RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

SCIENCE
2026 PRELIMINARY EXAMINATION
PRIMARY 6

Name : _____ ( )

Class : Primary 6/ _____

Date : 20 August 2026

BOOKLET A

Total time for Booklets A & B: 1h 45 min

Booklet A: 30 questions (60 marks)

Note:

1. Do not open the booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the booklet.
3. Do not waste time. If the question is too difficult for you, go on to the next question.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
   a. Page 1 to Page 24
   b. Questions 1 to 30

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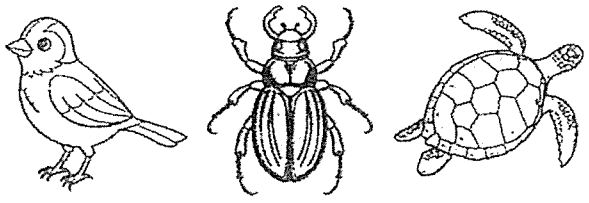
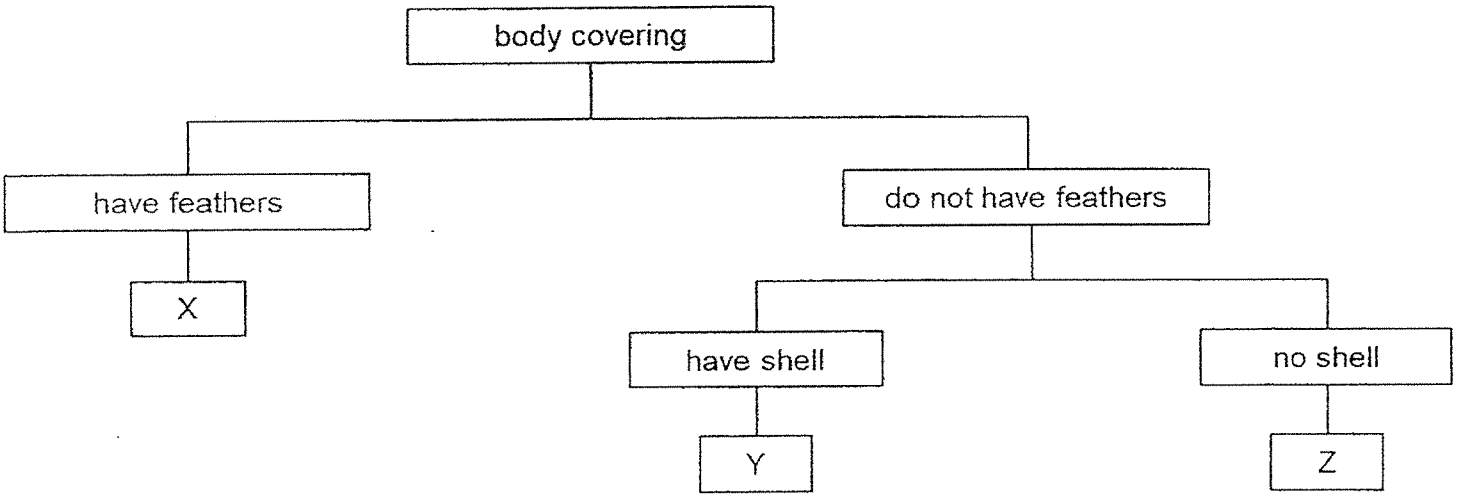
For Questions 1 to 30, choose the most suitable answer and shade its number in the OAS provided.

1 Study the classification chart and the three animals, A, B and C.



A B C



Which of the following shows the correct classification of animals in boxes X, Y and Z?

	X	Y	Z
(1)	A	B	C
(2)	A	C	B
(3)	B	A	C
(4)	C	B	A

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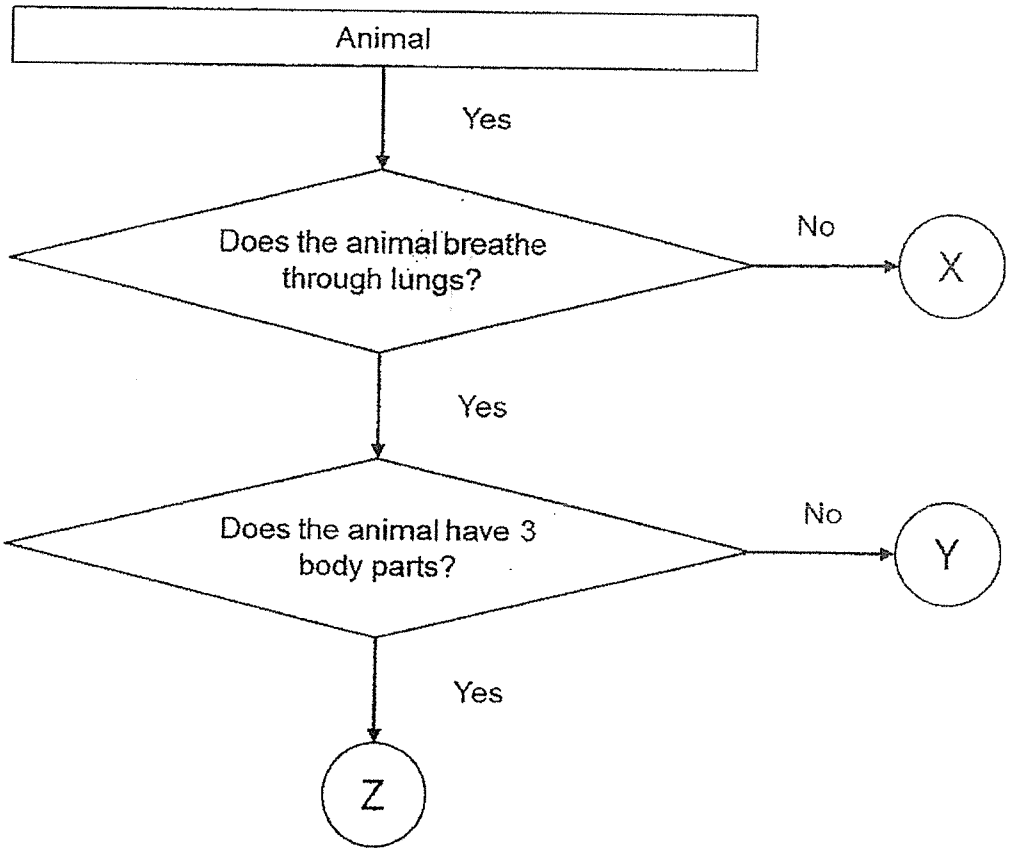
2 Study the flow chart below.



Which of the following statements is true about animals X, Y and Z?

(1) X breathes through gills.
(2) X and Z have 3 body parts.
(3) Y does not have 3 body parts.
(4) Y and Z do not breathe through lungs.

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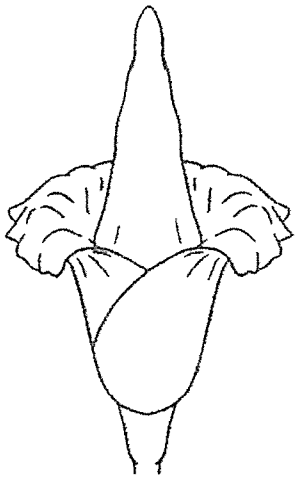
3 The diagram below shows a flower of plant F.



flower of plant F

Plant F can be found in thick and dense rainforests which receives a lot of rain. The flower is brightly-coloured and gives off a strong smell similar to the smell of dead animals.

How is plant F pollinated?

(1) Wind
(2) Water
(3) Insect
(4) Splitting

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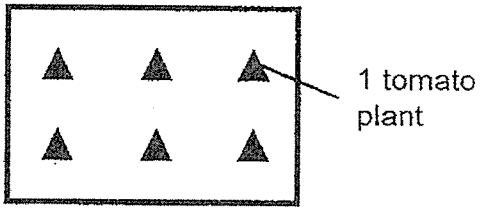
4 A farmer has a plot of land where he grows similar tomato plants as shown below.

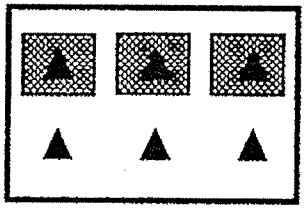


He predicts that more tomatoes will be produced by adding 5 g of fertiliser to the soil around each plant. He wants to conduct an experiment to find out if his prediction is correct.

Which of the following arrangements should the farmer use to ensure a fair test for his experiment?

