PEI CHUN PUBLIC SCHOOL

PRIMARY 5

END-OF-YEAR EXAMINATION 2025

SCIENCE

(BOOKLET A)

Additional Materials: Optical Answer Sheet (OAS) Total Time for Booklets A and B: 1 h 45 min

Name: _____ ( )

Class: Primary 5 /( ) _____

Date: 23 October 2025

Science Teacher: _____

INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers on the Optical Answer Sheet (OAS) provided.

This booklet consists of **19** printed pages including the cover page.

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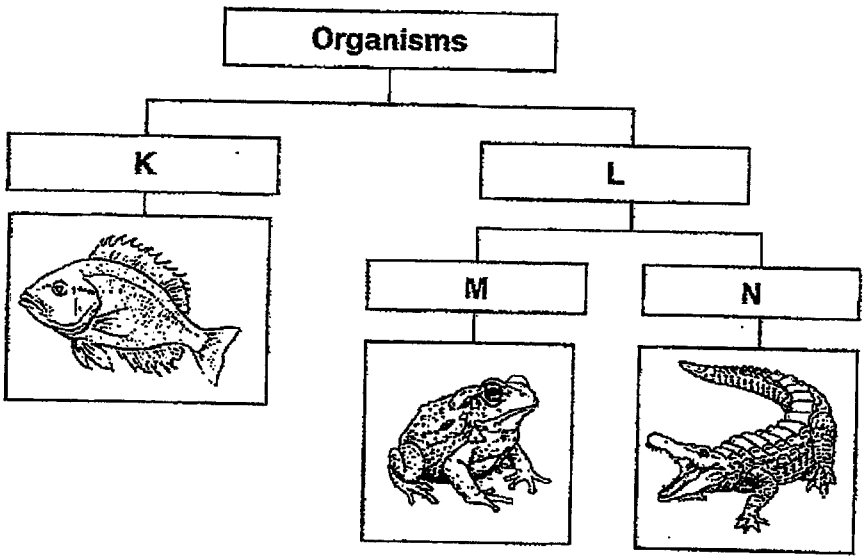
For each question from 1 to 30, four options are given. One of them is the correct answer. Make a choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

[60 marks]

1 Which statement about ferns and mushrooms is correct?

(1) Both grow only on trees.
(2) Both reproduce from spores.
(3) Both are non-flowering plants.
(4) Both cannot make their own food.

2 Study the chart below.

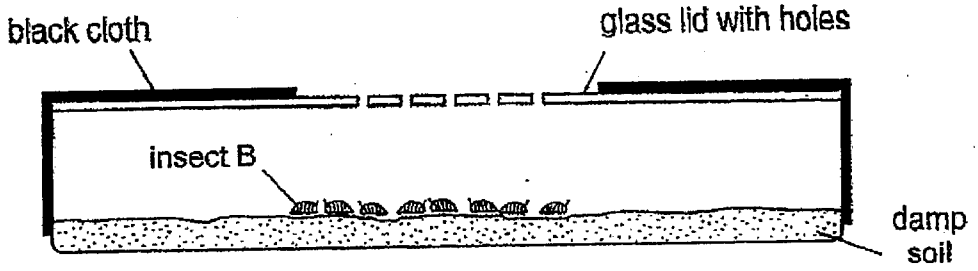


What are the characteristics represented by K and N?

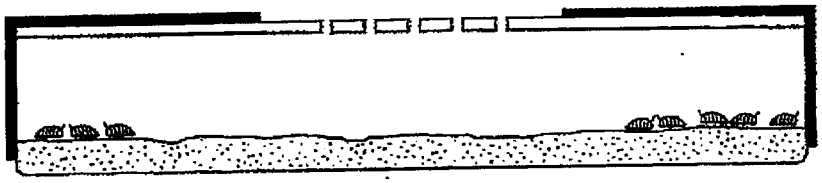
	K	N
(1)	has gills	no gills
(2)	lays eggs	has scales
(3)	has gills	has scales
(4)	has scales	no gills

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3 Yati placed some insects in the middle of a glass container as shown.



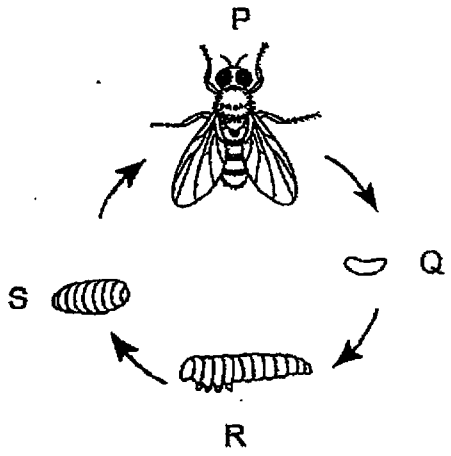
She left the tank under bright light. The diagram below shows what she observed after 15 minutes.



Based on her observation, which is correct conclusion?

(1) Living things grow.
(2) Living things need air.
(3) Living things can reproduce.
(4) Living things respond to changes.

4 The diagram below shows the life cycle of an insect.

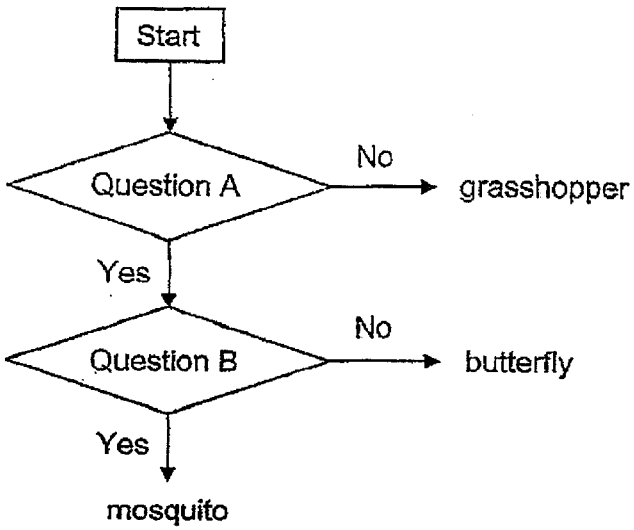


At which two stages of the life cycle of the insect does it not need to feed on any food?

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

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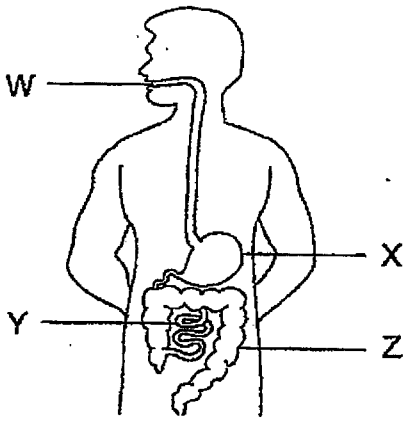
5 Nadia classified three animals as shown.



What are questions A and B?

	Question A	Question B
(1)	Does it have a 3-stage life cycle?	Does it lay eggs in water?
(2)	Does it have a 3-stage life cycle?	Does the young look like the adult?
(3)	Does it have a 4-stage life cycle?	Does it lay eggs in water?
(4)	Does it have a 4-stage life cycle?	Does the young look like the adult?

6 The diagram below shows the human digestive system.

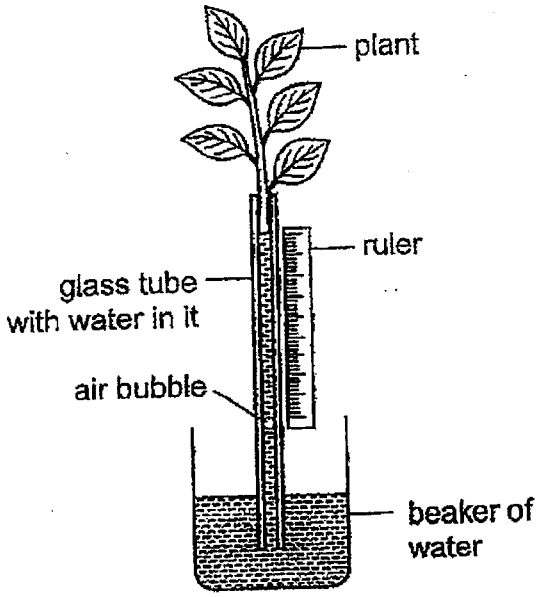


Which of the following shows where digestion of food and absorption of water take place?

	Digestion of food	Absorption of water
(1)	X, Y and Z	Y
(2)	W, X and Y	Z
(3)	W, X and Z	Y
(4)	W, X and Z	Z

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7 Rebacca used the set-up below to measure the distance moved by an air bubble when water is taken in by a plant.



She conducted four experiments. She used the same type of plant with leaves of similar size. Her results are shown below.

Experiment	Number of leaves on the plant	Temperature of the room (°C)	Distance moved by the air bubble in 1 hour (cm)
A	2	20	1
B	2	35	1.5
C	4	20	1.5
D	4	35	3

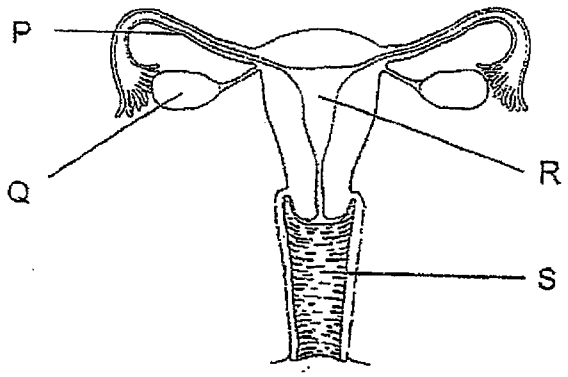
Which two experiments support the hypothesis: "A plant loses more water when it has more leaves."?

