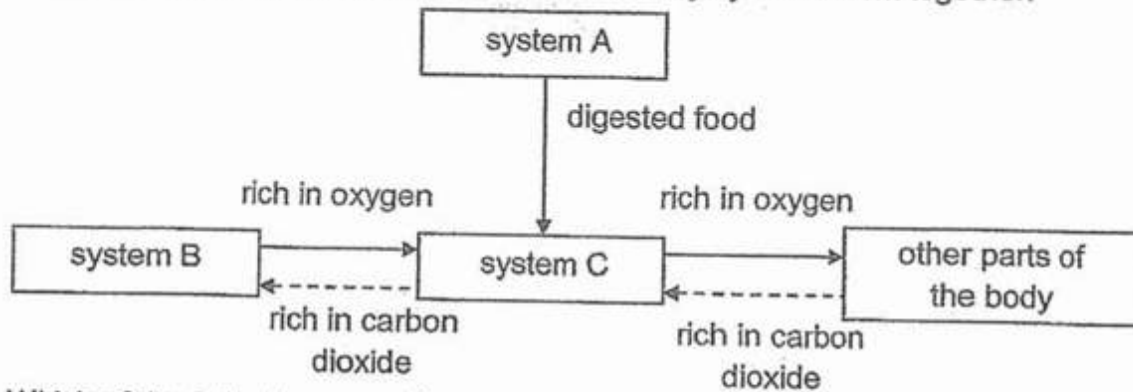
-
- A) Nucleus
 - B) Cell Wall
 - C) Cytoplasm
 - D) Cell membrane

Question 8 of 64

Primary 5 Science (Term 4)

2 pts

The chart below shows how different human body systems work together.



Which of the following correctly represents systems A, B and C?

	system A	system B	system C
(1)	digestive	respiratory	circulatory
(2)	respiratory	circulatory	digestive
(3)	circulatory	digestive	respiratory
(4)	digestive	circulatory	respiratory

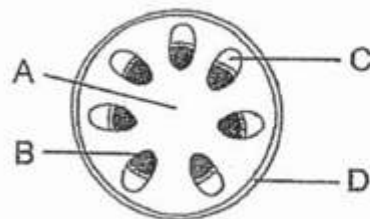
- A) 1
- B) 2
- C) 3
- D) 4

Question 9 of 64

Primary 5 Science (Term 4)

2 pts

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



Which part A, B, C or D transports food to other parts of the plant?

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

Question 10 of 64

Primary 5 Science (Term 4) 2 pts

Which of the following characteristics help to identify flowers which are insect-pollinated?

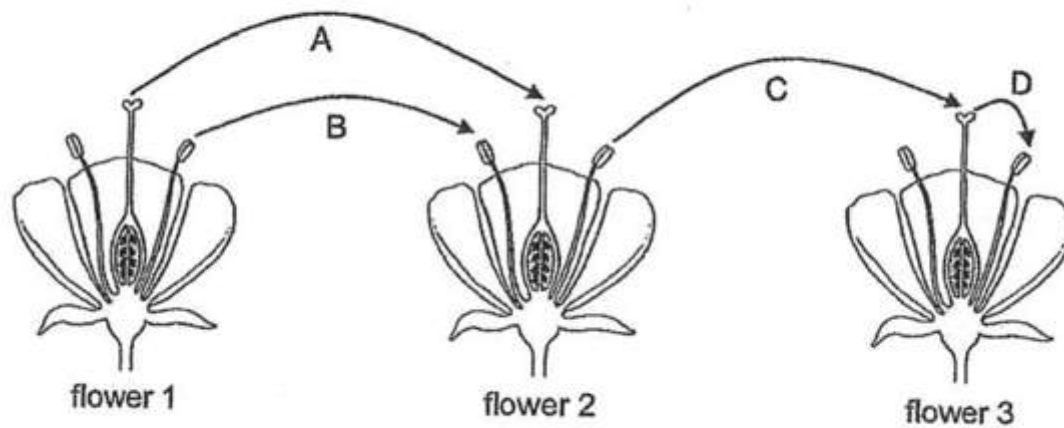
- A Nectar is present and Fragrant
- B Stigmas are long and feathery
- C Petals are large and brightly-coloured
- D Long filaments with anthers sticking out of the flowers

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

Question 11 of 64

Primary 5 Science (Term 4) 2 pts

The diagram below shows three similar flowers from the same plant. The arrows show the movement of pollen grains.



Which arrow(s) correctly show(s) the process of pollination?

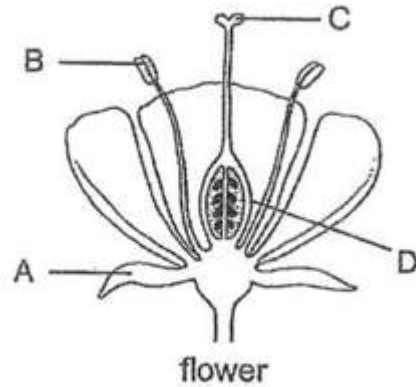
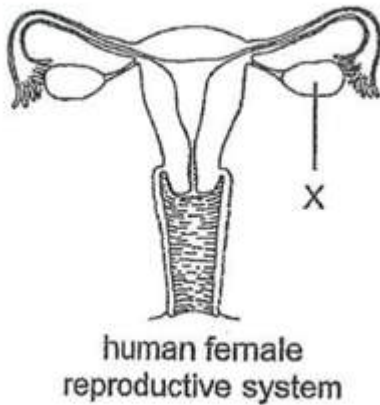
- A) C only
- B) D only
- C) A and C only
- D) B and D only

Question 12 of 64

Primary 5 Science (Term 4)

2 pts

Study the diagram below.



Which part of the flower has a similar function as part X?

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

Question 13 of 64

Primary 5 Science (Term 4)

2 pts

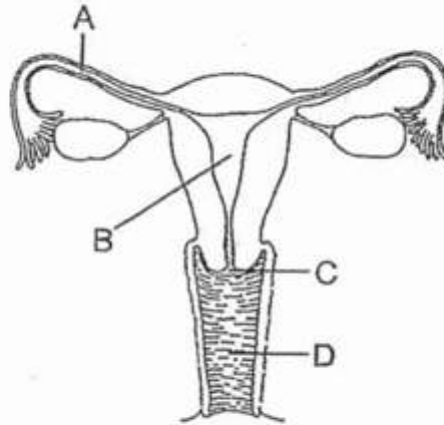
Which one of the following statements about human reproduction is true?