 5 g of fertiliser added

(1)



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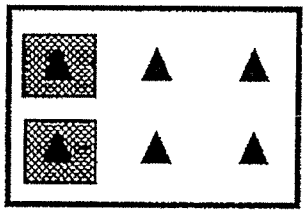

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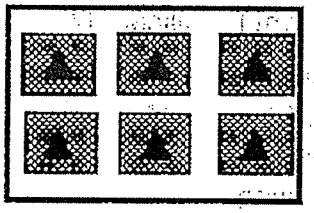

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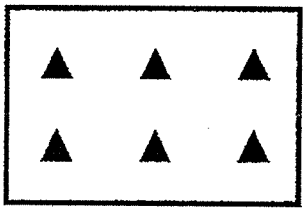

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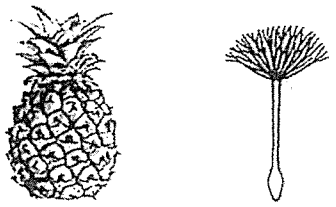
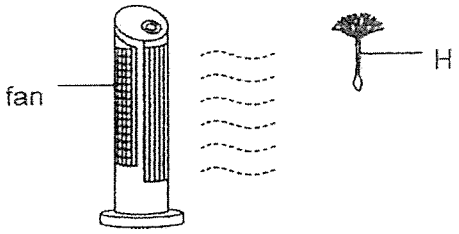
5 The diagram below shows fruits G and H. G is heavier than H.



G H

Hassan conducted an experiment to find out if the amount of wind affects the distance moved by H as shown.

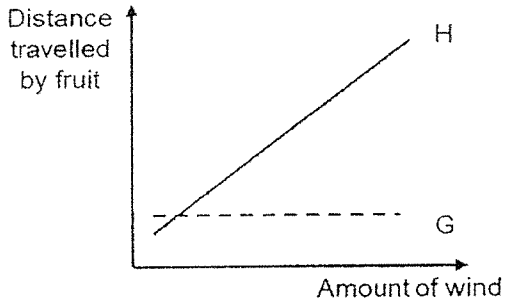


Key
——— : Fruit H
– – – – : Fruit G

He repeated the experiment with fruit G.

Which of the following graphs correctly shows the distance moved by G and H when the amount of wind increases?

(1)



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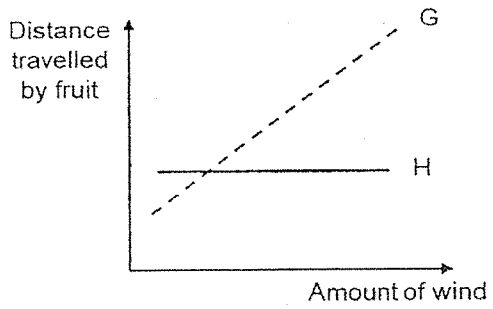

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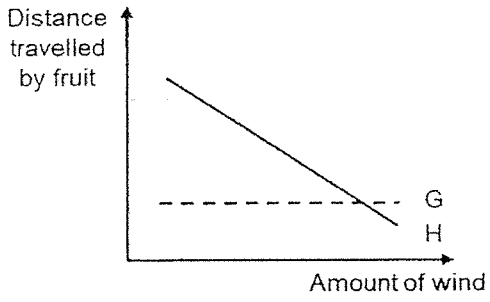

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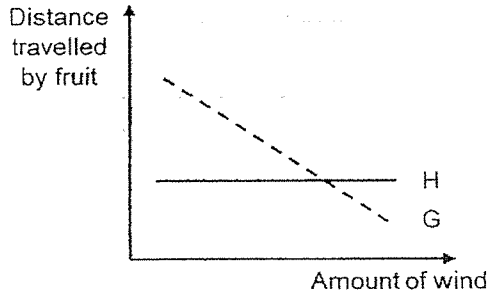

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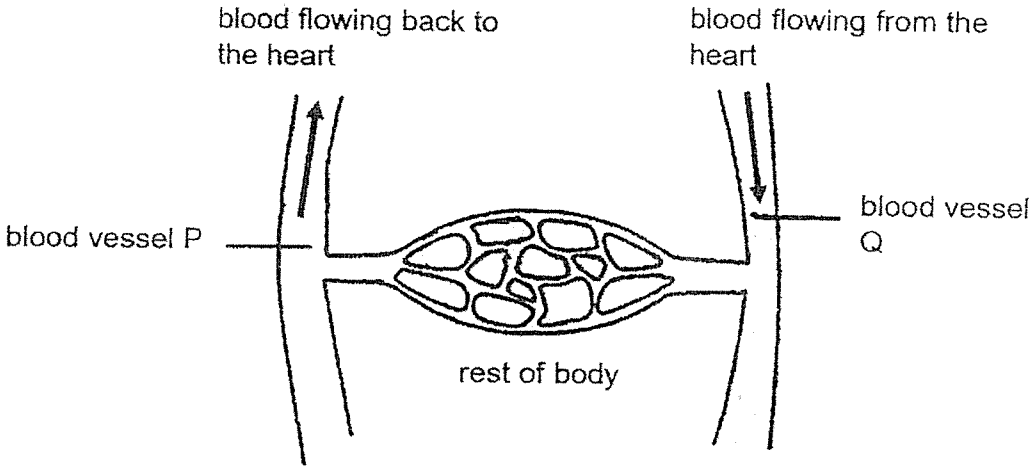
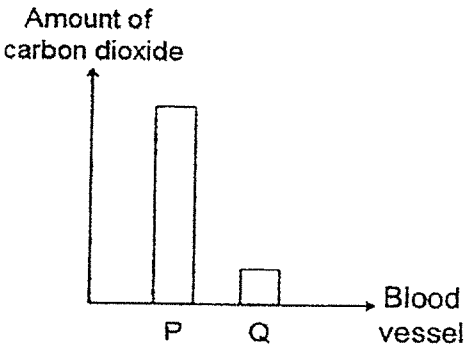
6 Blood samples were taken from the blood vessels, P and Q, in a human circulatory system.

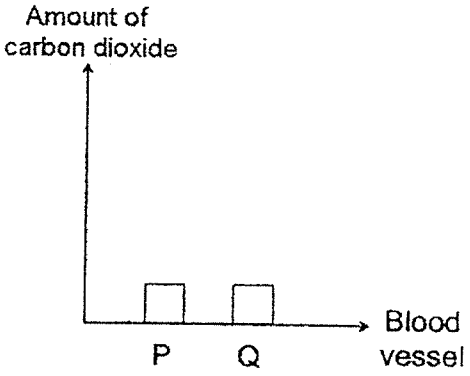


Which graph correctly represents the amount of carbon dioxide in the blood vessels?

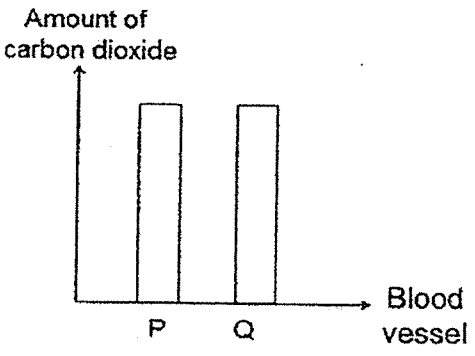
(1)



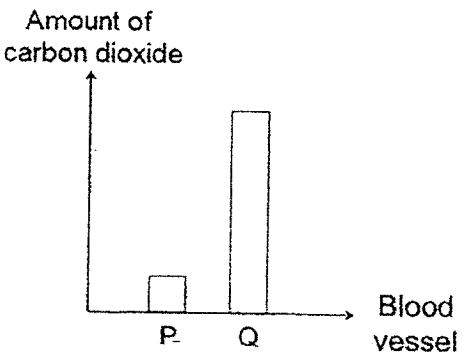
(3)



(2)



(4)



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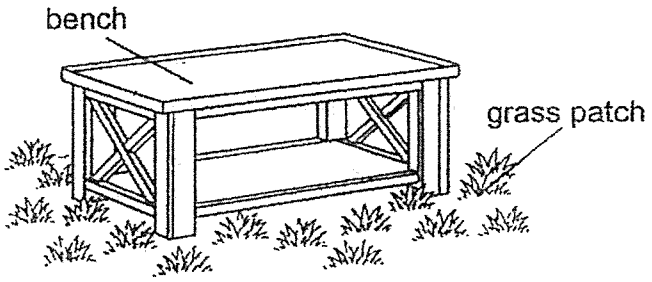
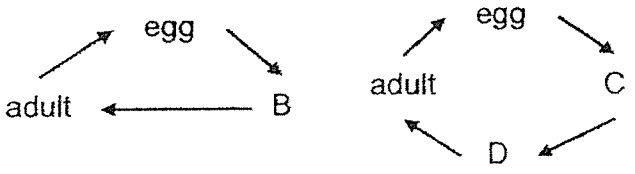
7 Germaine placed a bench on the grass patch in her garden. After one month, she noticed that the grass patch under the bench turned yellow while the surrounding grass was green.



Which of the following best explains why the grass patch under the bench turned yellow?

(1) There was not enough water for the grass.
(2) There was not enough oxygen for the grass.
(3) There was not enough sunlight for the grass.
(4) There was not enough mineral salts for the grass.

