Anglo-Chinese School (Junior)

NON-WEIGHTED BITE-SIZED ASSESSMENT TWO (2025)
PRIMARY 6

SCIENCE

Friday 16 May 2025 50 min

INSTRUCTIONS TO PUPILS

DO NOT TURN OVER THE PAGES UNTIL YOU ARE TOLD TO DO SO

Follow all instructions carefully.

There are 18 questions in this booklet.

Answer ALL questions.

Name: _____ ( )

Class: 6. ( )

Parent's Signature: _____

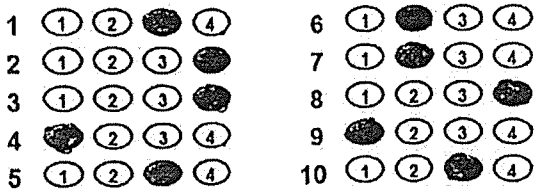
Booklet	Possible Marks	Marks Obtained
A	20	
B	30	
TOTAL	50	

This question paper consists of 17 printed pages. (Inclusive of cover page)

For each question from 1 to 10, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade your answer on the Optical Answer Sheet.

(20 marks)

Optical Answer Sheet



1. The table shows the properties of substances X, Y and Z. A tick (✓) indicates that the substance has the property.

Substances	Property		
	Has a definite shape	**Has a definite volume**	**Can be compressed**
X	✓	✓	
Y		✓	
Z			✓

Which one of the following best represents substances X, Y and Z?

	X	Y	Z
(1)	Milk	Oxygen	Nitrogen
(2)	Cloth	Orange Juice	Paper
(3)	Paper	Orange Juice	Nitrogen
(4)	Oxygen	Cloth	Milk

2. Which of the following is **not** a function of the skeletal system?

(1) To support the body
(2) To protect internal organs
(3) To give the body its shape
(4) To break down food into simpler substances

3. Birds have different types of beaks to help them feed in the environment. Study the table carefully.

Type of beak	Example of bird	Function of beak
A		To peck on the ground for insects
B		To crush hard seeds and nuts
C		To feed on nectar deep inside flowers
D		To scoop fish from water

Which two beaks have been **correctly** matched to their functions?

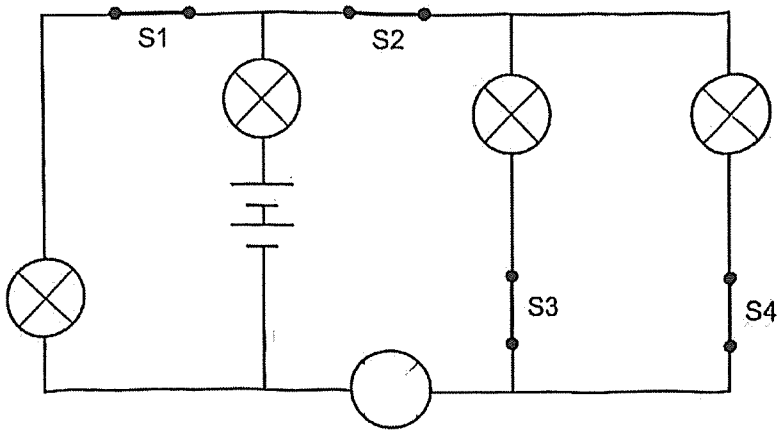
(1) A and C

(2) A and D

(3) B and C

(4) B and D

4. Luke set up the circuit shown.

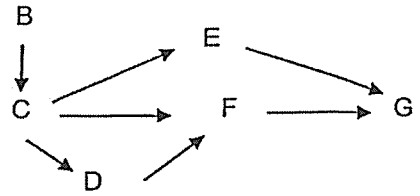


All five bulbs were lit when all four switches, S1, S2, S3 and S4, were closed. Luke wanted the most number of bulbs to be lit when only one switch is closed.

Which switch should he close?