- A) Female egg cells can swim
- B) Human reproduction ensures the continuity of future generations
- C) The average duration of a typical pregnancy is about one full year
- D) A few sperms will be able to successfully fertilise one female egg cell

Question 14 of 64

Primary 5 Science (Term 4) 2 pts

The diagram below shows the human female reproductive system.



A woman underwent surgery to remove a part of her reproductive system due to a medical condition. Which was the part that was removed which prevented a fertilised egg from developing into a foetus?

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

Question 15 of 64

Primary 5 Science (Term 4) 2 pts

A container containing three powders X, Y and Z are mixed. These powders do not dissolve in water. The properties of the three powders are given in the table below.

Powder	Property A	Property B	Property C
	Magnetic material	Sink in water	Good conductor of heat
X	yes	no	yes
Y	no	yes	yes
Z	no	no	no

Which property/properties should we make use of in order to separate the three powders?

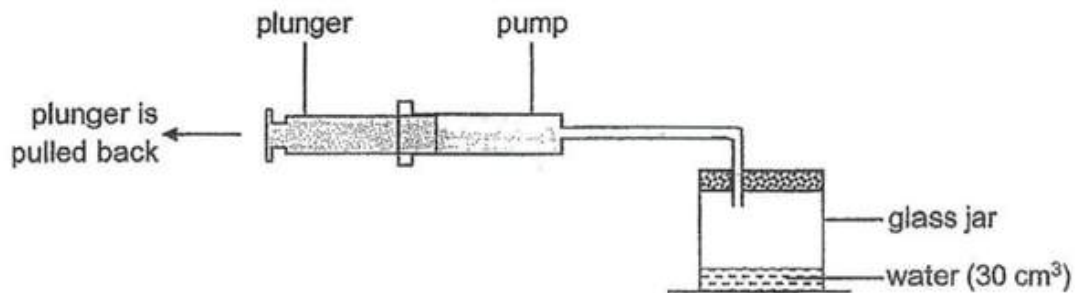
- A) A only
- B) B only
- C) A and B only
- D) B and C only

Question 16 of 64

Primary 5 Science (Term 4)

2 pts

The diagram shows a pump which is connected to a glass jar. The volume of the glass jar is 300 cm^3 and it contains 30 cm^3 of water.



Each time the plunger of the pump is pulled back completely, 20 cm^3 of air would be drawn out of the glass jar.

Which of the following shows the correct volume of air and water in the glass jar after the plunger is pulled back completely once?

	Volume of air (cm^3)	Volume of water (cm^3)
(1)	300	30
(2)	300	10
(3)	270	30
(4)	270	50

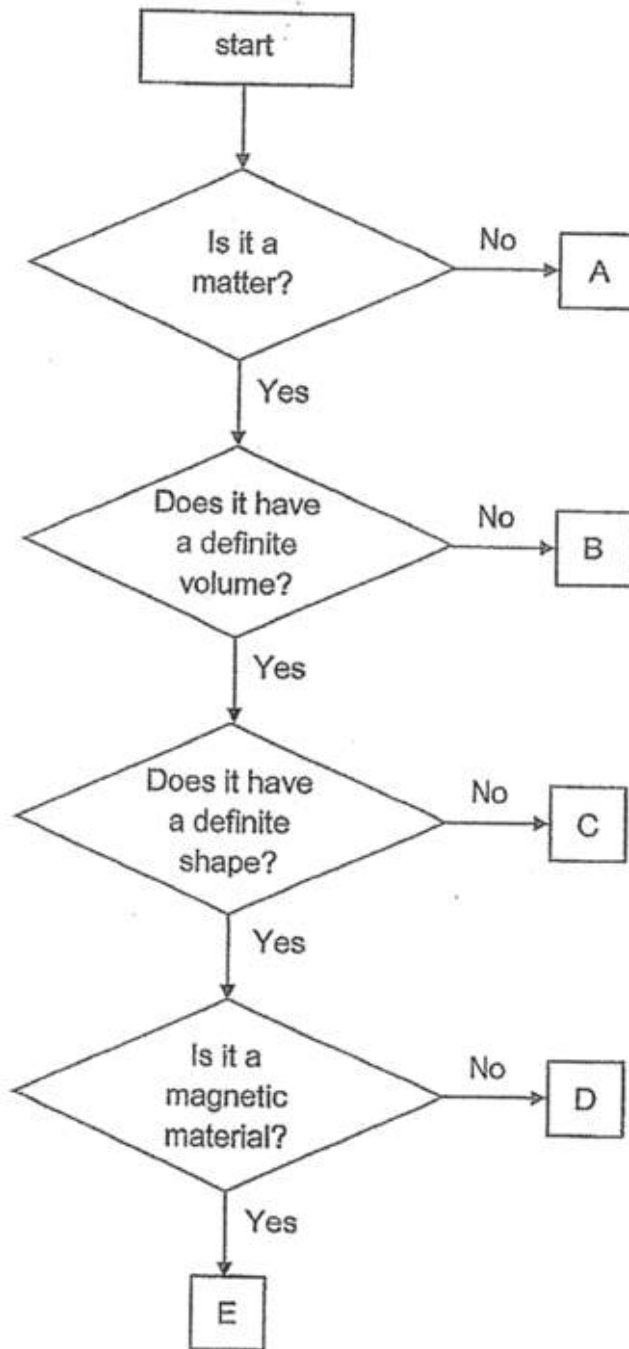
- A) 1
 B) 2
 C) 3
 D) 4

Question 17 of 64

Primary 5 Science (Term 4)

2 pts

Study the flow chart below.



Which of the letters correctly represent a copper rod, oil and heat?