8 Study the life cycles of two organisms below.



Grasshopper Beetle

Which of the following statements is correct about the life cycles?

(1) Stage C does not eat.
(2) Stages B and D involve molting.
(3) The young of both organisms look like their adult.
(4) The beetle has more stages in its life cycle than the grasshopper.

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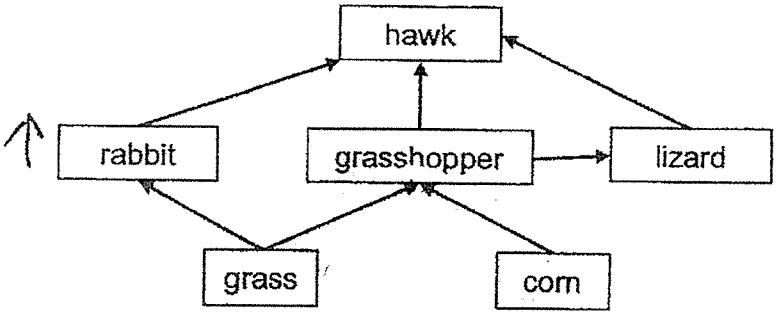
9 The food web below is used for questions 9, 10 and 11.



Which food chain shows a correct flow of energy through the web?

(1) grass → rabbit → lizard
(2) corn → grasshopper → hawk
(3) grasshopper → lizard → hawk → rabbit
(4) hawk → rabbit → grasshopper → grass

10 Which of the following shows the correct classification of the organisms in the food web?

	Producer	Predator	Prey
(1)	grass	rabbit	corn
(2)	corn	hawk	lizard
(3)	hawk	lizard	grasshopper
(4)	rabbit	grass	hawk

11 Trees were cut down to create roads for vehicles in a town. This caused the population of grasshopper to decrease.

Which of the following statements are true?

A The population of grass would increase.

B The population of lizards would increase.

C The population of hawks would decrease.

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

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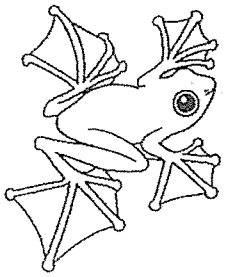
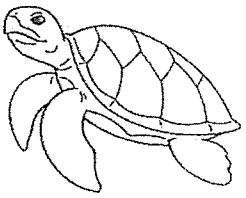
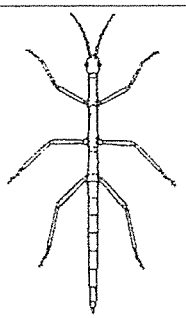
12 Three organisms, J, K and L, have characteristics that help them survive in their habitats as shown below.

Organism	J	K	L
Diagram			
Characteristic	webbed feet	hard shell	brown and thin body

Which of the following organisms' characteristics have been correctly matched to their functions?

	To blend in with the surroundings	To escape from predators' bites	To glide further
(1)	K	J	L
(2)	J	L	K
(3)	L	J	K
(4)	L	K	J

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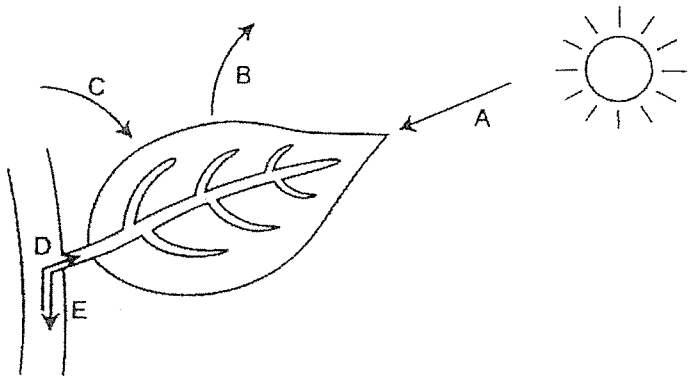
13 Plants carry out photosynthesis in their leaves.



Based on the diagram, which of the following best represents A, B, C, D and E?

	A	B	C	D	E
(1)	heat	oxygen	carbon dioxide	water	sugar
(2)	sunlight	carbon dioxide	oxygen	water vapour	mineral salts
(3)	heat	carbon dioxide	oxygen	water vapour	mineral salts
(4)	sunlight	oxygen	carbon dioxide	water	sugar

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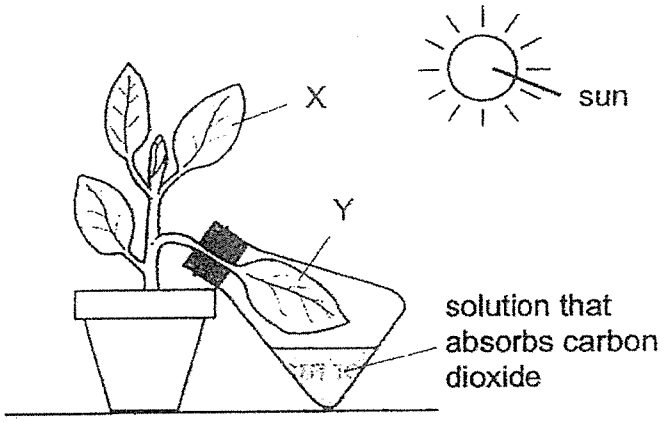
14 Jett conducted an experiment to find out if carbon dioxide is needed for photosynthesis. He kept the plant in the dark for 24 hours to remove any starch. Then, he placed the plant in light, as shown in the diagram below.



After 10 hours, leaves X and Y were tested for starch. Jett recorded his results.

What were the results recorded?

	Presence of starch	
	leaf X	**leaf Y**
(1)	No	Yes
(2)	No	No
(3)	Yes	Yes
(4)	Yes	No

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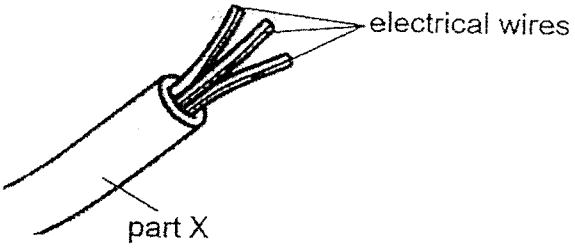
15 Electrical wires are usually covered with an additional layer of material, part X, as shown.



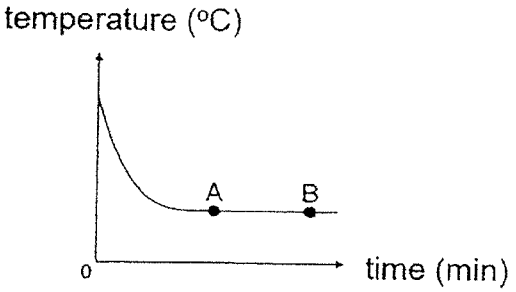
Part X acts as a protective layer around the metal wire inside, preventing people from touching the metal directly and reducing the risk of electric shock.

Which material is most suitable for making part X?

	Property			
	material	**flexible**	**waterproof**	**good conductor of electricity**
(1)	A	X	√	√
(2)	B	√	√	X
(3)	C	√	X	√
(4)	D	√	√	√

Key
√ : yes
X : no

16 Arun placed a cup of warm water in the refrigerator and measured its temperature. His results are as shown.



Which statement best describes the water at AB?

(1) It is getting cooler.
(2) It has turned into ice.
(3) It has stopped losing heat.
(4) It is changing from a liquid to a solid state.

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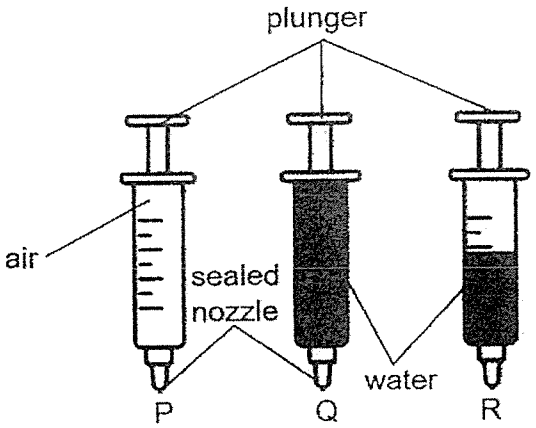
17 Sarah conducts an experiment using three syringes, P, Q and R. The total volume of each syringe is 80 ml.

- Syringe P contains 80 ml of air and its nozzle is sealed.
- Syringe Q contains 80 ml of water and its nozzle is sealed.
- Syringe R contains 40 ml of water and 40 ml of air and its nozzle is sealed.



Sarah pushes the plunger fully for all three syringes with the same amount of force and records the new volume of the contents.

Syringe	Contents	Volume before (ml)	Volume after (ml)
P	Air	80	?
Q	Water	80	?
R	Water and Air	80	?

What is the new volume of the contents for the three syringes?