(1) S1
(2) S2
(3) S3
(4) S4

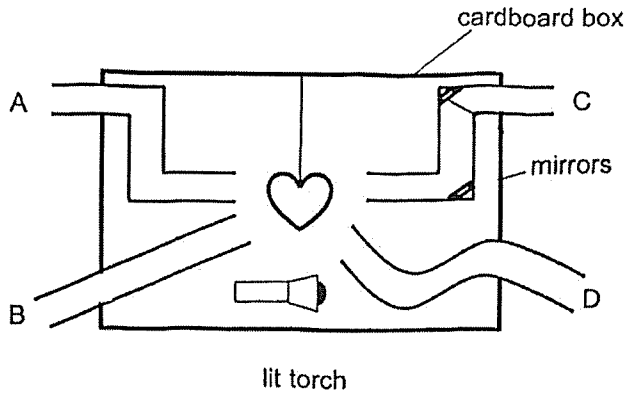
5. The diagram shows a food web.



Which of the following organisms are both prey and predator?

(1) C and D
(2) B, C and G
(3) D, E and F
(4) E, F and G

6. A wooden pendant was hung in the middle of a cardboard box with a lit torch as shown. Four tubes, A, B, C and D were placed in the box.



Which tube(s) can be used to see the pendant inside the box?

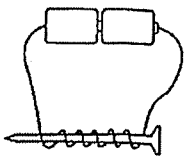
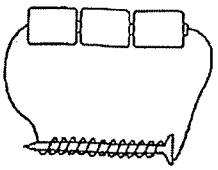
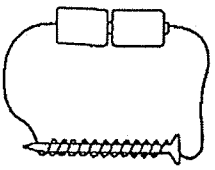
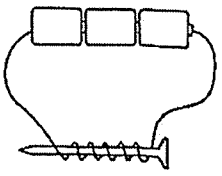
(1) C only

(2) B and C only

(3) A, B and C only

(4) A, B, and D only

7. Bala wanted to find out how the number of batteries affect the magnetic strength of an electromagnet.

Set-up A	Set-up B	Set-up C	Set-up D
			
Number of coils of wire: 6	Number of coils of wire: 12	Number of coils of wire: 12	Number of coils of wire: 6

Which two set-ups should he use to investigate his aim?

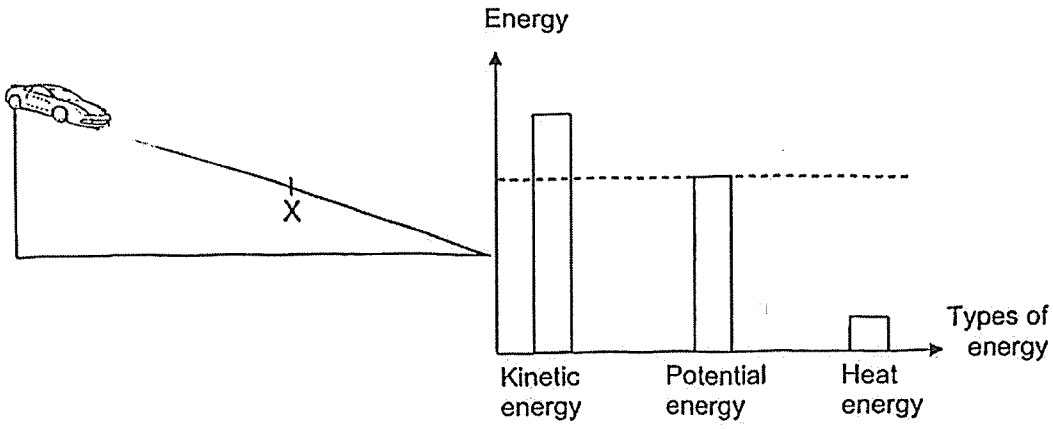
(1) A and B

(2) A and D

(3) B and D

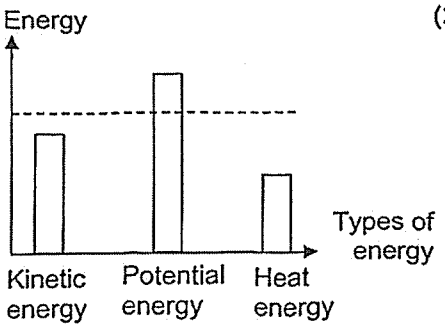
(4) C and A

8. Dylan released a toy car down a ramp as shown. The graph shows the amount of the different types of energy of toy car at point X.