	Copper rod	Oil	Heat
(1)	C	D	B
(2)	D	C	A
(3)	D	B	C
(4)	E	C	A

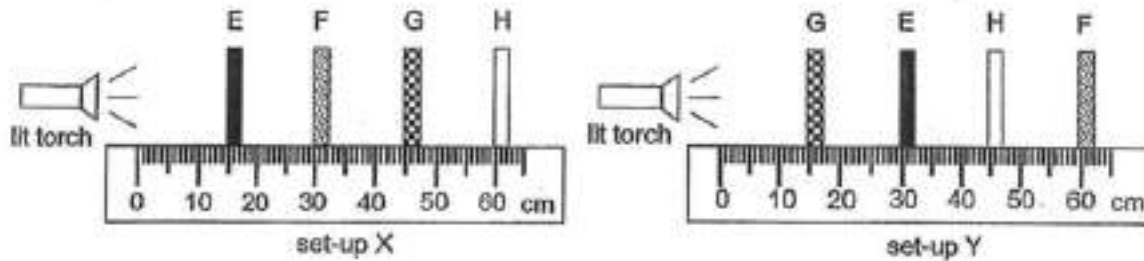
- A) 1
 B) 2
 C) 3

D) 4

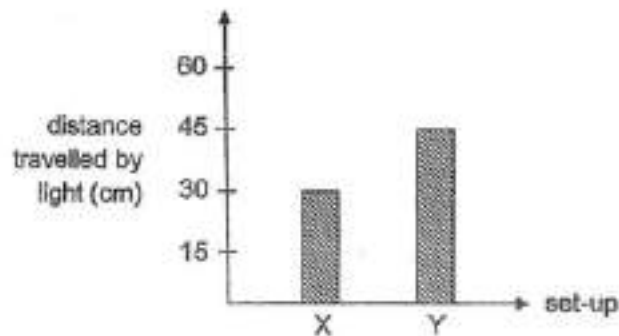
Question 18 of 64

Primary 5 Science (Term 4) 2 pts

Aishah conducted an experiment to find out if light can pass through four different materials E, F, G and H. The materials were arranged in two set-ups X and Y as shown below.



The distance travelled by the light in each set-up was measured and shown in the graph below.



Based on the results given, which of the following statements are correct?

- A Material E allows light to pass through.
- B Material G does not allow any light to pass through.
- C Materials F and H do not allow any light to pass through.

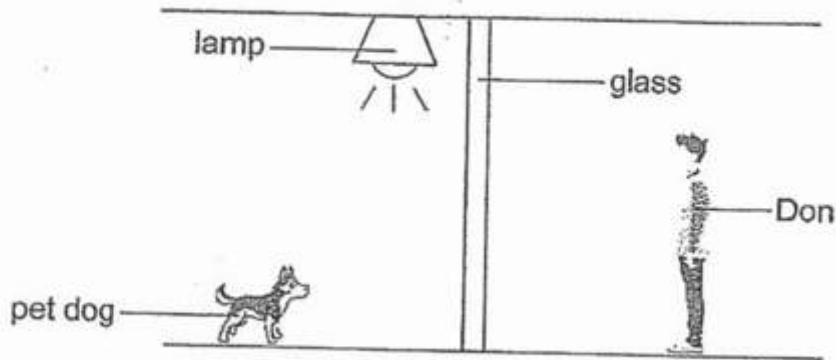
- A) A and B only
- B) A and C only
- C) B and C only
- D) A,B and C

Question 19 of 64

Primary 5 Science (Term 4)

2 pts

Don could see his pet dog when he stood behind the glass.



Which one of the following explains why Don could see his pet dog?

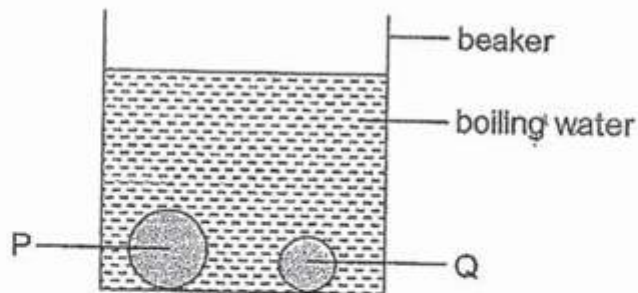
- A) The glass reflected light from the lamp into Don's eyes
- B) Light from the lamp passed through the glass and entered Don's eyes
- C) The pet dog gave off light and light entered Don's eyes through the glass
- D) The pet dog reflected light from the lamp and light entered Don's eyes through the glass

Question 20 of 64

Primary 5 Science (Term 4)

2 pts

Two steel balls P and Q of different masses were put into a beaker of boiling water at the same time.



Which of the following statements about the steel balls are correct after five minutes?

- A Q is hotter than P.
- B P has more heat than Q.
- C Q is a better conductor of heat than P..
- D Both P and Q have the same temperature.

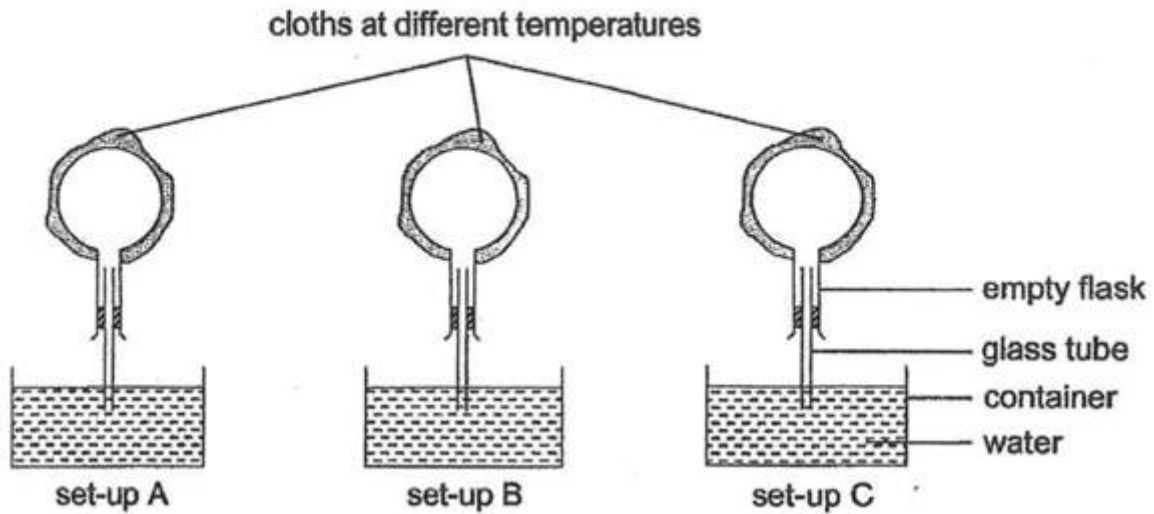
- A) A and B only
- B) B and D only
- C) A,C and D only
- D) B,C and D only

Question 21 of 64

Primary 5 Science (Term 4)

2 pts

Hassan conducted an experiment as shown below.



He recorded his observations in the table below.

Set-up A	Water rose up the glass tube.
Set-up B	No changes were observed.
Set-up C	Bubbles were observed in the water in the container.

Which of the following correctly shows the temperature of the cloth used to wrap the flask in each set-up?