	Volume after (ml)		
	P	Q	R
(1)	80	40	50
(2)	60	40	30
(3)	60	80	30
(4)	30	80	60

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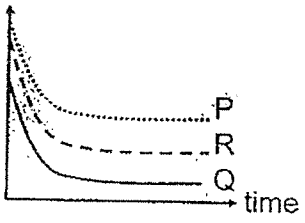
18 Three identical pieces of wet cloth were hung in different places. Each cloth contained the same amount of water at the start.

Cloth	Conditions
P	Folded and hung indoors in a closed room
Q	Hung outdoors under the sun on a windy day
R	Folded and hung outdoors under the sun

The mass of the cloth was measured and recorded at regular intervals. Which graph best matches the observations from the experiment?

(1)



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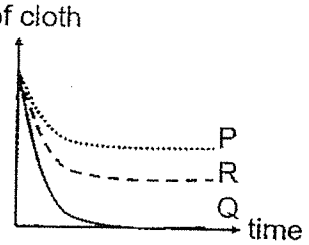

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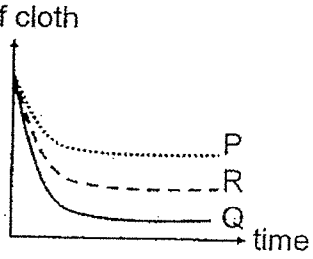

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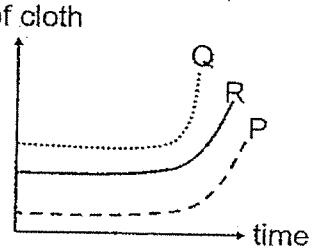

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19 Four statements are made about safe practices when using electricity at home and in school.

A Unplugging appliances by holding the plug, not the wire.

B Using a socket that has many plugs connected to one extension adaptor.

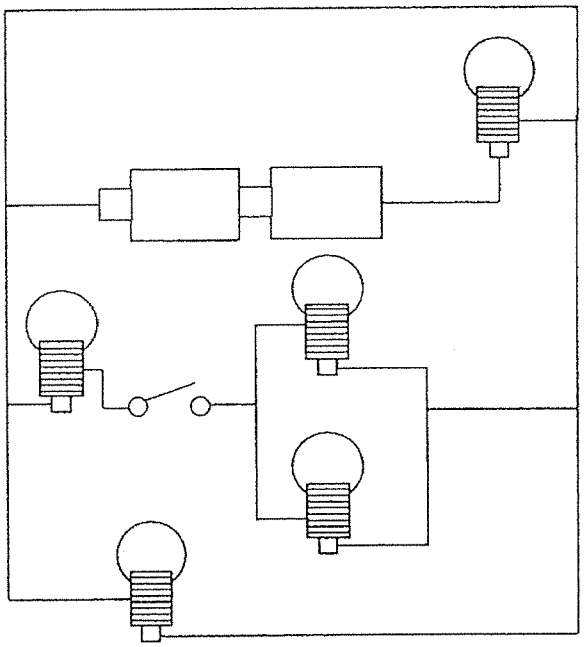
C Turning off the switch before removing a light bulb.

D Using appliances with damaged wires while they are still working.

Which of the following statements show safe use of electricity?

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

20 Five bulbs are connected in a circuit as shown.



How many more bulbs will light up when the switch is closed?

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

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21 Nurul set up a card with metal clips A, B, C and D as shown in Figure 1. The metal clips were connected using wires at the back of the card. She set up a circuit tester as shown in Figure 2 and connected X and Y to the metal clips.

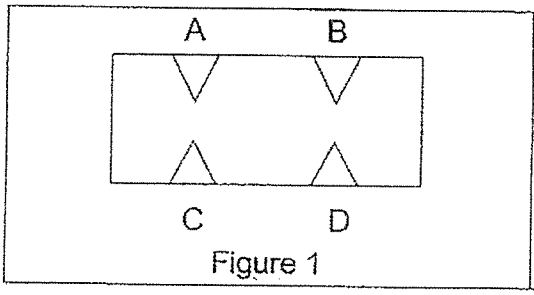

Figure 1

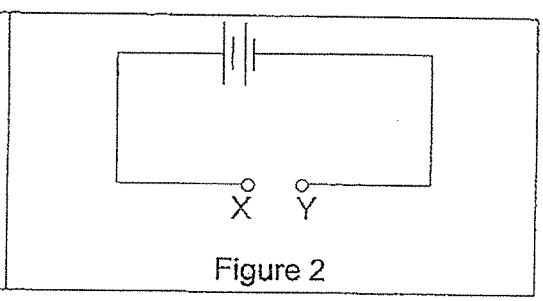

Figure 2

She recorded her observations in the table below.

Clips connected	Observation
A and B	The bulb lit up.
A and C	The bulb lit up.
B and C	The bulb lit up.
C and D	The bulb did not light up.

Which diagram(s) shows how the wires were connected at the back of the card?

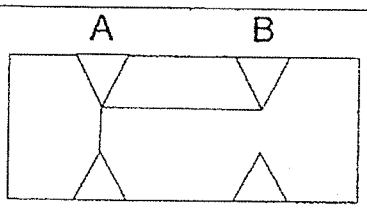

Diagram P

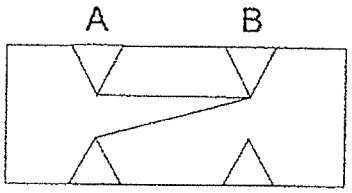

Diagram Q

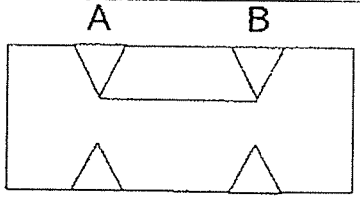

Diagram R

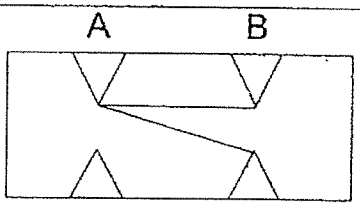

Diagram S

(1) P and Q only
(2) P and R only
(3) R and S only
(4) Q and S only

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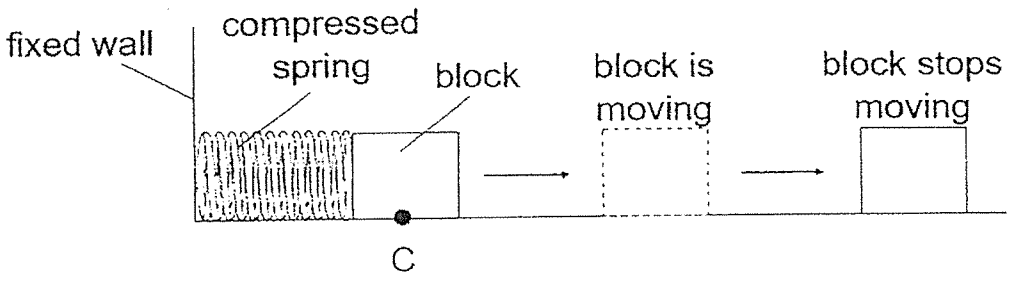
22 Three objects were tested during an experiment and the results are shown below.

Test	Object E	Object F	Object G
Attracted to a magnet	Yes	Yes	Yes
Attracts iron nails	Yes	Yes	No
Repels one pole of a magnet	No	Yes	No

Which statement is correct?

(1) E and F are magnets.
(2) G is a magnet because it is attracted to a magnet.
(3) F is a magnet while E may be a magnet or magnetic material.
(4) E and G are magnetic materials because they cannot repel a magnet.

23 In the set up below, a compressed spring is used to push a block. Once the spring is released, the box moves along the table until it comes to a stop.



Which is/are the force(s) that acted on the block at point C?

	Elastic spring force	Gravitational force
(1)	yes	yes
(2)	yes	no
(3)	no	yes
(4)	no	no

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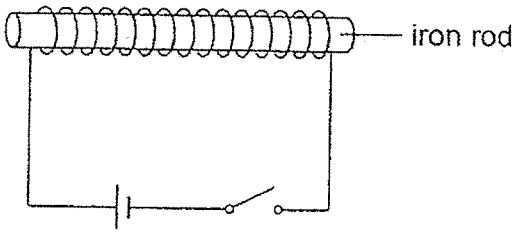
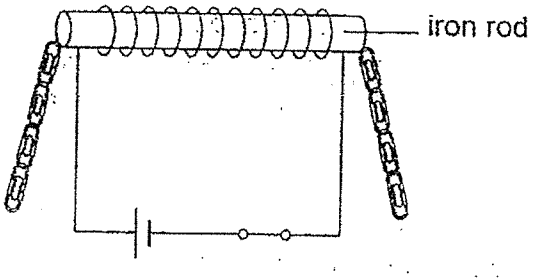
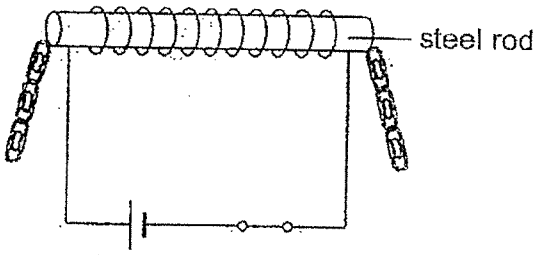
24 Qianzheng used the electrical method to magnetise an iron rod.
The diagrams below shows the set up he used to magnetise the iron rod.