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

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Use the information below to answer Questions **8** and **9**.

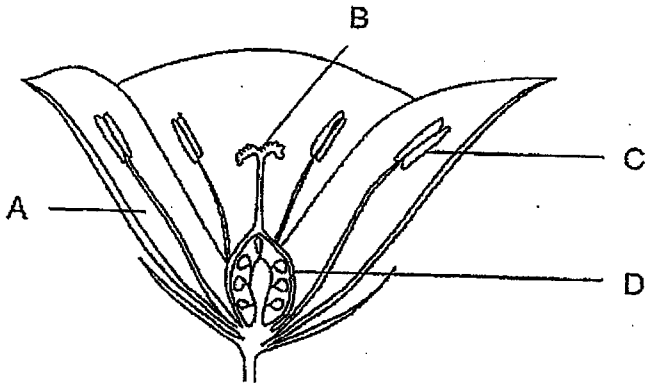
The diagram below shows a human reproductive system.



8 In which part would the fertilised egg develop into a baby?

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

9 The diagram below shows parts of a flower.

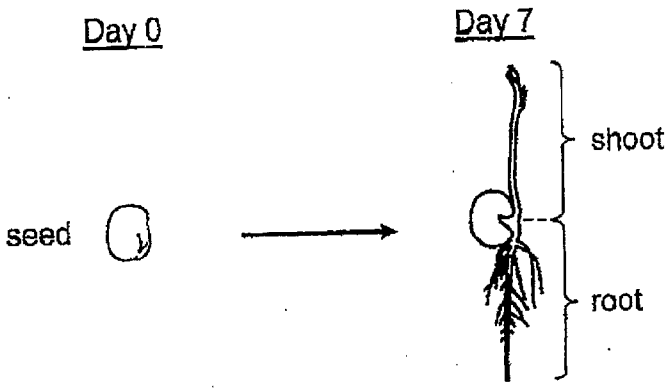


Which part has the same function as part Q?

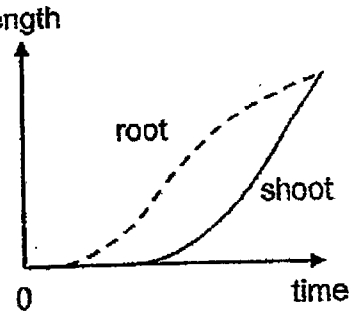
(1) A
(2) B
(3) C
(4) D

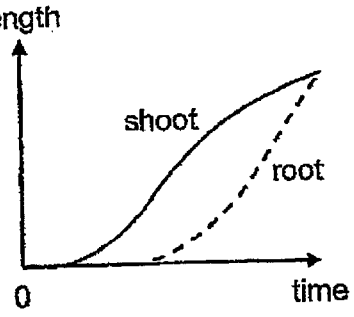
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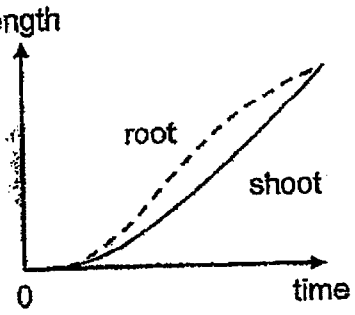
10 A seed grew into a seedling as shown after a few days.

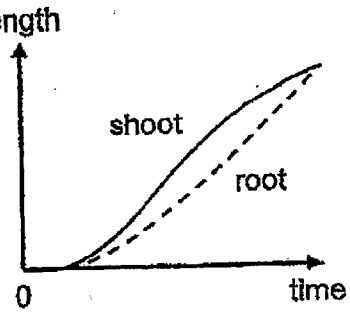


Which graph correctly shows how the lengths of the shoot and root of the seedling changed with time?

(1)


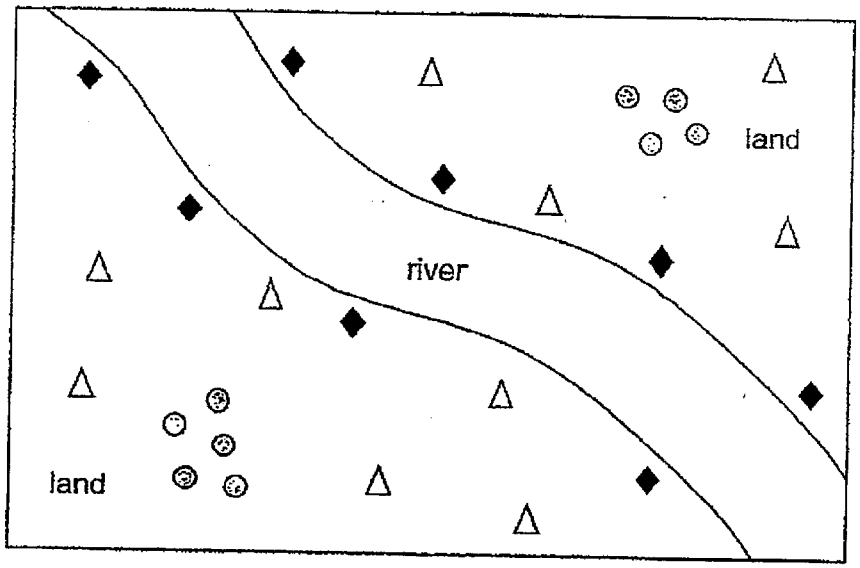
(2)


(3)


(4)


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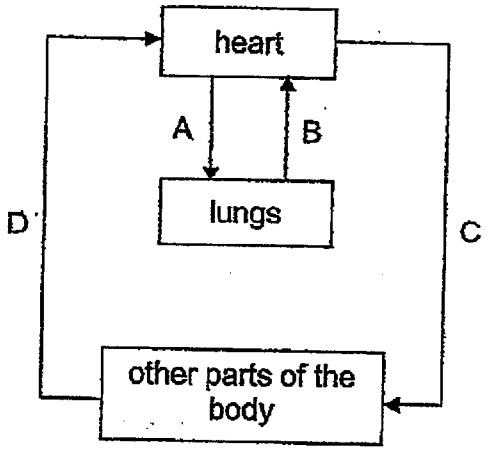
11 The diagram shows an area where three types of plants are growing.



How are the seeds of each type of plant most likely dispersed?

	◆	△	⊛
(1)	splitting	animal	water
(2)	water	animal	splitting
(3)	water	splitting	animal
(4)	animal	splitting	water

12 The diagram below shows the direction of blood flow in some parts of the human body.



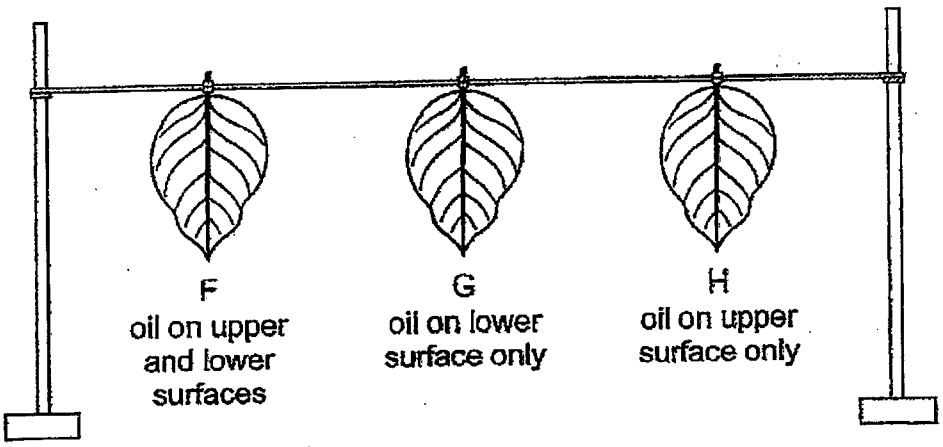
Which is correct about the blood flowing in the blood vessels?

(1) There is less carbon dioxide in A than in C.
(2) There is more carbon dioxide in B than in A.
(3) There is more carbon dioxide in C than in D.
(4) There is more carbon dioxide in D than in B.

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13 Catharine set up an experiment using three similar leaves, F, G and H. These leaves have more stomata on their lower surfaces than on their upper surfaces.

She coated some surfaces of the leaves with oil that did not drip. The leaves were hung up as shown below and placed under bright sunlight for three hours.



After five hours, each leaf was weighed again, and the loss of mass was recorded.

Which of the following correctly shows leaves F, G and H, arranged in order of decreasing loss of mass?

	biggest loss in mass ⟶ smallest loss in mass		
(1)	F	G	H
(2)	G	H	F
(3)	F	H	G
(4)	H	G	F

14 The table shows four gases found in the air that are breathed in and breathed out by a human.

Gas	Air taken in (%)	Air given out (%)
nitrogen	78	78
oxygen	21	16
carbon dioxide	less than 1	4
water vapour	less than 1	2

Based on the information given, which statement is **not** correct?

(1) Water is lost through breathing.