	Set-up A	Set-up B	Set-up C
(1)	5 °C	90 °C	room temperature
(2)	5 °C	room temperature	90 °C
(3)	room temperature	5 °C	90 °C
(4)	90 °C	room temperature	5 °C

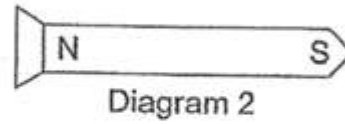
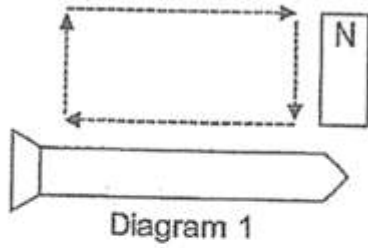
- A) 1
 B) 2
 C) 3
 D) 4

Question 22 of 64

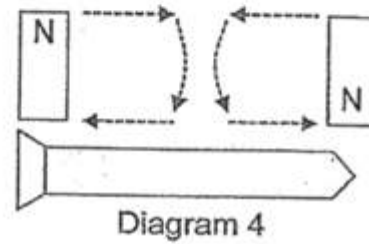
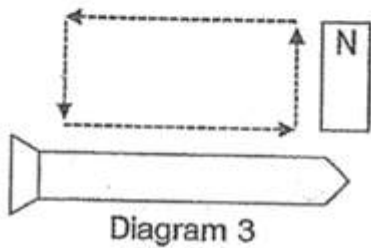
Primary 5 Science (Term 4)

2 pts

John magnetised a nail using a bar magnet as shown in Diagram 1. Diagram 2 shows the poles of the magnetised nail.



He magnetised two more nails as shown in Diagrams 3 and 4.



Which of the following shows the magnetic poles of the magnetised nails in Diagrams 3 and 4?

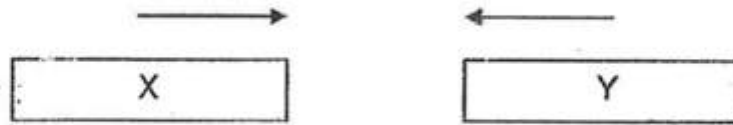
	Diagram 3	Diagram 4
(1)		
(2)		
(3)		
(4)		

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

Question 23 of 64

Primary 5 Science (Term 4) 2 pts

When two objects X and Y were brought near each other, they moved in the directions indicated by the arrows as shown.



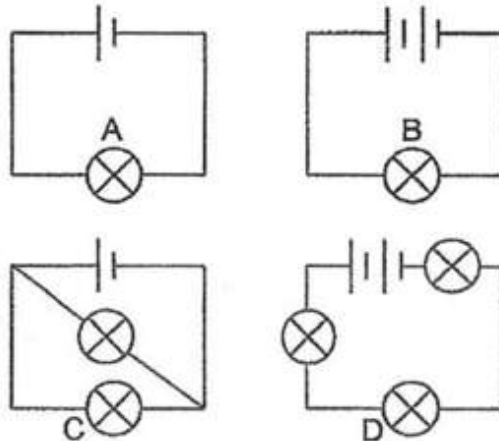
From the observation above, which one of the following statements about objects X and Y is definitely correct?

- A) Both are magnets
- B) Both are made of iron
- C) One of the objects is a magnet
- D) Their like poles are facing each other

Question 24 of 64

Primary 5 Science (Term 4) 2 pts

Study the circuits below. All bulbs are identical and in good working condition.



Which of the following shows the correct comparison for the brightness of the bulbs?

	brightest	→	dimmest
(1)	B		D
(2)	B		C
(3)	D		B
(4)	D		C

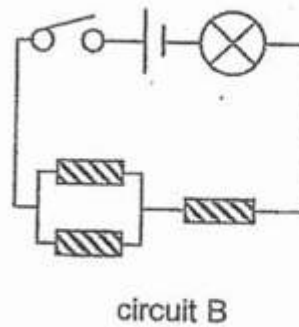
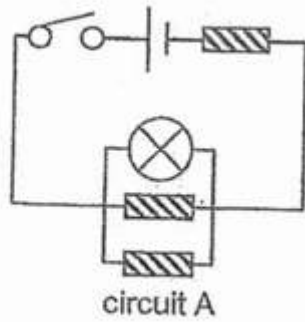
- A) 1
- B) 2
- C) 3
- D) 4

Question 25 of 64

Primary 5 Science (Term 4)

2 pts

Each of the circuits below has a copper rod, a wooden rod and a plastic rod.



In which of the above circuit(s) would it be possible for the bulb(s) to light up?

- A) A only
- B) B only
- C) A and B only
- D) None of the circuits

Question 26 of 64

Primary 5 Science (Term 4)

2 pts

Substance X is a liquid at 40 °C and a gas at 300 °C. Which of the following is true about substance X?

	Melting point of X (°C)	Boiling point of X (°C)
(1)	50	200
(2)	50	400
(3)	30	200
(4)	30	400

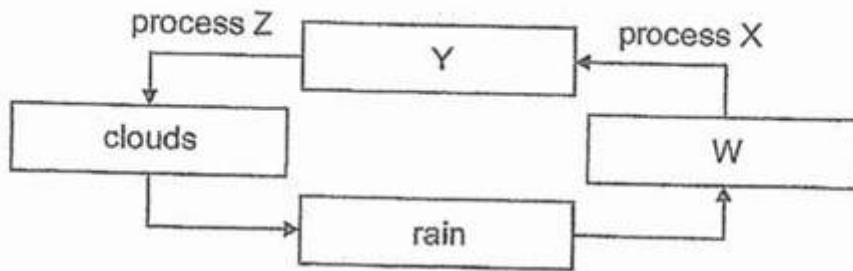
- A) 1
- B) 2
- C) 3
- D) 4

Question 27 of 64

Primary 5 Science (Term 4)

2 pts

The diagram below shows the water cycle.



What are substances W and Y and processes X and Z?