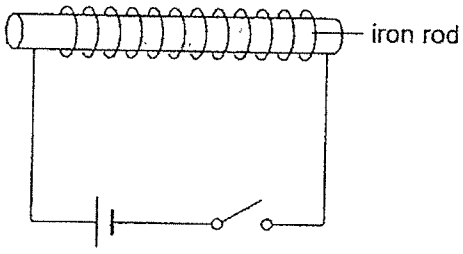


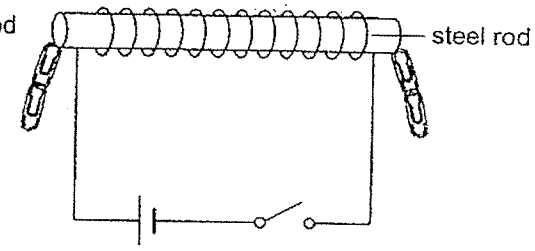
After the switch was closed for two minutes, the iron rod was able to attract 8 paper clips.
Qianzheng repeated the experiment using a steel rod and observed that the steel rod attracted 6 paper clips.





After the switch was open, the number of paper clips attracted by each rod is shown below.





Qianzheng made four statements about iron and steel based on his observations above.

A Both iron and steel can be magnetised.
B Iron gets magnetised more slowly than steel.
C Steel loses its magnetism more slowly than iron.
D Steel is able to remain magnetised when current stops flowing in the circuit.

Based on Qianzheng's experiment, which statements are correct?
(1) A and B only
(2) B and C only
(3) A, B and C only
(4) A, C and D only

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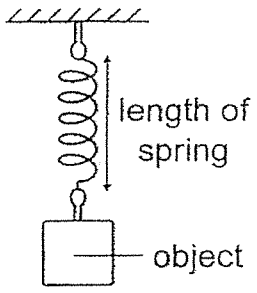
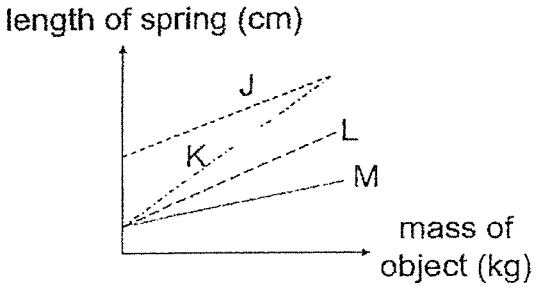
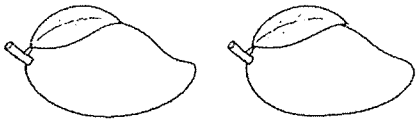
25 Shuying used the set up below to study four different springs, J, K, L and M.



She hung objects of different mass on each spring and measured the length of the spring. The results are shown in the graph.



Using the same setup, Shuying wanted to compare the masses of the two mangoes by observing how much the spring extended when each mango was hung.



Which spring, J, K, L or M, is most suitable for her set up?

(1) J
(2) K
(3) L
(4) M

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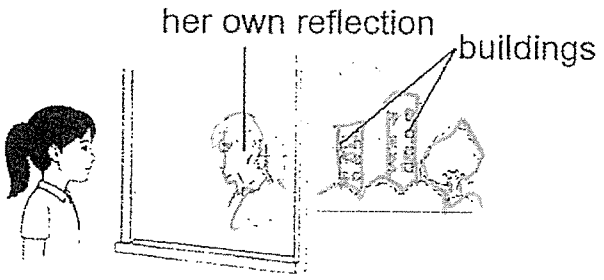
26 Zhi Qing looked at a clean glass window during the day. She could see the buildings outside the window and also faintly see her own reflection on the glass.



Which statement best explains this observation?

(1) All the light passed through the glass window.
(2) Light from her eyes travelled to the glass and bounced back.
(3) The glass produced light which allowed her to see the buildings and her own reflection.
(4) Some light passed through the glass while some light was reflected by the glass into her eyes.

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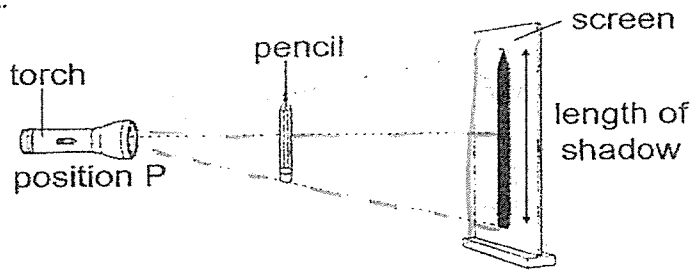
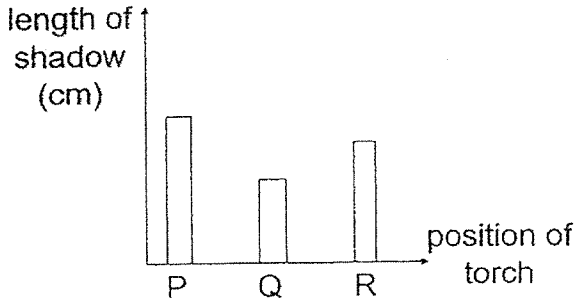
27 Gopal investigated how the position of a torch affects the length of the shadow formed by a pencil. He kept the pencil and screen in the same position throughout the experiment.

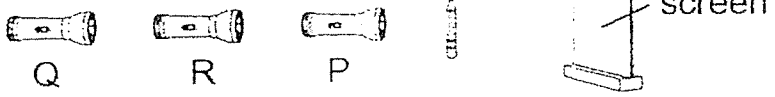


He repeated the experiment by placing the torch at positions Q and R. He measured and recorded the length of the shadow formed on the screen. His observations are shown in the graph below.

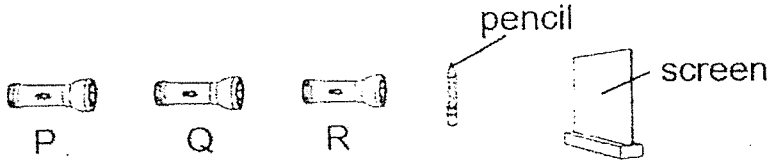


Which diagram shows correctly the positions P, Q and R?

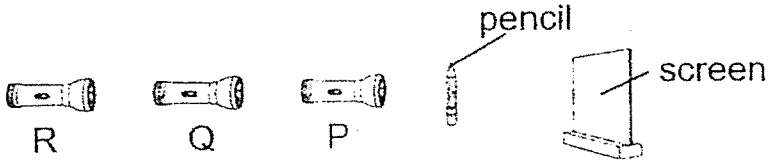
(1)



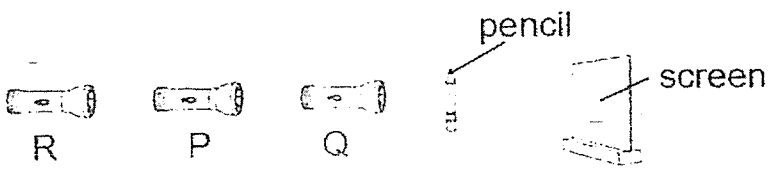
(2)



(3)



(4)



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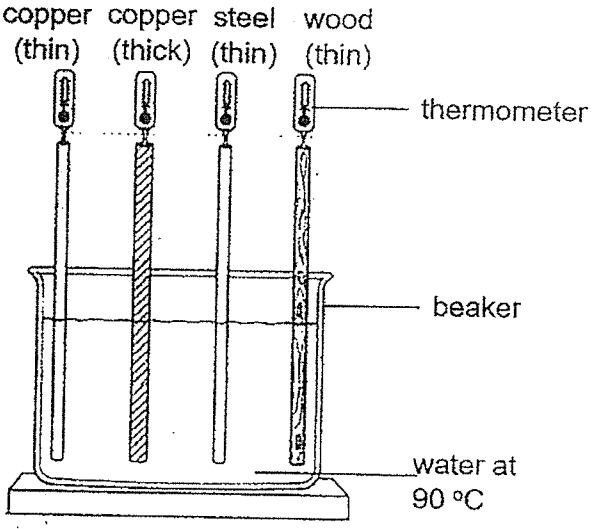
28 Four rods, made of different materials and thickness, but of equal length, were placed with one end in hot water at 90 °C. The temperature of the other end of the rods was measured with a thermometer after five minutes.



The table below shows results of the experiment.