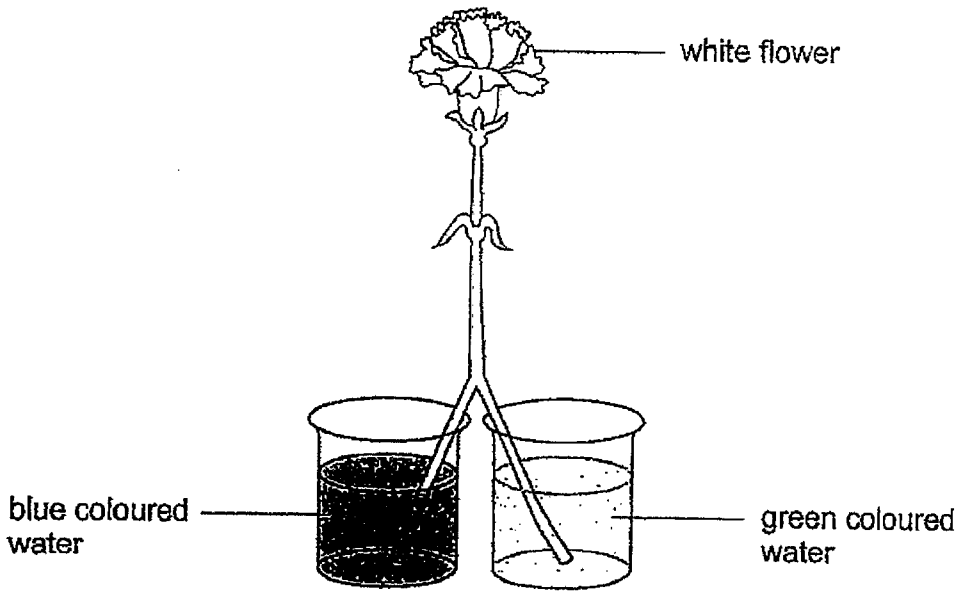
(2) Nitrogen enters the respiratory system.

(3) All the oxygen that enters the lungs goes into the blood.

(4) Carbon dioxide produced by the body is given out during breathing.

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15 Larissa cut the lower stem of a white flower into two equal parts. She placed them into the containers with different coloured water as shown.



After a short while, she noticed that some parts of the flower turned green, some turned blue, while the rest remained white.

Laverne made three statements.

A The stem transported different coloured water to the flower.

B No coloured water was transported to the flower parts that remained white.

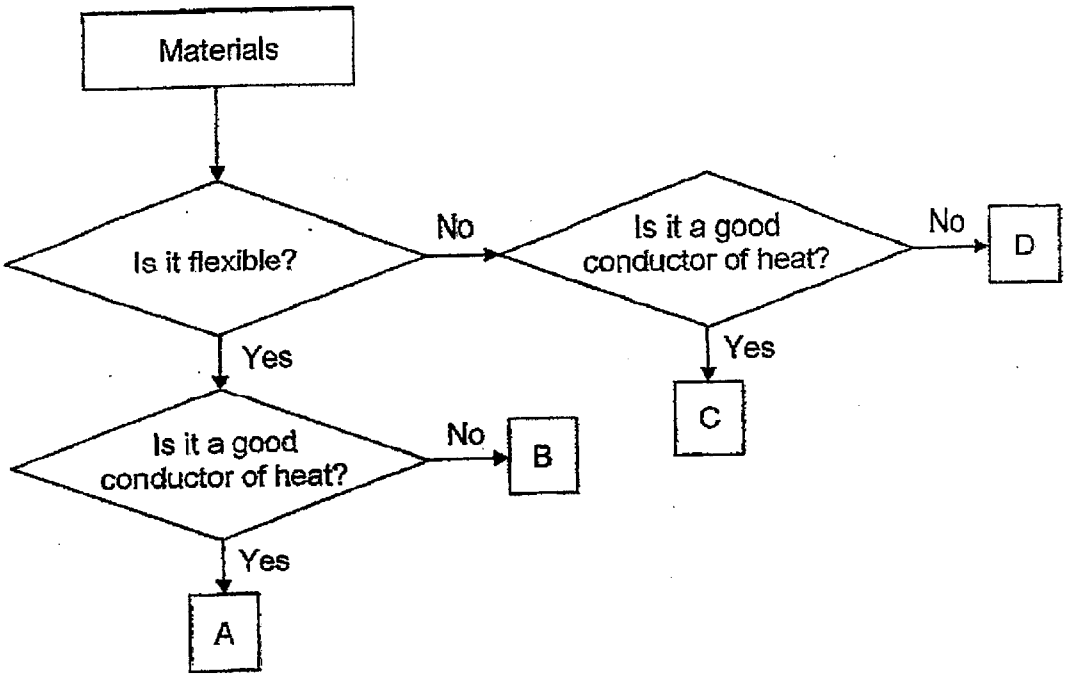
C There were no water-carrying tubes in the flower parts that remained white.

Which statements can be concluded from her observations?

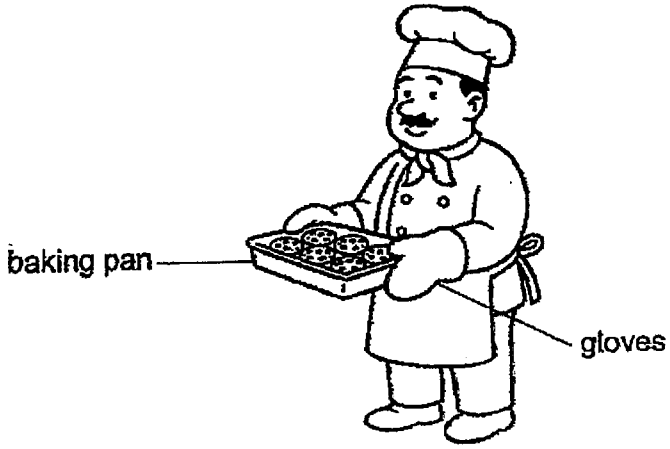
(1) C only
(2) A and B only
(3) A and C only
(4) A, B and C only

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16 Study the chart below.



A baker puts on gloves when holding a hot baking pan.

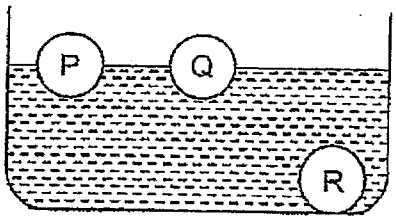


Which materials are most suitable for making the baking pan and gloves?

	Baking pan	Gloves
(1)	A	B
(2)	B	D
(3)	C	B
(4)	D	A

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17 Arjun placed three solids made of materials P, Q and R into a container of water. His observation is shown below.



He made two statements:

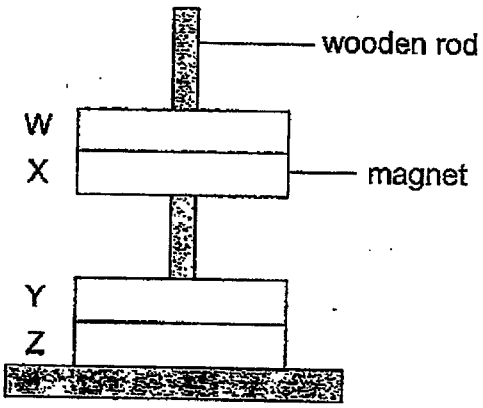
A "P and Q are the same material."

B "Q and R are different materials."

Which statement(s) can be concluded from his observation?

(1) A only
(2) B only
(3) A and B
(4) Neither A nor B

18 In the set-up below, W, X, Y and Z are four rings which pass through a smooth wooden rod. X is a magnet.

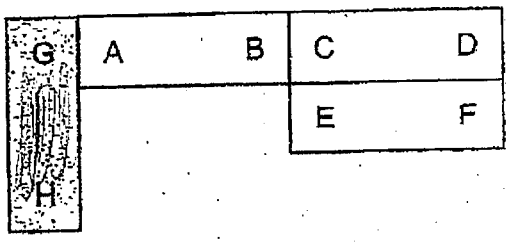


Which one of the following is not possible?

	W	Y	Z
(1)	plastic	steel	steel
(2)	steel	magnet	steel
(3)	plastic	magnet	plastic
(4)	plastic	magnet	magnet

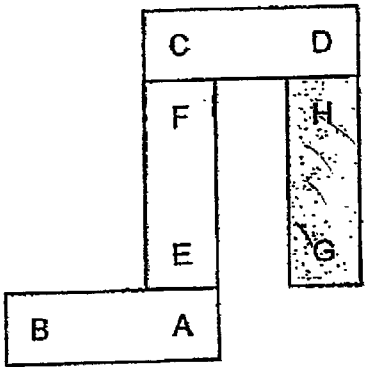
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19 Three bar magnets, AB, CD and EF, and an iron bar GH can be arranged as shown in the diagram below.

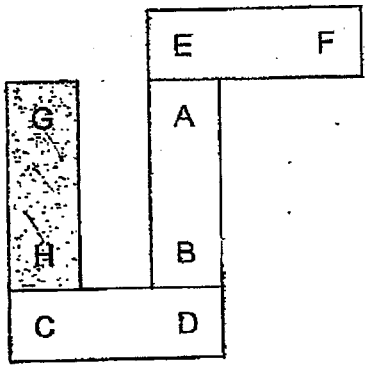


Which of the following arrangements of the magnets is possible?