	W	Y	process X	process Z
(1)	water vapour	water bodies	condensation	evaporation
(2)	water bodies	water vapour	evaporation	condensation
(3)	water vapour	water vapour	condensation	evaporation
(4)	water bodies	water bodies	evaporation	condensation

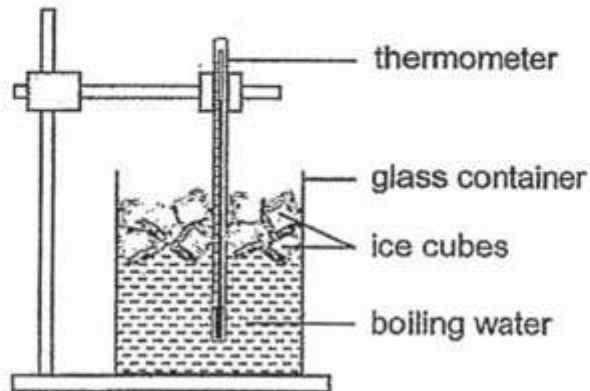
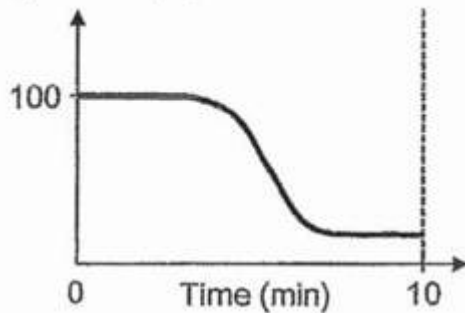
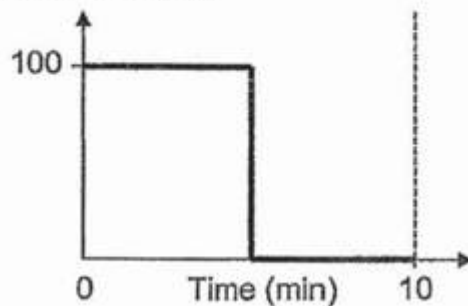
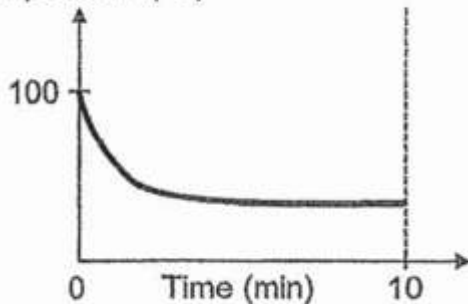
- A) 1
 B) 2
 C) 3
 D) 4

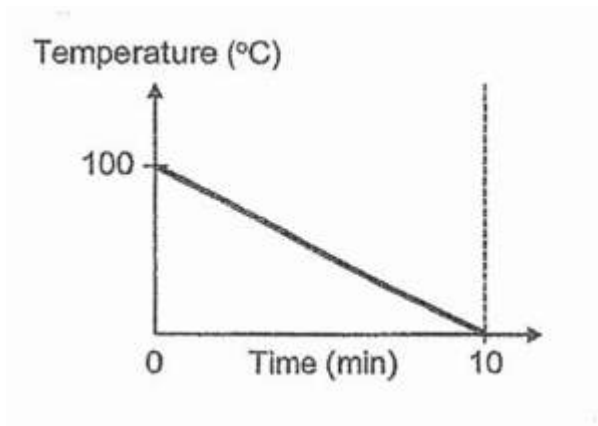
Question 28 of 64

Primary 5 Science (Term 4)

2 pts

Hashim poured some boiling water into a glass container and immediately added some ice cubes. Which of the following graphs show the possible changes in temperature of the water in the container over a period of 10 minutes?


 A)
Temperature ($^{\circ}\text{C}$)
 B)
Temperature ($^{\circ}\text{C}$)
 C)
Temperature ($^{\circ}\text{C}$)
 D)

**Question 29 of 64**

Primary 5 Science (Term 4) 0 pts

Boon Tong carried out three different activities P, Q and R. He measured his heart rate and breathing rate after completing each activity. He recorded the readings in the table below.

Activity	Heart rate (units/min)	Breathing rate (units/min)
P	65	30
Q	75	38
R	115	50

(a) What is the relationship between heart rate and breathing rate?

[1]

Question 30 of 64

Primary 5 Science (Term 4) 0 pts

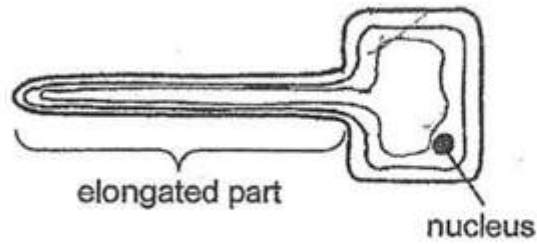
b) What can you say about Boon Tong's heart rate during activity R, compared to during other activities? Explain why.

Question 31 of 64

Primary 5 Science (Term 4)

1 pt

The diagram below shows a plant cell.



(a) Name the part of the plant that the cell can be found.

Question 32 of 64

Primary 5 Science (Term 4)

0 pts

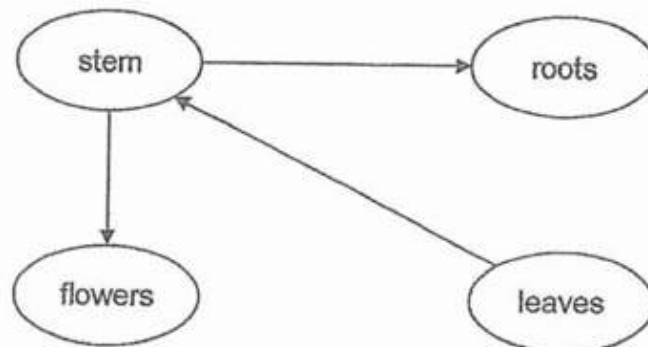
b) Why does the cell have an elongated part?

Question 33 of 64

Primary 5 Science (Term 4)

1 pt

The arrows show the movement of a material/substance within the plant transport system.



(a) What is the material/substance being transported?

[1]

Question 34 of 64

Primary 5 Science (Term 4) 0 pts

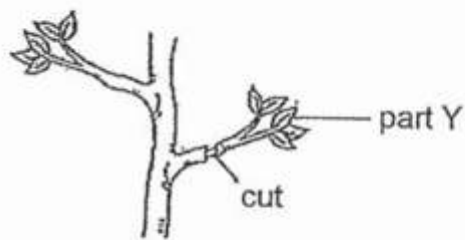
b) Name the two tubes involved in the transportation of materials/substances in the plant system.

- i. _____
ii. _____
-

Question 35 of 64

Primary 5 Science (Term 4) 0 pts

A cut was made on the branch of a plant as shown below.



(c) After some time, part Y was observed to have wilted. What could be the reason for this observation?

Question 36 of 64

Primary 5 Science (Term 4) 0 pts

The table below shows the genetic characteristics of four different persons.