Rod	Temperature at the other end (°C)
copper (thin)	65
copper (thick)	54
steel (thin)	46
wood (thin)	32

Based on the results of the experiment above, which of the statement(s) is/are correct?

A Not all metals conduct heat equally well.
B Copper is a better conductor of heat than steel and wood.
C Steel is a better conductor than copper because it gained less heat.
D Thin rods are always better conductors than thick rods, regardless of material.

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

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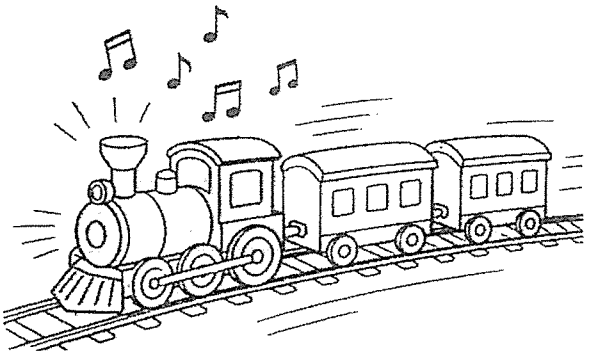
29 A girl switches on a battery-operated toy train. The toy train moves forward and produces sound.



Which of the following shows how the energy changes when the toy train is switched on?

(1) electrical energy → kinetic energy → sound energy
(2) potential energy → electrical energy → kinetic energy
(3) electrical energy → potential energy → kinetic and sound energy
(4) potential energy → electrical energy → kinetic and sound energy

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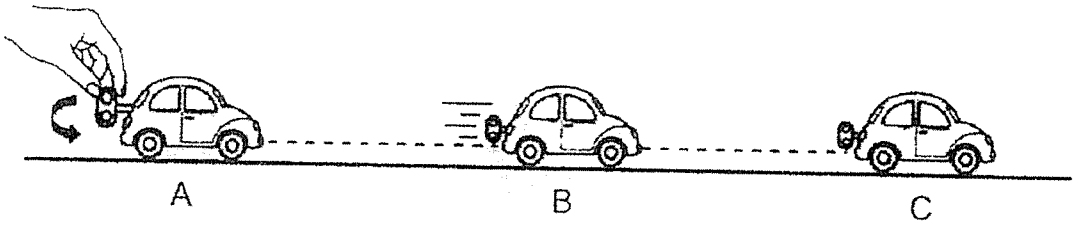
30 A wound-up toy car has a spring inside it. Liam wound-up a toy car by compressing the spring and released it at point A. The spring returned to its original length before reaching point B. The toy car moved along the floor, passed point B and stopped at point C.



Different types of energy are represented using the shading below.

potential energy kinetic energy heat energy

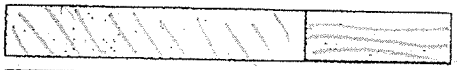
The chart below shows the amount and type of energy the wound-up car at point A.

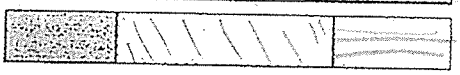


Which chart best represents the energy the wound-up car has at point B?

(1) 

(2) 

(3) 

(4) 

End of Booklet A

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RED SWASTIKA SCHOOL

SCIENCE
2026 PRELIMINARY EXAMINATION
PRIMARY 6

Name : _____ ( )

Class : Primary 6/ _____

Date : 20 August 2026

BOOKLET B

10 Questions
40 Marks

In this booklet, you should have the following:
a. Page 25 to Page 35
b. Questions 31 to 40

MARKS

	OBTAINED	POSSIBLE
BOOKLET A		60
BOOKLET B		40
TOTAL		100

Parent's Signature : _____

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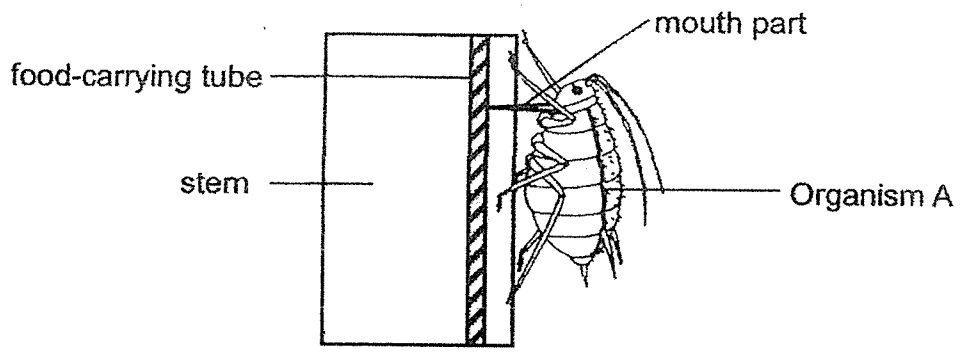
Answer all the questions in the spaces provided.

31(a) Name 2 systems in humans that allow them to carry out life processes. (1m)

_____

The diagram below shows Organism A feeding on the stem of a plant during the day.



(b) Name 2 substances that are transported in the stem of the plant. (1m)

_____

Farmer Bob conducted an experiment to find out if the number of organism A present affects the mass of fruits produced from his plants. He recorded his findings below.

Number of organism A on plant	Mass of fruits harvested from plant (g)			
	Plant 1	Plant 2	Plant 3	Average
0	455	460	450	455
20	445	450	440	445
40	430	435	440	435
60	415	425	435	425

(c) Organism A does not feed on the leaves and fruits of plants.
Explain how the number of organism A on plant affects the mass of fruits harvested from the plant. (2m)

_____

_____

4

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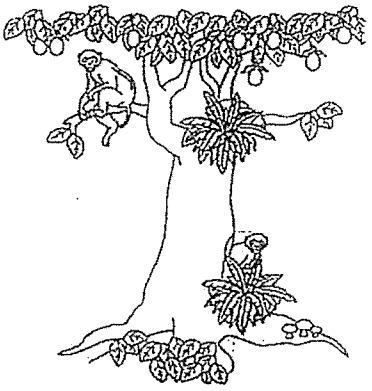
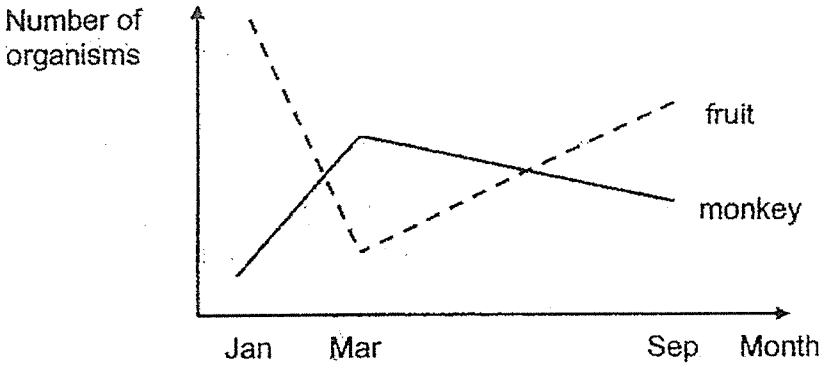
32(a) Describe the term 'habitat'. (1m)

_____

The diagram below shows some organisms living in a tree habitat.



The number of monkeys and fruits in the habitat were monitored for several months. The results are shown below.



(b) Based on the graph above, state how the number of monkeys affected the number of fruits in the tree habitat from January to September. (2m)

_____

_____

_____

Trees and plants were cut down to clear the land to build homes.

(c) Explain how clearing trees would lead to global warming. (2m)

_____

_____

_____

5

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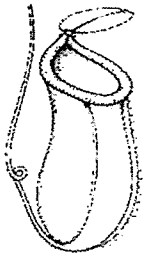
33 The diagram below shows a leaf of a pitcher plant. The plant traps insects in its leaves and uses digestive juices to digest the organisms trapped in it.



The inside of the pitcher plant is slippery.

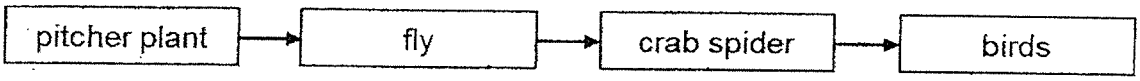
(a) Based on the information above, what type of adaptation is the slippery inner part of the pitcher plant? (1m)

_____

(b) How does this adaptation benefit the pitcher plant? (1m)

_____

Study the food chain below.