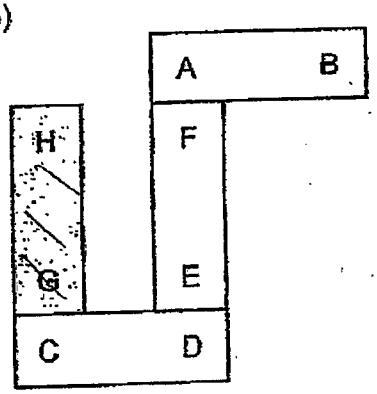
(1)



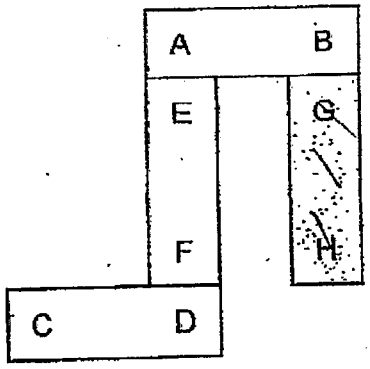
(2)



(3)



(4)

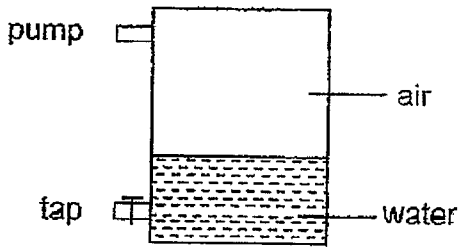


20 Which property will identify a substance as a solid?

(1) It has mass.
(2) It occupies space.
(3) It has a definite shape.
(4) It has a definite volume.

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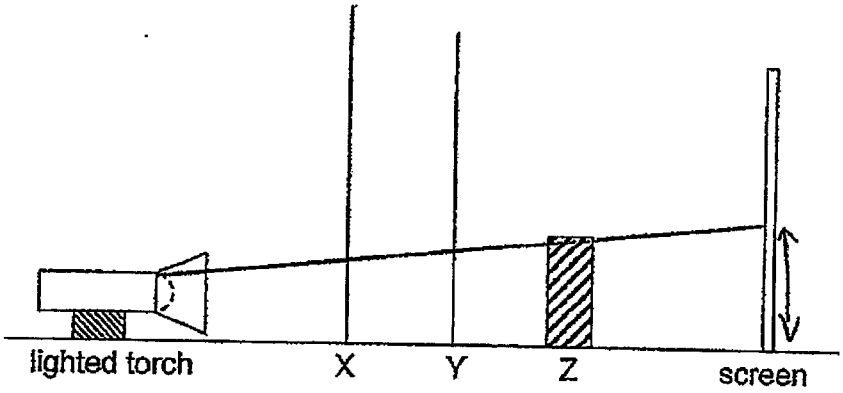
21 An experiment was set up using a sealed container which holds 40 cm^3 of water and 80 cm^3 of air as shown below. 30 cm^3 of water was removed from the container through the tap and 10 cm^3 of air was then added using the pump.



What would be the final volume of the air in the container?

(1) 80 cm^3
(2) 90 cm^3
(3) 110 cm^3
(4) 120 cm^3

22 Mark set up an experiment as shown below.



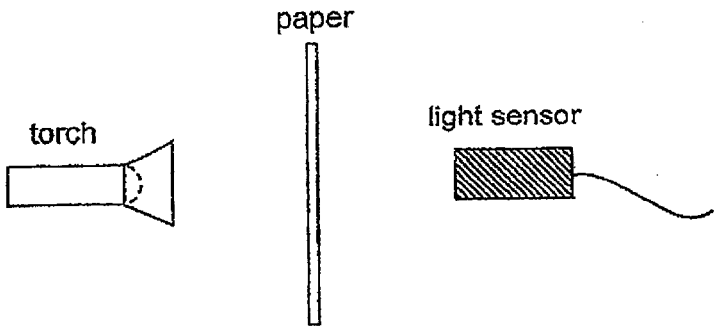
He placed a wooden block at position Z. He then measured the height of the shadow formed on the screen and repeated the experiment with the same wooden block at positions X and Y.

Which of the following best shows the height of the shadows formed on the screen when the wooden block was placed at positions X, Y and Z?

	Height of shadow formed on screen (cm)		
	X	Y	Z
(1)	9	17	20
(2)	20	17	9
(3)	9	17	9
(4)	17	20	9

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23 Yuling had three different types of paper, A, B and C. She shone a torch at each paper and recorded the amount of light passing through with a light sensor for 15 seconds.

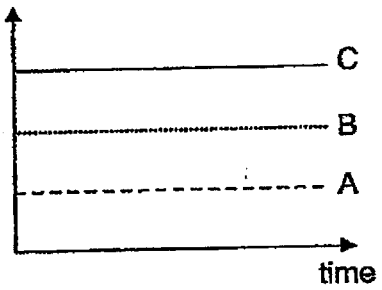


Her observations are shown below.

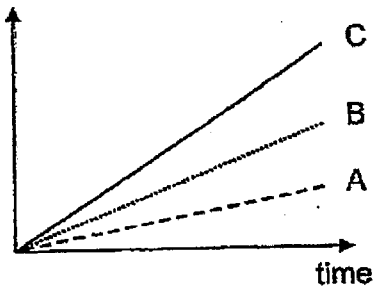
Paper	Amount of light passed through
A	very little light
B	some light
C	most light

Which graph shows her results correctly?

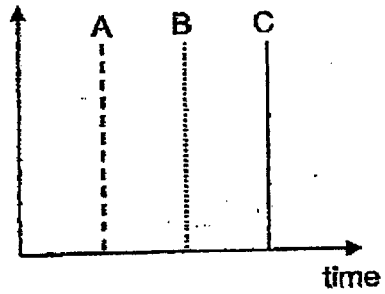
(1) amount of light



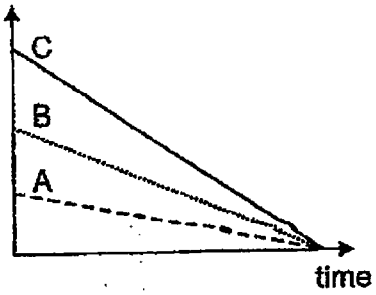
(2) amount of light



(3) amount of light

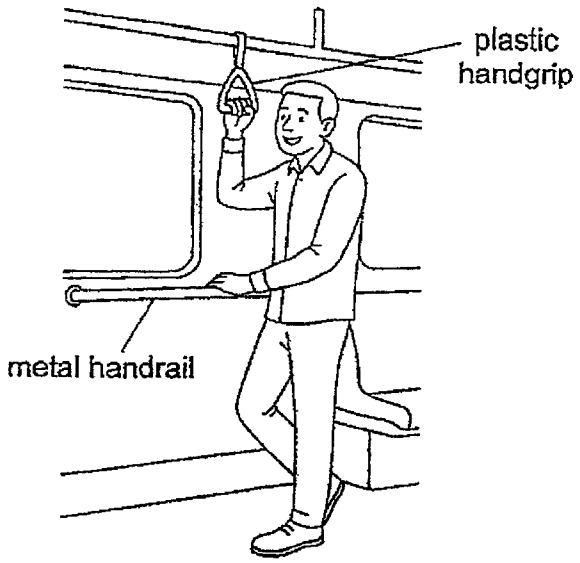


(4) amount of light



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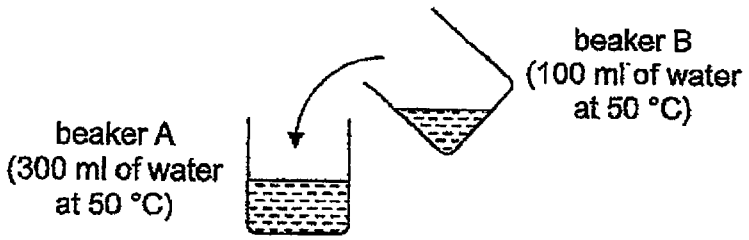
24 Alex was holding on to the plastic handgrip and metal handrail in a train. His hand felt that the metal handrail was cooler than the plastic handgrip.



Which of the following best explains why his hand felt that the metal handrail was cooler?

(1) The plastic handgrip lost heat slower to Alex's hand.
(2) The metal handrail conducted heat faster to Alex's hand.
(3) The plastic handgrip gained heat slower from Alex's hand.
(4) The metal handrail had a lower temperature than the plastic handgrip.

25 Ginn had two beakers of water of different volumes but at the same temperature as shown below. She added all the water from beaker B into beaker A.



The volume of water in beaker A increased to 400 ml. She measured the temperature of the water immediately.

Which of the following correctly describes the water in beaker A?

	Temperature of water	Amount of heat in water
(1)	remained the same	increased
(2)	remained the same	remained the same
(3)	increased	increased
(4)	increased	remained the same

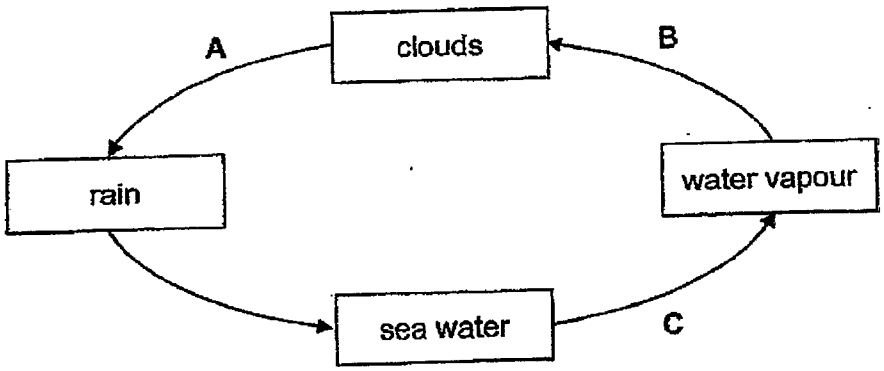
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26 Substance X is a solid at 110 °C and a liquid at 420 °C.

Which of the following is possible?