Characteristic	Person			
	A	B	C	D
Type of eyelid	single	double	single	double
Ability to roll tongue	no	yes	yes	yes
Fingernail length	long	long	long	short
Hair colour	black	brown	black	brown

- (a) Based on the table, which two persons are most likely identical twins?
Explain your answer.

[1]

Question 37 of 64

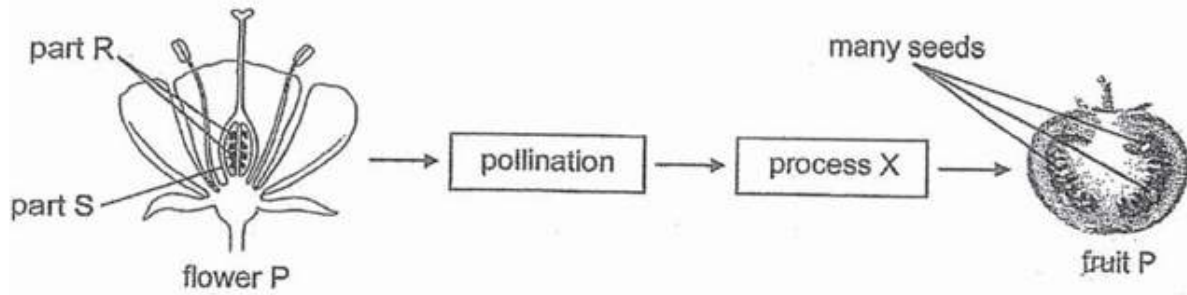
Primary 5 Science (Term 4) 0 pts

- b) Besides the characteristics mentioned in the table, name one other characteristics that can be passed down from parents to their young.

Question 38 of 64

Primary 5 Science (Term 4) 0 pts

The diagram below shows how a fruit P is formed from the flower of plant P. Fruit P has been cut open.



(a) State and describe process X.

[1]

Question 39 of 64

Primary 5 Science (Term 4) 0 pts

During process X, parts R and S of the flower undergo some changes to form some part(s) of fruit P. Complete the table below to show the changes to these parts.

Part of Flower P (before process X)	Part of Fruit P (after process X)
R	
S	

Question 40 of 64

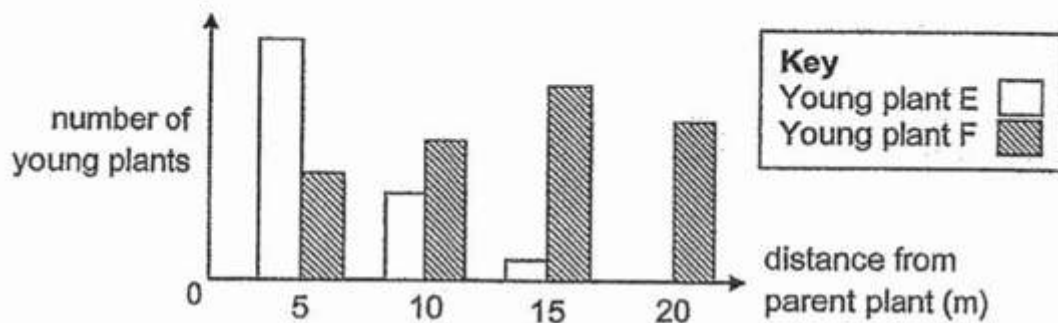
Primary 5 Science (Term 4) 1 pt

Name a fruit or plant which goes through the same process as plant P.

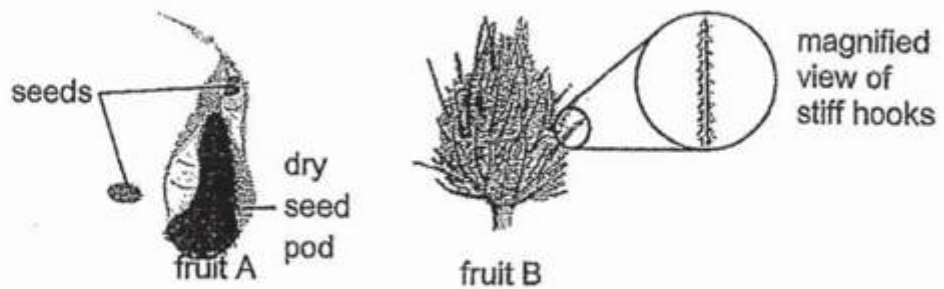
Question 41 of 64

Primary 5 Science (Term 4) 0 pts

Devi counted the number of two different types of young plants E and F at various distances from their respective parent plants in a park. She recorded the results in the graph below.



Study the two fruits below carefully.



- (a) Which fruit A or B, is most likely to be the fruit of plant E? Explain your answer.

[2]

Question 42 of 64

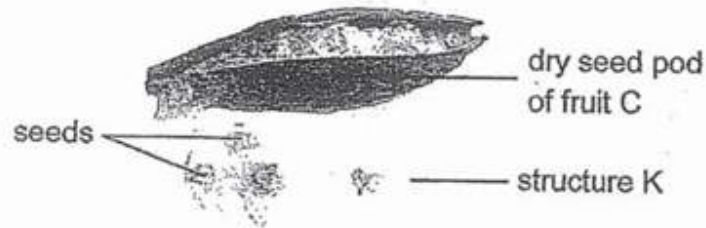
Primary 5 Science (Term 4) 0 pts

- b) Devi also noticed that the young plants of Plant F grew more healthily than those of Plant E. Explain his observation

Question 43 of 64

Primary 5 Science (Term 4) 0 pts

She later found another type of fruit C as shown below. Fruit C undergoes the same dispersal method as fruit A. Upon inspection, she noticed that fruit C has structure K.



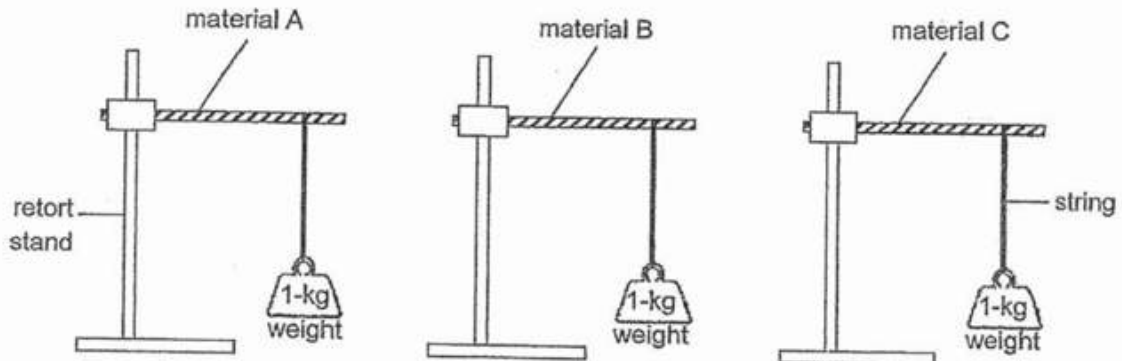
- (c) Explain how structure K helps fruit C to be dispersed further away from its parent plant as compared to fruit A.