(c) List down the predator(s) in the food chain. (1m)

_____

(d) Based on the food chain above, how does the pitcher plant directly benefit the bird? (1m)

_____

(e) Geckos were introduced into the habitat. Geckos eat flies. On the food chain above, add where gecko would be in the food chain. (1m)

5

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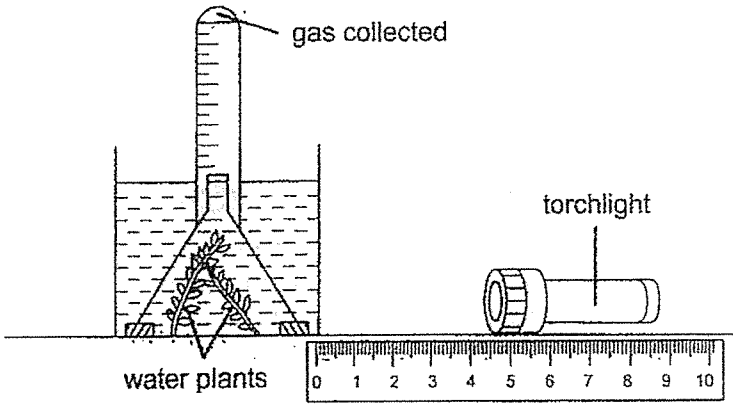
34 Ali conducted an experiment. His set up is shown below.



Ali measured the volume of gas collected. He recorded his results in the table below.

Distance between torchlight and beaker (cm)	Volume of gas collected (cm^3)
1	20
3	17
5	15
7	12
9	9

(a) What was the aim of Ali's experiment? (1m)

_____

(b) Name the process carried out by the plant and the gas collected. (1m)

Process: _____

Gas collected: _____

(c) Based on the table above, explain how the distance between the torchlight and beaker affects the volume of gas collected. (2m)

_____

_____

4

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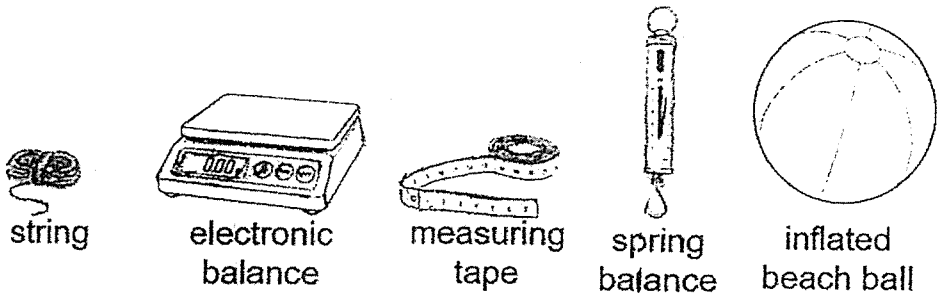
35. Mary wants to test her hypothesis that air has mass. She has some apparatus as shown.



(a) Describe how she can test her hypothesis that air has mass using the apparatus selected. (2m)

You may use a labelled diagram along with your answer. (Do not draw the scale on the measuring tape and spring balance if used).

2

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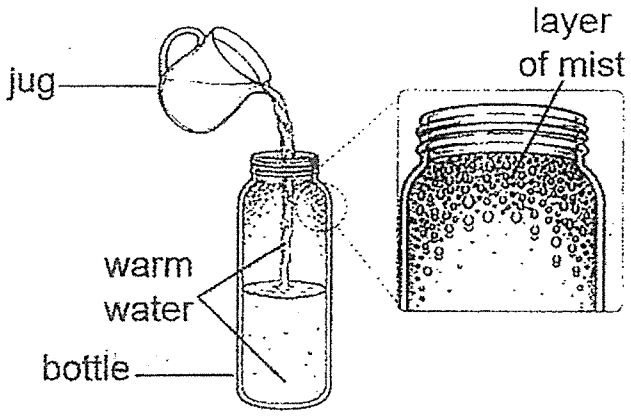
35 Mary poured warm water into her bottle. As she was pouring the warm water, she noticed that the upper inner surface of the bottle had a layer of mist formed over it.



(b) Explain why a layer of mist was observed on the inner surface of the bottle. (2m)

_____

_____

(c) After a while, Mary noticed that the layer of mist disappeared. Explain what happened to it. (1m)

_____

_____

3

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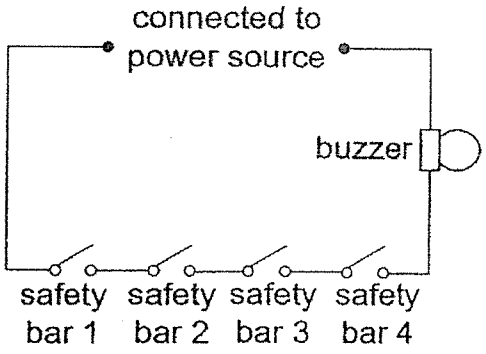
36 A roller coaster ride in the amusement park will only move when all the safety bars are locked. The safety bars act as switches for the electrical circuit.



The diagram below shows the electrical circuit for a roller coast ride.



(a) Will the ride be able to start when one of the safety bars is not locked? Explain your answer. (1m)

_____

_____

(b) The amusement park wants to add two more safety bars to the ride. How should the two additional bars be connected in the circuit? (1m)

_____

_____

(c) Explain why a buzzer is connected to the electrical circuit for the ride. (1m)

_____

(d) The amusement park wants to replace the buzzer with another device that serves the same purpose. Suggest one suitable device. (1m)

_____

_____

4

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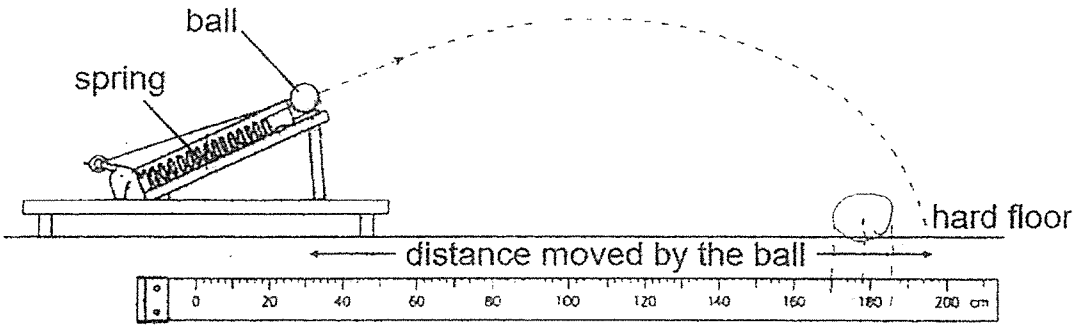
37 Ali used the launcher shown below to launch rubber balls of different masses. The spring in the launcher was compressed by the same distance before the ball was released.



The distance travelled by the ball was measured and recorded in the table below.

Mass of ball (g)	Distance travelled by the ball (cm)
10	120
20	118
30	94
40	88

(a) State the relationship between the distance travelled by the ball and the mass of the ball. (1m)

_____

_____

(b) Suggest why it was difficult to get accurate readings for the distance moved by the ball. (1m)

_____

_____

2

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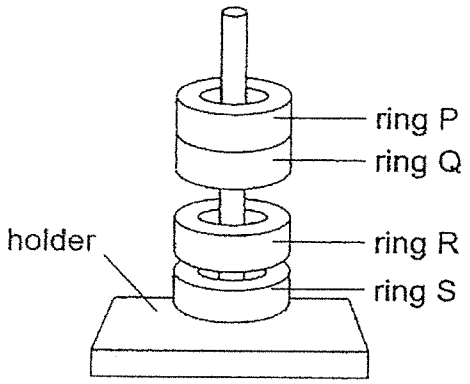
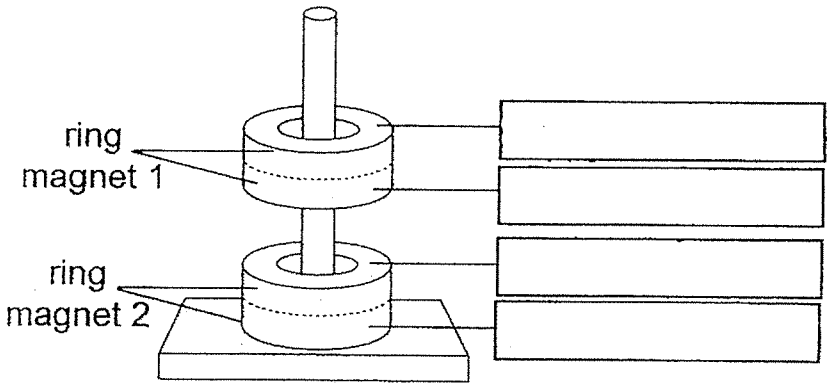
38 Four rings, P, Q, R and S, are placed one at a time on a holder. The rings may be ring magnets, iron rings or plastic rings.