	Melting point of X (°C)	Boiling point of X (°C)
(1)	80	400
(2)	80	500
(3)	150	400
(4)	150	500

27 The diagram below shows the water cycle.

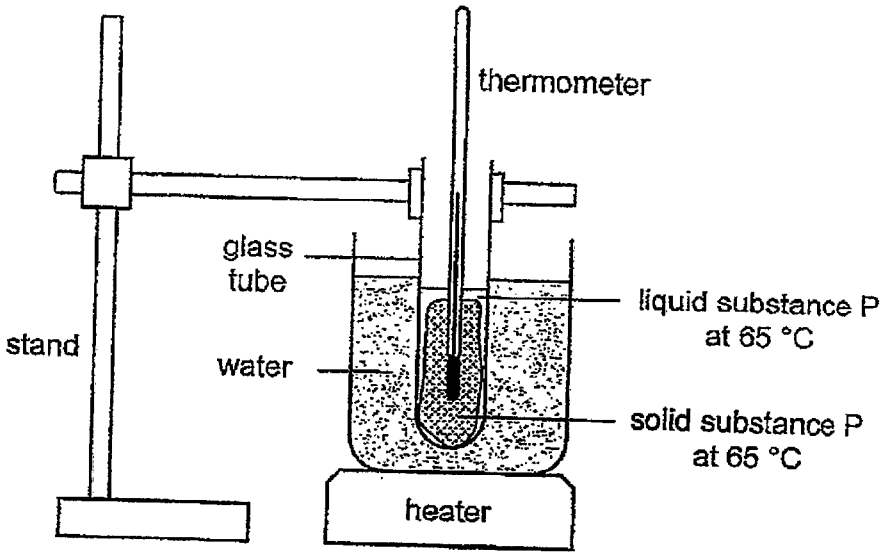


Which of the following correctly shows where evaporation and condensation take place?

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

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28 Jim heated some solid substance P using the set-up shown below. He observed that some liquid substance P appeared in the glass tube at 65 °C.



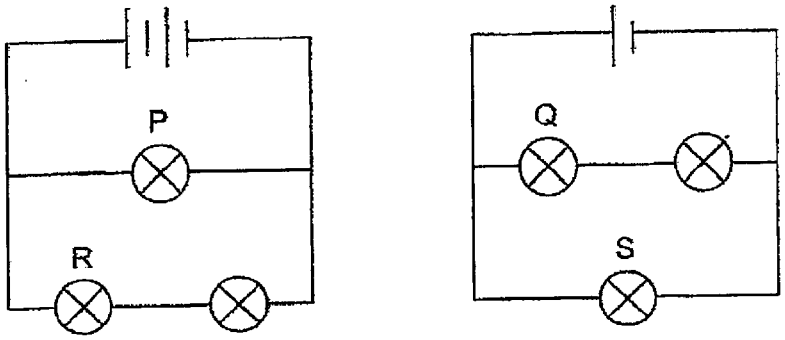
Both the solid and liquid substance P in the glass tube were at 65 °C.

What would happen to temperature of the solid after a while? Why?

	Temperature of solid	Reason
(1)	decrease	The liquid lost heat and froze.
(2)	remain unchanged	The solid did not gain heat.
(3)	increase	The solid gained heat and melted.
(4)	remain unchanged	The solid gained heat and melted.

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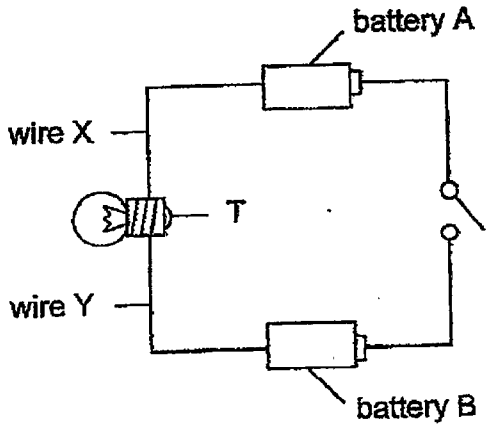
29 Identical batteries and bulbs are used to set up the two circuits shown.



Which one of the following correctly shows the brightness of bulbs, P, Q, R and S?

	Dimmest bulb	Brightest bulb
(1)	S	P
(2)	Q	P
(3)	R	Q
(4)	R	P

30 Gregory set up the circuit below with a working bulb. The bulb did not light up when he closed the switch.



Which change(s) will light up the bulb?

	connect X to T	connect Y to T	turn battery A around	turn battery B around
(1)	✓	✓	✗	✗
(2)	✓	✗	✓	✗
(3)	✗	✓	✗	✗
(4)	✗	✗	✓	✓

Key
✓: yes
✗: no

End of Section A

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PEI CHUN PUBLIC SCHOOL

PRIMARY 5

END-OF-YEAR EXAMINATION 2025

SCIENCE

(BOOKLET B)

Total Time for Booklets A and B: 1 h 45 min

Name: _____ ( )

Class: Primary 5 /( ) _____

Date: 23 October 2025

Science Teacher: _____

Parent's Signature: _____

SECTION A	60
SECTION B	40
TOTAL	100

INSTRUCTIONS TO CANDIDATES

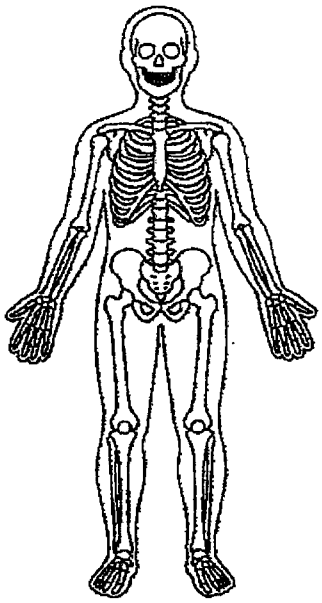
1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.

This booklet consists of 13 printed pages including the cover page.

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For questions 31 to 41, write your answers in this booklet. The number of marks available is shown in brackets [ ] at the end of each question or part question. [40 marks]

31 The diagram shows a human body system.



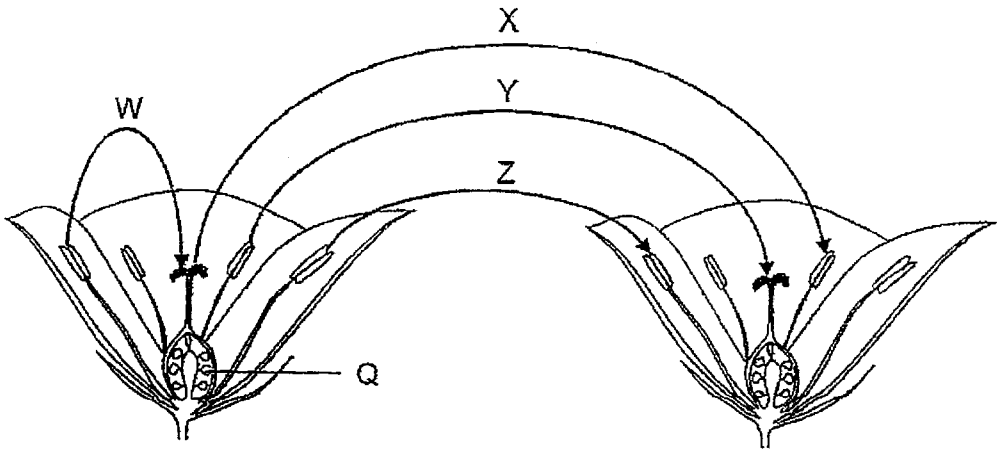
(a) Identify this system. [1]

(b) State **two** functions of this system. [2]

SCORE	

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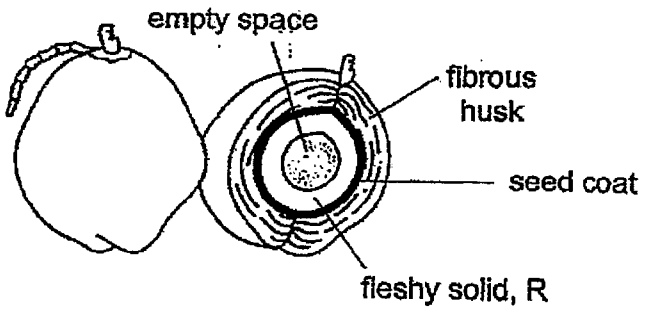
32 Study the diagram below.



(a) Which arrow(s), W, X, Y or Z, show(s) pollination taking place? [1]

(b) Name the process that takes place in Q. [1]

(c) The diagram below shows some parts of a coconut fruit.



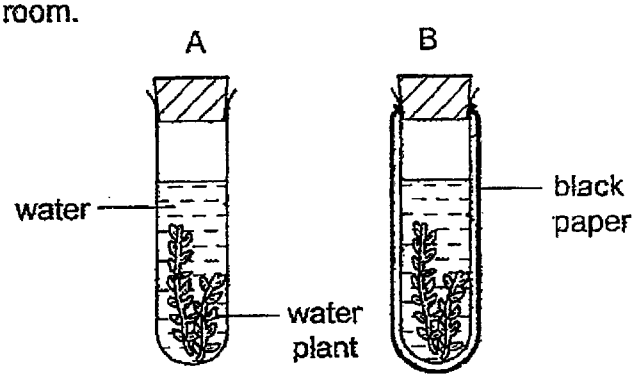
(i) Explain how a characteristic of the coconut fruit as shown in the diagram helps in its dispersal. [1]

(ii) Explain how solid R in the coconut fruit helps the young plant to grow during germination before its leaves develop. [1]

SCORE	

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33 Dinah conducted an experiment using two identical tubes as shown. She left the tubes in a well-lit room.