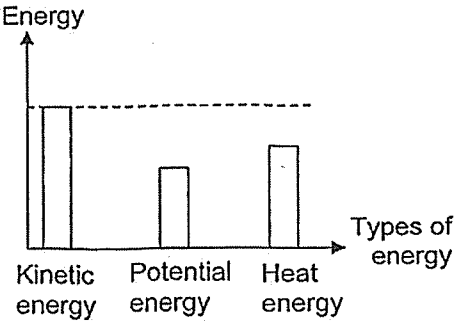


He poured some sand on the ramp and released the toy car. Which graph shows the amount of different types of energy at point X after the sand was poured?

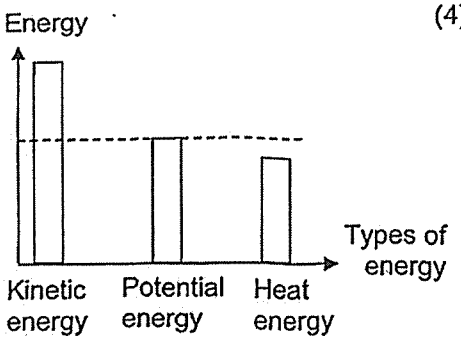
(1)



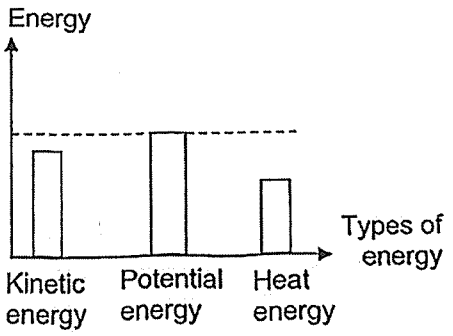
(2)



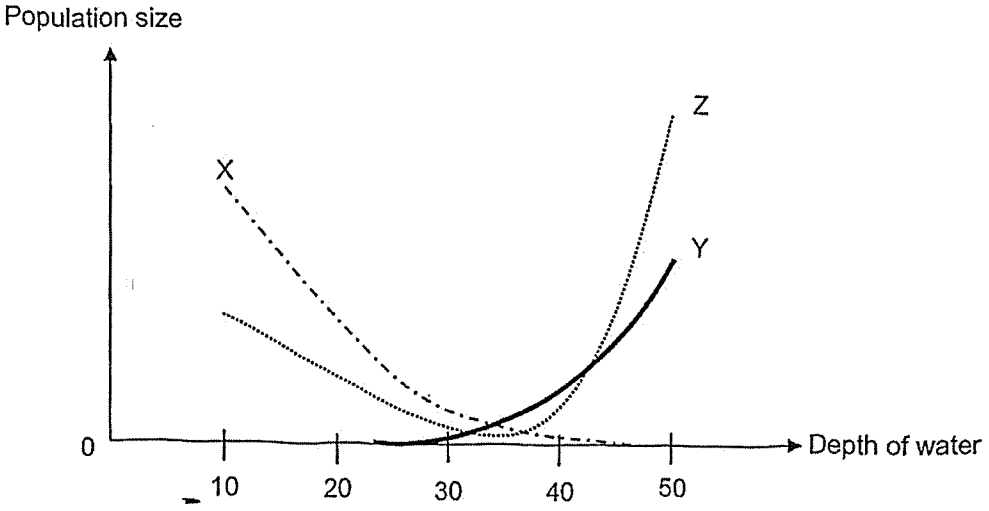
(3)



(4)



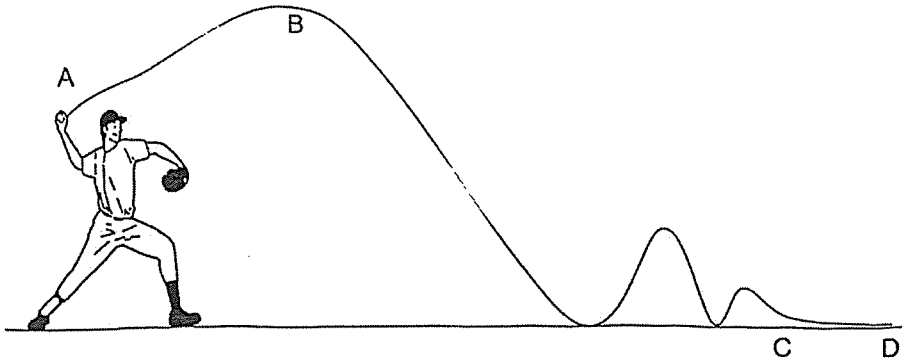
9. The graph shows the population size of three different organisms, X, Y and Z, that live at different depths in the water which affects the amount of light the organisms receive.