[1]

Question 44 of 64

Primary 5 Science (Term 4) 2 pts

35. Fauzi wanted to test the flexibility of materials A, B and C. He used rods made of materials A, B and C for his investigation. He added weights of 1-kg to each rod as shown below.



- (a) Tick (✓) the variables that he must keep the same to ensure a fair test.

[2]

- A) length of the string
- B) length of the rod
- C) type of material
- D) thickness of the rod

Question 45 of 64

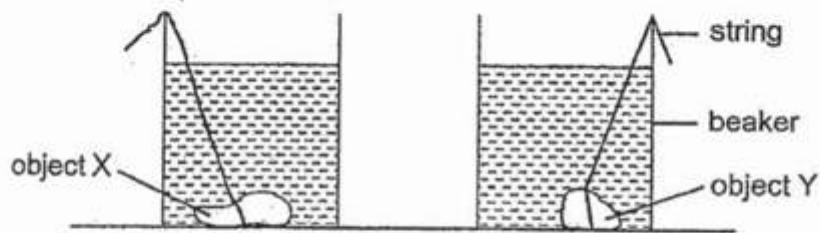
Primary 5 Science (Term 4) 0 pts

What must he measure in order to compare the flexibility of the materials?

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Primary 5 Science (Term 4) 0 pts

The diagram below shows two identical beakers with two objects X and Y made of plasticine. The water levels in the two beakers are the same.



- (a) If you are not allowed to use any other apparatus or to add or remove water from the beaker, describe how you can find out which object X or Y has a bigger volume.

[2]

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Primary 5 Science (Term 4) 0 pts

b) Based on what you have done in (a), how can you tell if object X has a bigger volume than object Y?

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Primary 5 Science (Term 4)

1 pt

A boy has four pieces of metals P, Q, R and S. The table below shows the interaction between the metals when they are brought closed together.

Metals	Observation
P and Q	no attraction or repulsion
P and S	attraction
Q and S	attraction
R and S	no attraction or repulsion

(a) Based on his observations, which metal is most likely to be a magnet? [1]

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

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Primary 5 Science (Term 4)

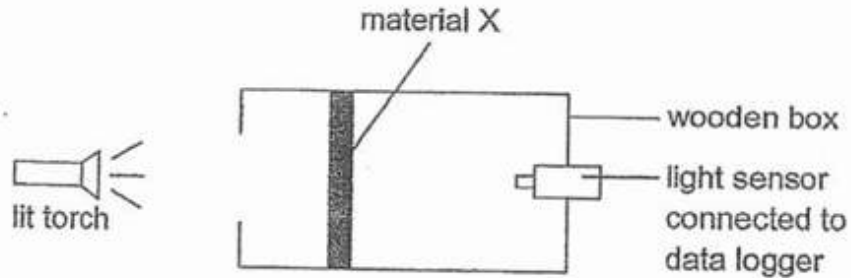
0 pts

b) What conclusions can you make about metals P and Q? Explain your answer.

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Primary 5 Science (Term 4) 0 pts

A group of students wanted to investigate a property of three materials X, Y and Z. They placed material X in a wooden box as shown in the set-up below and recorded the amount of light detected by the light sensor.



They repeated the experiment with materials Y and Z of the same thickness. The amount of light detected by the light sensor is recorded in the table below.

Material	Amount of light detected (units)
X	0
Y	2500
Z	1000

(a) What property of the three materials are they investigating?

[1]

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Primary 5 Science (Term 4) 0 pts

b) A greenhouse is a place where plants are grown. If a farmer wants to build a greenhouse using one of the materials X, Y and Z. Which material is the most suitable? Explain your answer.

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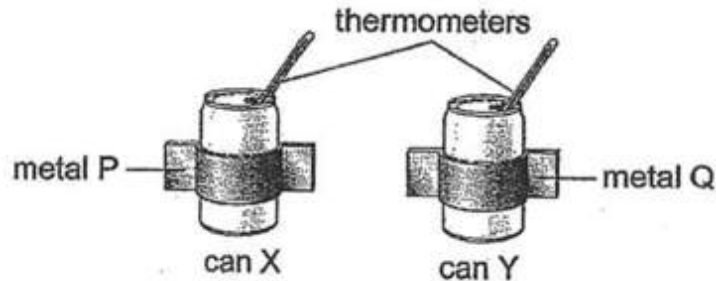
Primary 5 Science (Term 4) 0 pts

c) Is the moon a light source? Explain your answer

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Primary 5 Science (Term 4) 1 pt

Ben filled two identical metal cans X and Y with 150 cm³ of water at 80 °C. Next, he wrapped a strip of metal P around can X and another strip of metal Q around can Y, as shown in the diagram. The metal strips, which extended out of the cans, are of the same length and thickness. He then left his set-ups on a table in a room.



Ben recorded the temperature of the water in each can at 5-minute intervals for 25 minutes in the table below.

Time (min)	Temperature of water in the can (°C)	
	X	Y
0	80	80
5	64	60
10	53	47
15	45	36
20	36	31
25	?	31

- (a) Based on the results of the experiment, state whether the following statements is true (T), false (F) or not possible to tell (NP). [2]

Can Y is a better conductor of heat than can X

- A) True
 B) False
 C) Not possible to tell

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Primary 5 Science (Term 4) 1 pt

Metal Q is a better conductor of heat than metal P

- A) True
 B) False
 C) Not possible to tell

Question 55 of 64

Primary 5 Science (Term 4) 1 pt

The temperature of water in can Y drops more quickly than that in can X

- A) True
- B) False
- C) Not possible to tell

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Primary 5 Science (Term 4) 1 pt

The water in can X gains heat more quickly from the surroundings than the water in can Y

- A) True
- B) False
- C) Not possible to tell

Question 57 of 64

Primary 5 Science (Term 4) 0 pts

b) What could be the temperature of the water in can X at 25 minutes? Explain your answer

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Primary 5 Science (Term 4) 0 pts

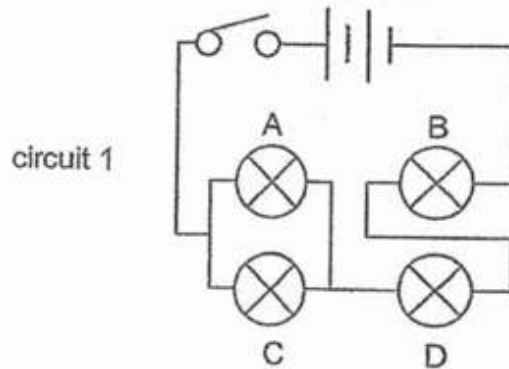
c) Which materials P or Q is more suitable for making a frying pan? Explain your answer.