After a few hours, a drop of liquid Y was added to each tube. When liquid Y was added, the colour of water changed according to the amount of carbon dioxide present.

Amount of carbon dioxide in water	less than normal	normal	higher than normal
Colour of water with liquid Y	purple	red	yellow

(a) Dinah observed that the water with liquid Y in tube A turned purple.
Explain her observation. [1]

_____

_____

(b) The water plant in tube A produced some bubbles.
Name the gas in the bubbles. [1]

_____

(c) State the colour of the water with liquid Y in tube B.
Explain your answer. [2]

Colour of water with liquid Y in tube B: _____

Explanation: _____

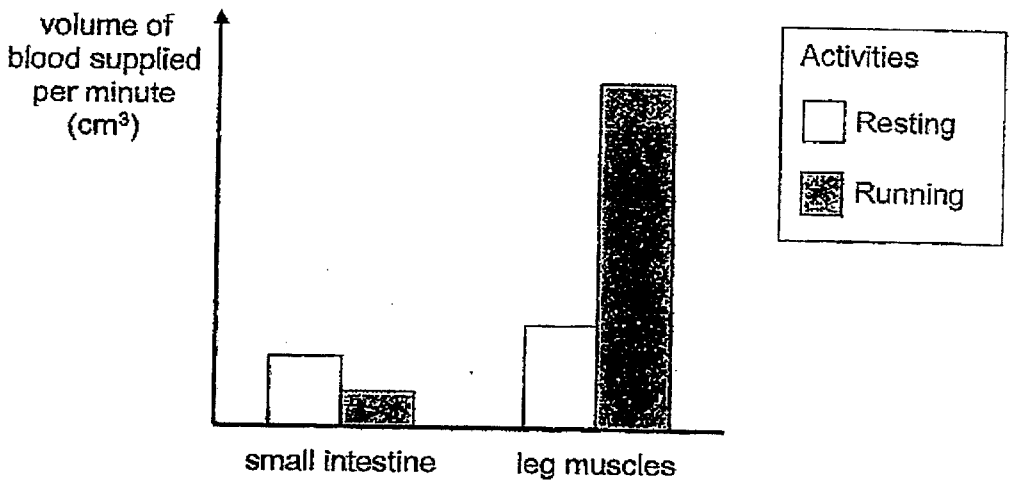
_____

_____

SCORE	

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34 The graph below shows the volume of blood supplied per minute from the heart to some parts of the body when a person is resting and running.



(a) Explain why the volume of blood supplied to the leg muscles is higher when a person is running. [2]

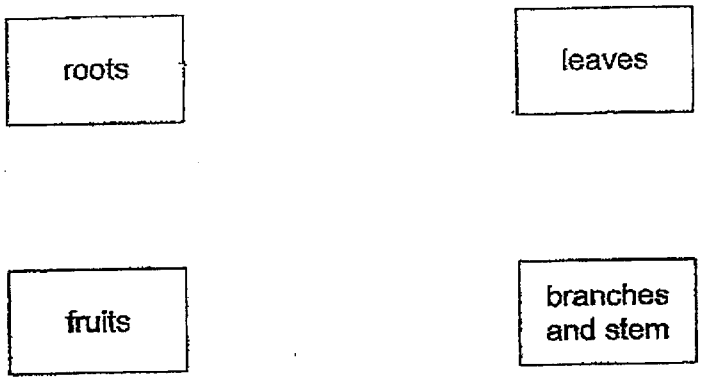
(b) Using the information given, explain how the absorption of digested food is affected when a person is running. [2]

SCORE

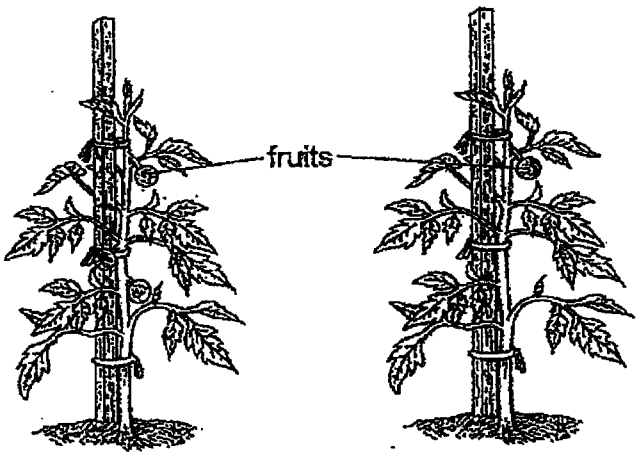
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35 The diagram below shows the different parts of a plant.

(a) Use a pencil to complete the diagram by drawing arrows (⟶) to show the direction of how food is transported in a plant. [1]

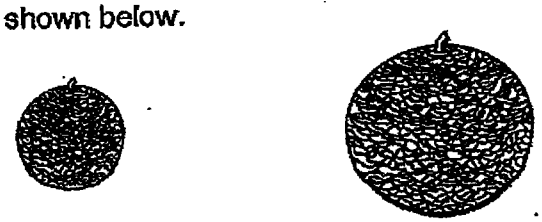


(b) A farmer had two similar melon plants, X and Y. Each of the plants had three small fruits. He removed two fruits from plant Y as shown below.



plant X plant Y

After some time, he observed that the fruit on plant Y was bigger than the fruits of plant X as shown below.



fruit on plant X fruit on plant Y

Suggest why the fruit on plant Y was bigger. [1]

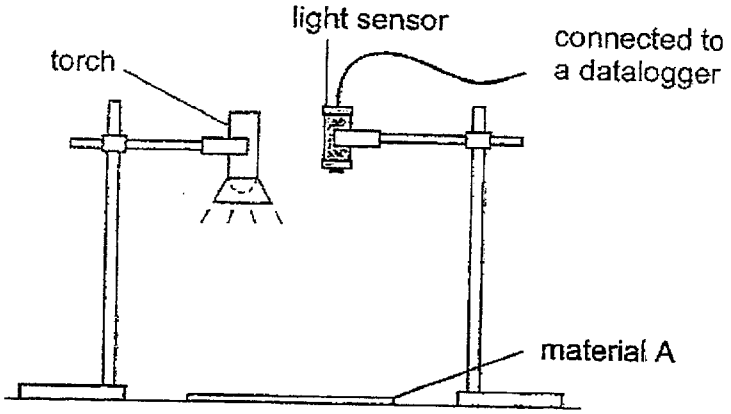
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SCORE	

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36 Thomas conducted an experiment in a dark room using three similar sheets made of different materials, A, B and C. He shone the light from the torch onto material A as shown below and recorded the amount of light detected by the light sensor.



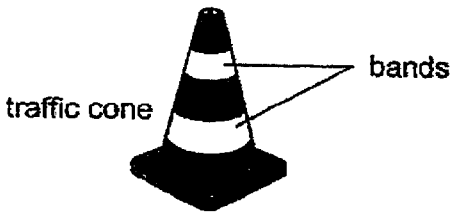
He repeated his experiment with materials B and C. His results are shown below.

Material	A	B	C
Amount of light detected by light sensor (unit)	680	950	120

(a) Describe how light from the torch was able to reach the light sensor. [1]

(b) Thomas used the same torch and light sensor throughout his experiment. State a variable that Thomas should keep constant for his experiment. [1]

(c) The diagram below shows a traffic cone. Traffic cones are sometimes placed on the roads to warn drivers that they need to slow down or be careful.

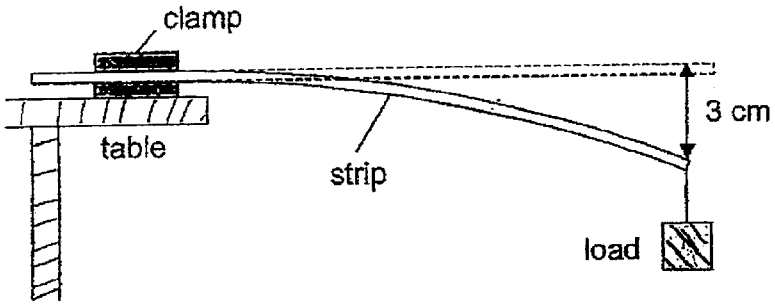


Based on Thomas' results, which material, A, B or C, should be used to make the bands on the traffic cones so that drivers could see the cones most easily at night? Explain your answer. [1]

SCORE	

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37 Jean used the set-up shown below to compare a property of two strips made of different materials. She hung a load on one end of a strip made of material W so that it would move down by 3 cm.

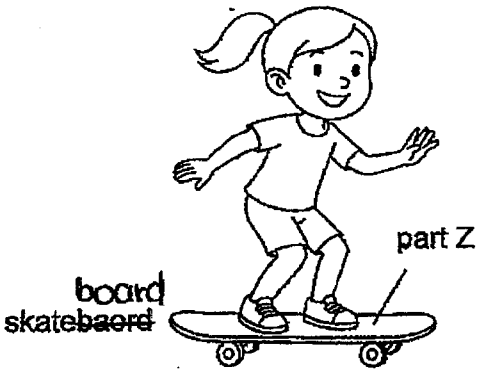


She repeated the experiment with a similar strip made of material X. Her results are shown below.

Material	Mass of load needed to move the end of strip down by 3 cm (kg)
W	20
X	5

(a) State the property of material that Jean was trying to compare in her experiment. [1]

(b) The diagram below shows a girl on a skateboard.