(a) What is the least number of ring magnets for the observation above to be possible? Explain your answer. (2m)

(b) Sarah removed one ring magnet and placed a steel clip near it. What will she observe? Explain your answer. (1m)

(c) Sarah removed two of the rings, leaving behind two ring magnets in the holder. Label the poles of the magnets, using N and S, in the diagram below. (1m)



4

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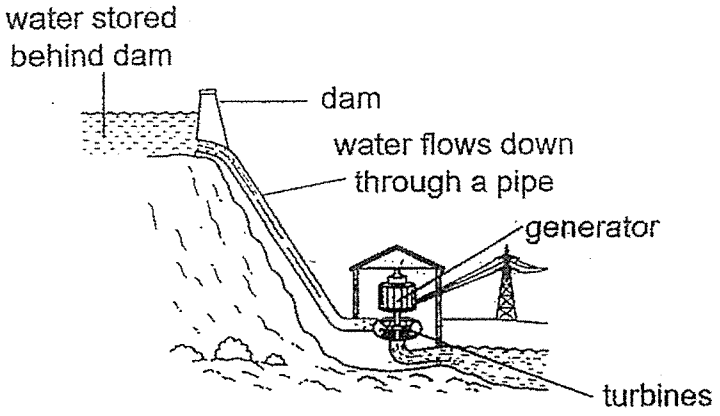
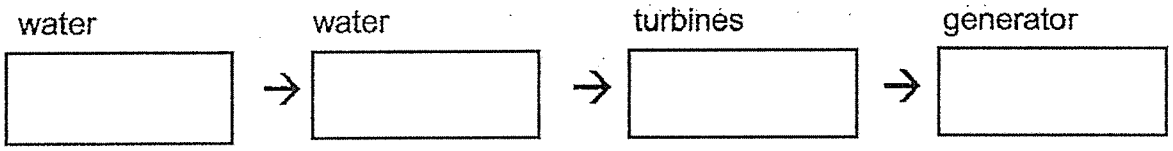
39 Hydroelectric dams are usually built in mountainous areas where large amounts of water can be stored at a high level behind the dam. When the dam is opened, the water rushes down through pipes and turns turbines to generate electricity.

The diagram below shows water flowing from a high level through turbines before electricity is produced.



(a) Fill in the boxes to show the energy conversion when the water flows from the hydroelectric dam. (1m)



(b) During a period of low rainfall, less electrical energy was produced by the hydroelectric dam. Using energy conversion, explain why this happened. (2m)

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3

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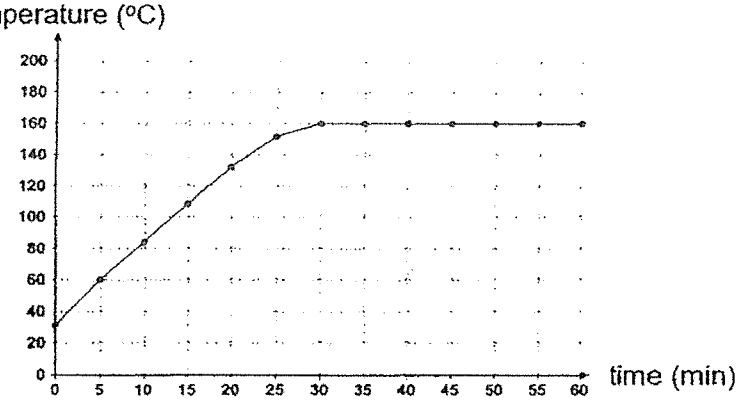
40(a) State what is temperature. (1m)

_____

An oven was switched on and set to a fixed temperature. A thermometer was placed inside the oven to record the temperature at 5-minute intervals, starting from the moment the oven was switched on.

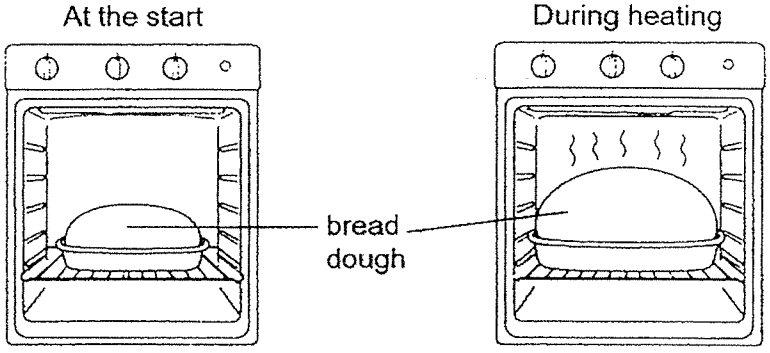
The graph below shows how the temperature changes with time.



(b) Based on the graph, what was the temperature setting of the oven? (1m)

_____

A baker knead a piece of bread dough before placing the bread dough in an oven. Air is allowed to enter the bread dough during kneading. During heating, the dough increased in size. After the oven was switched off, the dough returned to its original size.



(c) Explain why the bread dough increased in size during heating and returned to its original size after the oven was switched off. (2m)

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End of Booklet B

4

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YEAR : 2026
LEVEL : PRIMARY 6
SCHOOL : RED SWASTIKA SCHOOL
SUBJECT : SCIENCE
TERM : PRELIMINARY EXAMINATION

(BOOKLET A)

Q1	2	Q2	3	Q3	3	Q4	1	Q5	1
Q6	1	Q7	3	Q8	4	Q9	2	Q10	2
Q11	2	Q12	4	Q13	4	Q14	4	Q15	2
Q16	3	Q17	4	Q18	3	Q19	2	Q20	3
Q21	1	Q22	3	Q23	1	Q24	4	Q25	2
Q26	4	Q27	1	Q28	1	Q29	4	Q30	3

(BOOKLET B)

Q31	a)	Respiratory system and circulatory system.
	b)	Water and food (sugar).
	c)	As the number of organism A increases, the mass of fruits harvested decreases. More organisms feed on the food in the food-carrying tubes, so less food is transported to the fruits for growth.
Q32	a)	The place where an organism lives.
	b)	From January to March, as the number of monkeys increased, the number of fruits decreased. From March to September, as the number of monkeys decreased, the number of fruits increased.
	c)	With fewer trees, less photosynthesis takes place and less carbon dioxide is removed from the air. The increased carbon dioxide traps more heat, leading to global warming.
Q33	a)	Structural adaptation.
	b)	It makes insects slip and fall into the pitcher, where they are trapped and digested for nutrients.
	c)	Crab spider and birds.
	d)	It releases oxygen during photosynthesis for the bird to breathe.
	e)	Add a second arrow from the fly to the gecko: fly → gecko.
Q34	a)	To find out how the distance between the torchlight and the beaker affects the volume of gas produced by the water plants.
	b)	Process: photosynthesis. Gas collected: oxygen.
	c)	As the distance between the torchlight and the beaker increases, the volume of oxygen collected decreases. The light intensity is lower farther from the torchlight, so the rate of photosynthesis decreases and less oxygen is produced.

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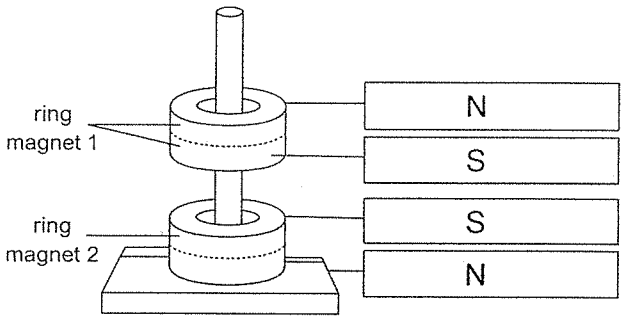
Q35	a)	Measure and record the mass of the deflated beach ball using the electronic balance. Inflate the same beach ball and measure its mass again. If the inflated ball has a greater mass, the difference is the mass of the air added.
	b)	Some warm water evaporated into water vapour. The water vapour reached the cooler inner surface of the bottle, lost heat and condensed into tiny water droplets that formed the mist.
	c)	The water droplets gained heat and evaporated into water vapour.
Q36	a)	No. An unlocked safety bar leaves its switch open, so the circuit is incomplete and no electric current flows.
	b)	Connect both additional safety-bar switches in series with the existing switches.
	c)	The buzzer sounds only when all the safety bars are locked, signalling that the ride is ready to start.
	d)	A light bulb.
Q37	a)	As the mass of the ball increases, the distance travelled by the ball decreases.
	b)	The ball could bounce or roll after striking the hard floor, making its exact first landing point difficult to identify.
Q38	a)	Three. Rings Q, R and S must be ring magnets. Like poles must face across both gaps so Q repels R and R repels S; ring P need not be a magnet.
	b)	The steel clip will be attracted to the ring magnet because steel is a magnetic material.
	c)	
Q39	a)	Gravitational potential energy → kinetic energy of the water → kinetic energy of the turbines → electrical energy.
	b)	Less water was stored behind the dam, so it had less gravitational potential energy. Hence, less kinetic energy was transferred to the turbines and less electrical energy was produced by the generator.
Q40	a)	Temperature is a measure of how hot or cold an object is.
	b)	160°C.
	c)	During heating, the air trapped in the dough gained heat and expanded, making the dough larger. After the oven was switched off, the air lost heat and contracted, so the dough returned to its original size.

END

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