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Primary 5 Science (Term 4)

0 pts

Four identical bulbs A, B, C and D were connected in circuit 1 as shown below. All the bulbs lit up when the switch was closed.



- (a) Haresh removed one light bulb from the circuit each time and observed what happened to the rest of the light bulbs. Complete the table below to show the number of bulbs remaining lit.

[2]

Bulb removed	No. of bulbs remaining lit
A	
B	
C	
D	

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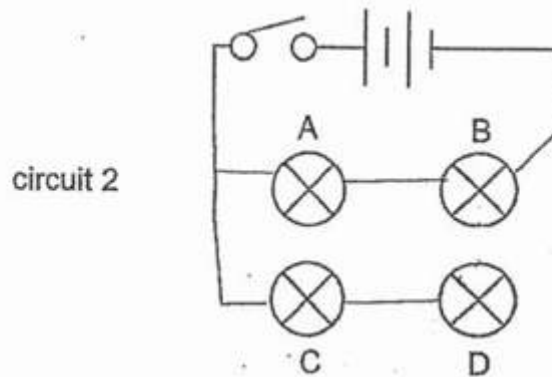
Primary 5 Science (Term 4)

0 pts

- (b) Using only the same electrical components, Haresh rearranged circuit 1 into circuit 2 so that the bulbs will be lit as described in the table below.

Bulb removed	Bulbs remaining lit
A	B, C and D
B	None
C	A and B
D	A and B

In the space below, complete the circuit so that it will work as described.



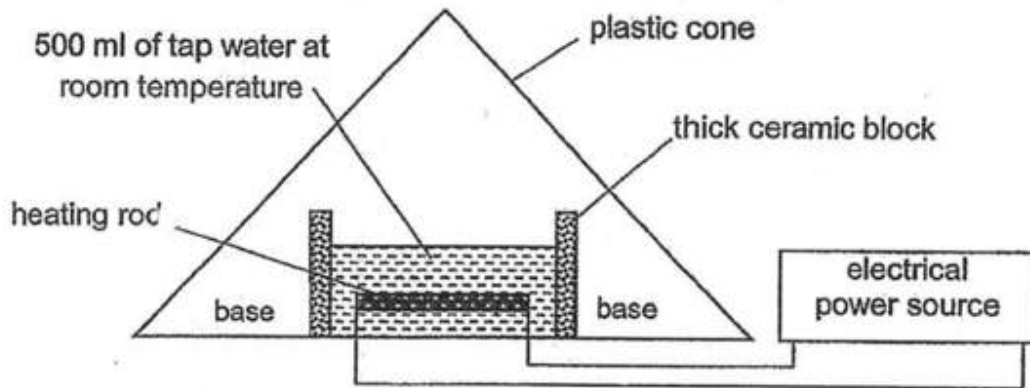
Please type "done" to proceed to the next question

Question 61 of 64

Primary 5 Science (Term 4)

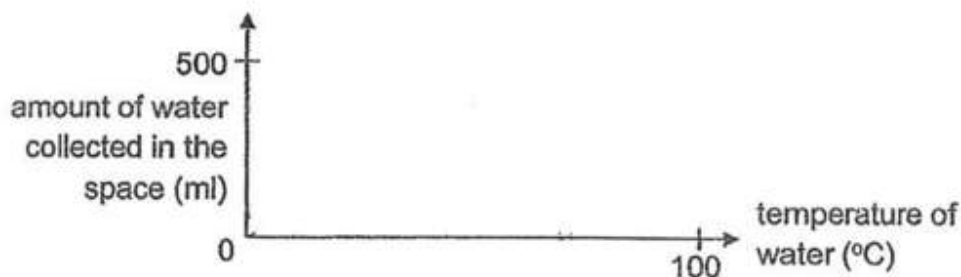
0 pts

Anwen conducted an experiment using the set-up below to find out if the temperature of water affects the rate of water collected. Using a heating rod, she gradually increased the temperature of the water until it reached 100 °C. After 15 minutes, she saw that some water was collected at the base of the cone.



- (a) Complete the graph below by drawing a line to show the relationship between the temperature of water and the amount of water collected at the base of the cone.

[1]



Please type "done" to proceed to the next question

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Primary 5 Science (Term 4)

0 pts

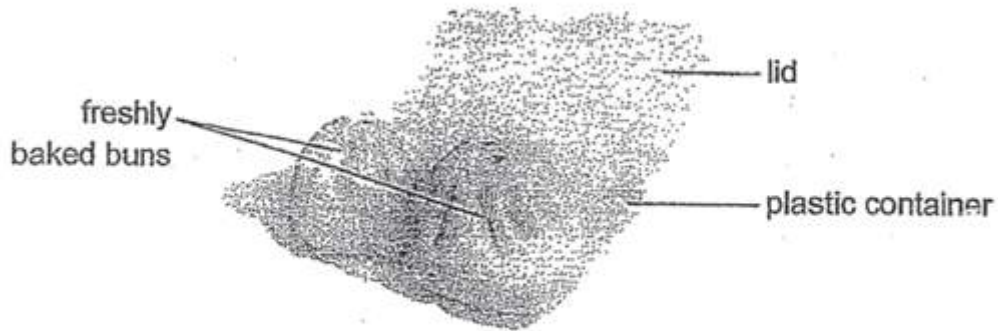
- b) Explain how water was collected at the base of the cone.

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Primary 5 Science (Term 4)

0 pts

Anwen placed some freshly baked buns in a plastic container as shown below. She left the plastic lid open for a while before closing it.



- (i) State what can be observed about the condition of the buns when she closed the lid of the container after a while.
-

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Primary 5 Science (Term 4)

0 pts

- ii) Explain the observation in c(i)
-