Based on Jean's experiment, which material, W or X, is more suitable to make part Z of the skateboard? Explain your answer. [1]

SCORE

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(c) Devi wanted to conduct another experiment using Jean's set-up. She wanted to find out how the thickness of a strip affects the mass of load needed to move its end down by 3 cm.

What two changes to Jean's experiment should Devi make? [2]

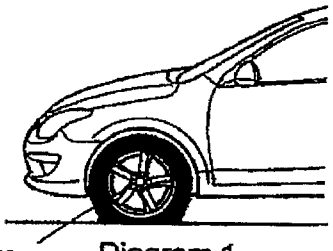
Change 1: _____

_____

Change 2: _____

_____

38 Ali's car had a flat tyre as shown in Diagram 1. After he pumped air into the tyre, it became fully inflated as shown in Diagram 2.



flat tyre Diagram 1

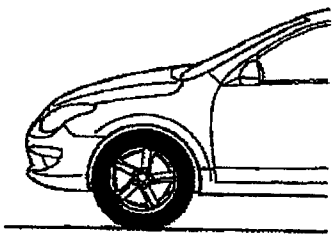


Diagram 2

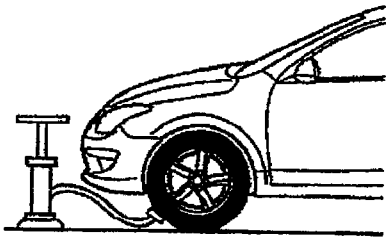
(a) State two properties of air that caused the tyre to be fully inflated. [2]

_____

_____

_____

(b) Ali continued to pump more air into the fully inflated tyre. He observed that the size of the tyre remained the same.



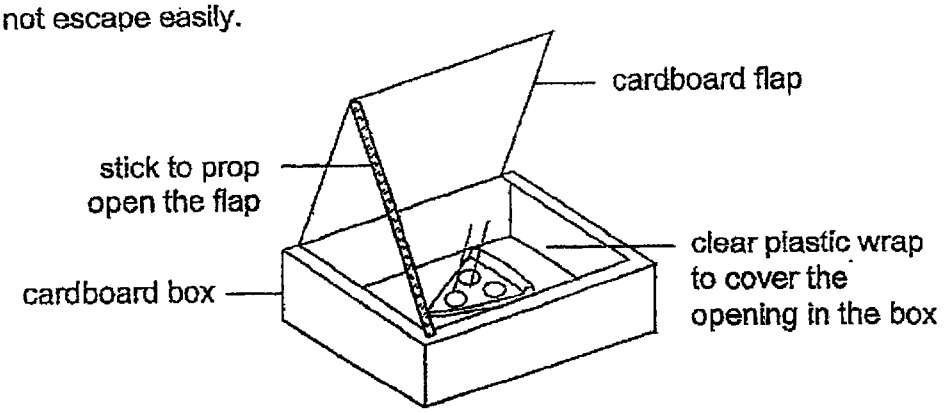
State how the mass of the fully inflated tyre would change after more air was pumped into it. [1]

_____

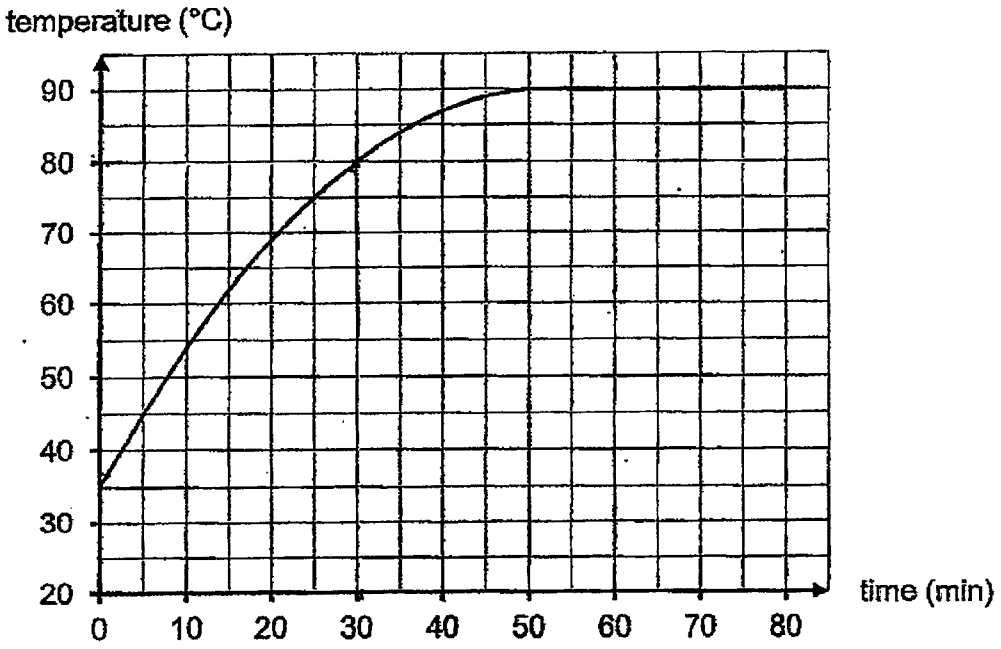
SCORE	

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39 Natasha built a model of a solar oven as shown. When the oven was placed under the sun, the food inside heated up quickly because the heat that entered the oven could not escape easily.



Natasha wanted to find out how the temperature inside her solar oven changed over time. She started recording the time immediately after placing the oven under the sun and measured the temperature of the air inside the oven at regular intervals. Her results are shown below.



(a) State what is temperature. [1]

_____

_____

(b) State the temperature of the surroundings. [1]

_____

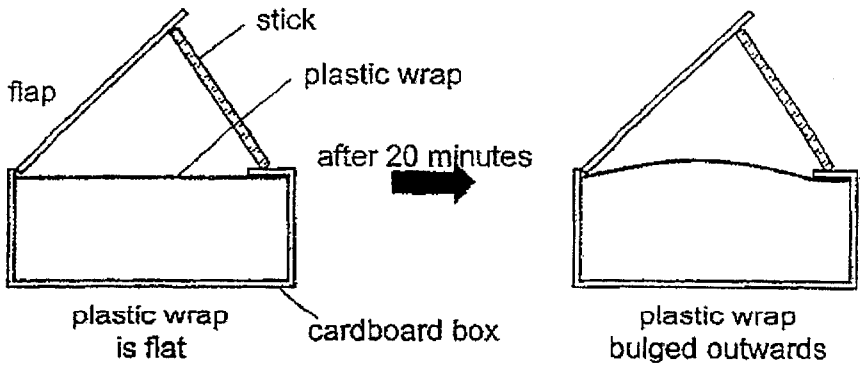
(c) State the time taken for the temperature to reach 80 °C. [1]

_____

SCORE	

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(d) The diagram below shows the inside of the empty solar oven and how the plastic wrap changed after the oven was placed under the sun for 20 minutes.

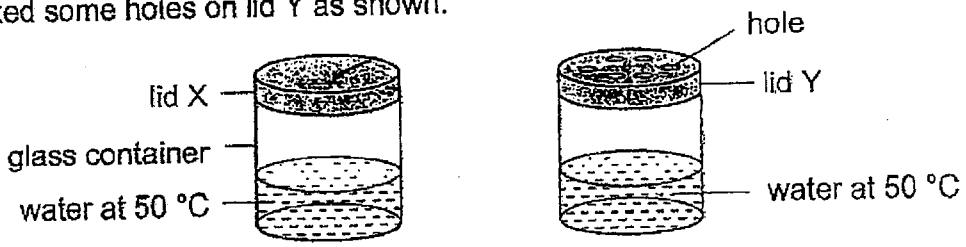


Explain why the plastic wrap bulged outwards. [1]

SCORE

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40 Faye poured the same volume of hot water into two identical glass containers. She poked some holes on lid Y as shown.



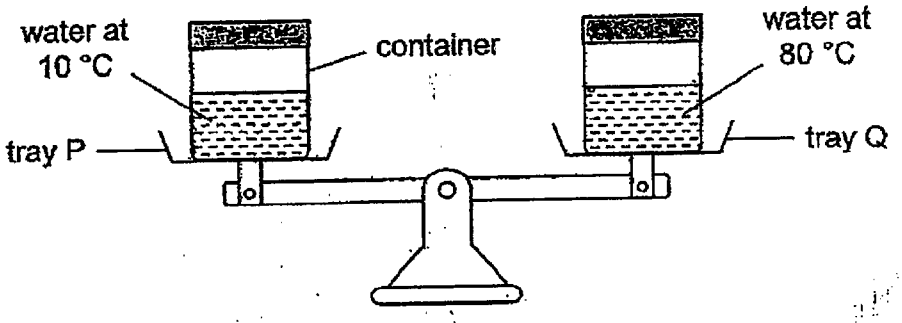
After 15 minutes, Faye observed water droplets on the underside of lid X, but not on lid Y.

(a) Explain how the water droplets on the underside of lid X were formed. [2]

(b) Explain why water droplets did not form on the underside of lid Y. [1]

(c) Faye conducted another experiment. She poured the same mass of water at different temperatures into two identical glass containers and covered the containers to make them air-tight.

She placed the containers on a beam balance. The total mass in trays P and Q was the same, and the beam was balanced as shown below.