Which organism(s) survive(s) better when there is more light?

(1) X only
(2) Z only
(3) X and Y only
(4) Y and Z only

10. The diagram shows the pathway of a baseball after it was thrown into the air.



Which of the following statement(s) is/are true?

W: There are no forces acting on the ball at point D.
X: The baseball has maximum gravitational force at B.
Y: A push force was exerted on the baseball at point A.
Z: Heat is produced as the ball rolls along from point C to point D.

(1) W only

(2) W and X only

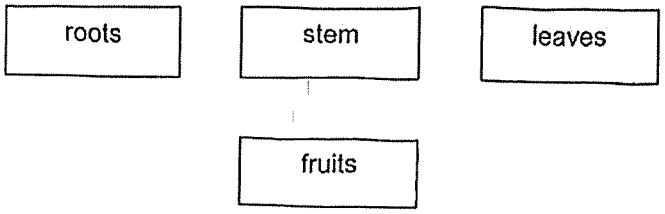
(3) Y and Z only

(4) X, Y and Z only

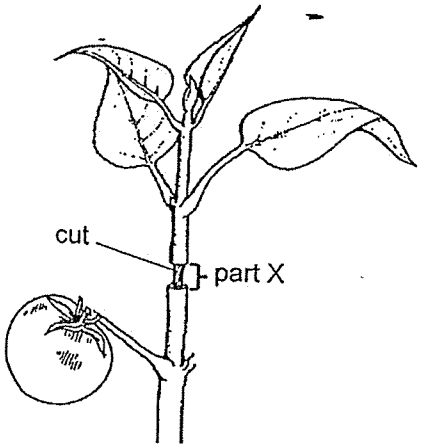
For questions 11 to 18, write your answers in this booklet.
The number of marks available is shown in brackets [ ] at the end of each question or part question.

(30 marks)

11 (a) Draw three arrows (→) in the diagram to show how food is transported in the four parts of a plant. [1]



Ben removed the food-carrying tubes of the tomato plant by making a cut around the stem at part X as shown.



After a week, Ben observed that the tomato fruit which was growing below the cut became smaller and shriveled up.

(b) Explain Ben's observation. [2]

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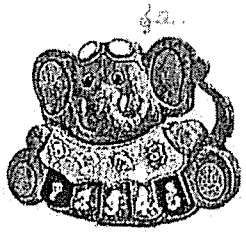
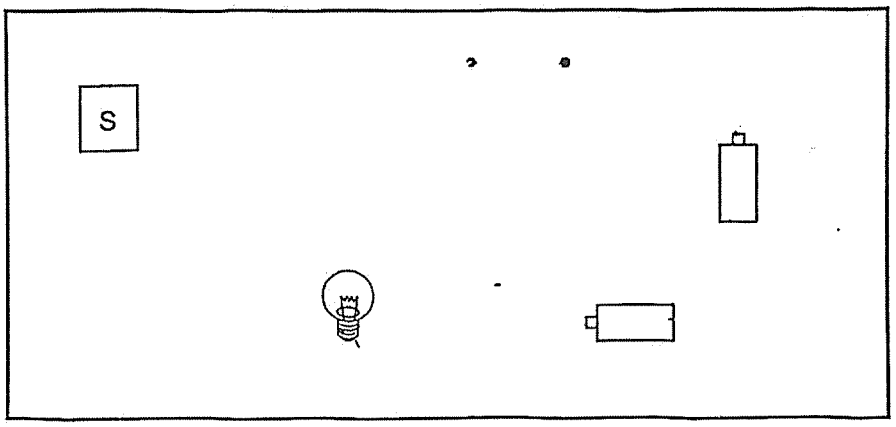
SCORE	
	3

12. Devi built a musical toy as shown. She used two identical batteries, a bulb, a switch and a sound box, S. When the switch was closed, the bulb lit up and the toy played music. When the bulb fused, the toy could still play music.