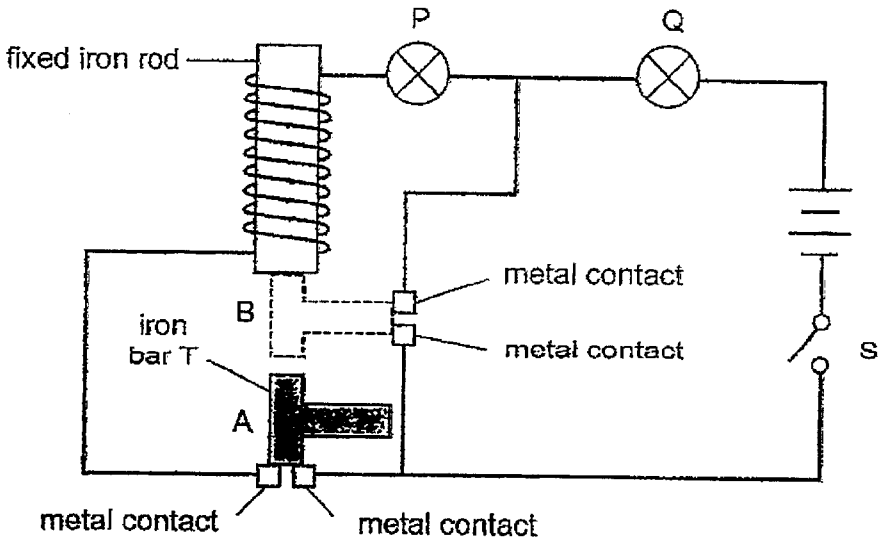
After a while, Faye observed that the beam balance was tilted.

State the side of the beam that moved down. Explain your answer. [2]

SCORE	

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41 Isaac set up a circuit as shown. P and Q are identical bulbs and all components are in working condition.



When switch S is closed, iron bar T moves up and down between points A and B.

(a) Explain why iron bar T moves between A and B repeatedly. [2]

(b) Will bulb P light up when the iron bar is at B? Explain your answer. [1]

(c) Isaac replaced iron bar T with a similar bar made of a different material. When he closed the switch, bulbs P and Q remained lit continuously.

Based on the above results, state **two** properties of the material of the new bar. [1]

End of Section B

SCORE	

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YEAR : 2025
LEVEL : PRIMARY 5
SCHOOL : PEI CHUN PUBLIC SCHOOL
SUBJECT : SCIENCE
TERM : END-OF-YEAR EXAMINATION

(BOOKLET A)

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

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Pei Chun Public School
Primary 5 Science
End-of-Year Examination 2025

Name: _____ ( ) Class: Primary 5 / _____

31	*Concept: Function of the skeletal system.*
(a)	Skeletal system
(b)	• Supports the body • Gives the body its shape • Protect the organs • Works with the muscular system to enable the body to move
32(a)	*Concept: Pollination is the process in which the pollen grains are transferred from the anther to the stigma.*
	Arrows W and Y
(b)	*Concept: The male reproductive cell in the pollen grain fuses with the egg cell in the ovule.*
	Fertilisation
(c)	*Concept: A fruit dispersed by water has characteristics that help it to float and be carried away by water.*
	It has a **fibrous husk** that allows it to **float on water**.
(d)	*Concept: The young plant gets its food from the seed leaves during germination.* *You need to explain why the young plant needs the seed leaves **before its leaves develop.***
	The young plant **gets its food from solid R** as it **cannot make its own food.**
33	*Concepts:* • *A plant carries out photosynthesis when there is light. It uses carbon dioxide and water to make sugar (food) and produces oxygen. (CWL to SO)* • *A plant respires all the time to obtain energy from the food it has made. It uses oxygen and produces carbon dioxide.*
(a)	The plant in tube A could get light, so it took in carbon dioxide for photosynthesis.
(b)	Oxygen
(c)	There was more carbon dioxide in the water, so the water with **liquid Y was yellow.** Without light, **the plant in tube B could only respire**, so it **produced carbon dioxide.**

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34(a)

Concepts:

- *The blood transports oxygen and digested food to all parts of the body. The body uses oxygen and digested food for respiration.*
- *The body produces carbon dioxide that needs to be transported to the lungs for removal.*

When a person is running, his **leg muscles need more energy.**
More **blood** is supplied to the leg muscles to **transport more oxygen and digested food to the leg muscles,** for the leg muscles to produce more energy.

Carbon dioxide produced by the leg muscles is transported away quickly in the blood **to the lungs** to be removed by the body.

(b)

Concept: Digested food is absorbed into the blood in the small intestine.

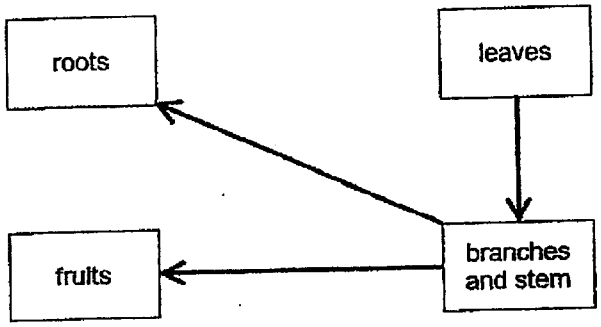
You need to use the information given in the graph.

Less blood is supplied to the small intestine when a person is running, compared to when he is resting. Thus, **less digested food will be absorbed into the blood** in the small intestine.

35

Concept: Food made by leaves is transported from leaves to the other parts of the plant through the food-carrying tubes.

(a)



(b)

With fewer fruits on the plant, **more food** made by the leaves **was transported to and stored in the only fruit on plant Y.**

36(a)

Concept: To see an object that does not give off light, light falls onto it and is reflected into our eyes.

The **material reflected light** from the torch **to the light sensor.** /
Light from the torch **was reflected off the material to the light sensor.**

(b)

From the question:

- *"Thomas conducted an experiment in a **dark room** using three **similar sheets**"*
- *"Thomas used the **same torch and light sensor** throughout his experiment."*

You need to state a variable that is not given in the question.

He should keep the **distance between the torch and the sheet of material** constant.

By doing so, the amount of light shining on each sheet of material would be kept the same.

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(c)	*For drivers to see the cones at night, **light must be reflected by the cones** into the driver's eyes.*
	Material B. Material B **reflected the most light**.
37(a)	*Concept: Flexibility is the ability to bend easily without breaking.*
	She was comparing the **flexibility** of the two materials.
(b)	*Part Z of the skateboard needs to be stiff.*
	Material W. Material W was **less flexible / stiffer** than material X.
(c)	***In Jean's experiment, she used <u>similar strips</u> made of different materials.*** *changed variable: material of strips* *constant variable: thickness and length of strips* *For Devi's experiment:* *changed variable: thickness of strips* *constant variable: material and length of strips* *You need to describe clearly the changes to be made to Jean's experiment.* *Do **NOT** write "Change the thickness of the strips," as it is unclear. It could mean that Devi can change both strips to the same new thickness. (e.g. change the thickness of both strips from 3 cm to 5 cm)*
	Use strips of **different thicknesses.** / **<u>Vary</u>** the thickness of the strips. Use strips made of the **same material.** / Keep the material of the strips the same.
38(a)	*Concept: Air is a matter. It is in gaseous state.*
	Air **occupies space** / has a volume / can be compressed. Air **does not have a definite shape.**
(b)	*Concept: Air is a matter. It has mass.*
	The mass of the fully inflated tyre would **increase.**
39(a)	*Temperature is NOT heat. Heat is a form of energy.*
	Temperature is a measure of how hot or cold an object is.
	Process skill: Graph reading
(b)	35 °C *(Temperature increased to 90 °C because heat that entered the oven could not escape easily.)*
(c)	30 minutes

4

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(d)	*Concept: Matter gains heat and expands.* *Note that the plastic wrap bulged outwards, which indicates that something was pushing it from the inside of the oven.*
	The **air in the oven gained heat** from the sun **and expanded,** pushing the plastic wrap outwards.
40(a)	*Concept: Condensation is a change in state of water from a gas to a liquid due to heat loss.* *Note that the temperature of the water was higher than the surrounding temperature. The water would not gain heat from the surroundings.*
	The hot **water in the container evaporated** into water vapour. The hot **water vapour touched the cooler** underside of the **lid, lost heat and condensed** to form water droplets.
(b)	The water vapour escaped through the holes in the lid.
(c)	*Concept: Matter has mass.* *Water droplets formed on both containers, but why did the mass increase for tray P and not for tray Q?*
	The side with tray P went down. **Water vapour from the surrounding air condensed** on the outer surface of the container on tray P, causing an **increase in the mass in tray P**. The **mass in tray Q remained the same** as the **water vapour that condensed** on the inner surface of the container **came from the hot water in the container.**
41(a)	*Concept: An electromagnet is a temporary magnet and can be switched on and off.* *You need to explain why iron bar T moves up to B and then moves down to A.*
	The iron rod is an electromagnet. When bar T is at point A, the **iron rod is magnetised and attracts bar T.** When **bar T moves up to point B, electric current stops flowing through the part of the circuit with the coil of wire.** (The part of the circuit with the coil of wire is open.) The **iron rod** loses its magnetism and **no longer attracts bar T.** Thus, the **bar T moves down to point A.**
(b)	*Concept: Electric current flows in a closed circuit (continuous path for current to flow from the positive terminal to the negative terminal of the battery).* *Note that bulb Q will still light up. The part of the circuit with bulb Q is closed.*
	No, **electric current will not flow through bulb P.** (The part of the circuit with bulb P will be open.)
(c)	*Note that both bulbs remained lit continuously. We can infer that the new bar did not move up to B. The new bar was not attracted to the electromagnet.*
	① ② It is an electrical conductor. It is non-magnetic.

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