(a) Use a pencil to draw the wires in the circuit that Devi has set up in her toy. [2]



(b) State one way that Devi can increase the brightness of the bulb in her toy. [1]

_____

(c) Mark on the circuit with an X where Devi should add another switch so that she can use the toy only as a night light. [1]

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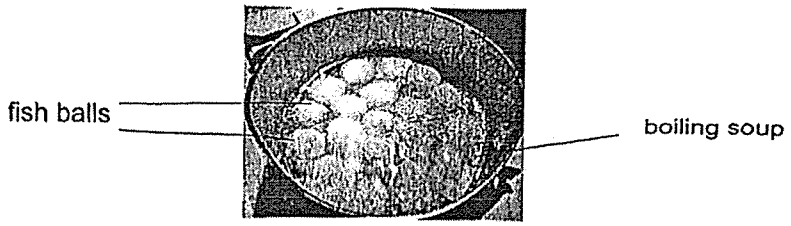
SCORE	/ 4

13. Mrs Lum placed a packet of fish balls at room temperature into a pot of boiling soup as shown.



(a) The temperature of the soup decreased after the fish balls were added. Give a reason why. [1]

_____

_____

(b) It takes 15 minutes to cook a packet of fish balls.

How will the time taken to cook the fish balls change if Mrs Lum cooks two packets of fish balls in the same pot using the same volume of hot soup instead? Explain why. [1]

_____

_____

Mrs Lum steamed some buns with chocolate filling as shown in diagram 1.

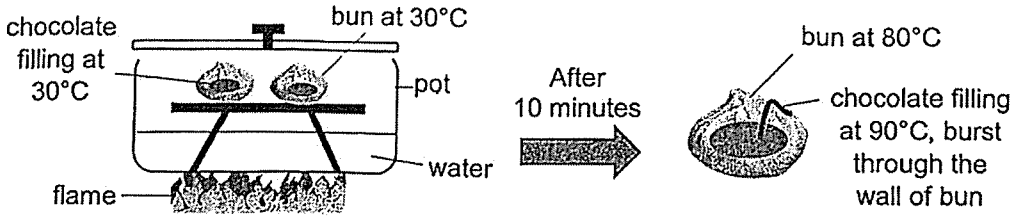


Diagram 1 Diagram 2

(c) After steaming the buns for 10 minutes, the chocolate filling burst through the walls of the buns as shown in diagram 2. Explain why. [2]

_____

_____

_____

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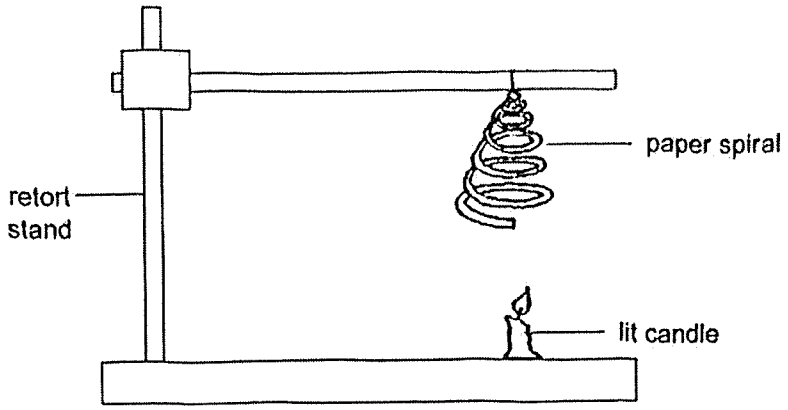
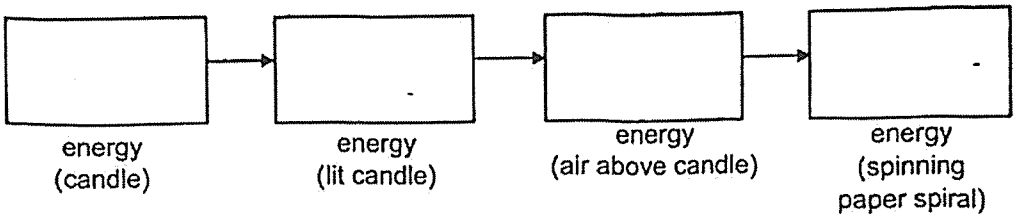
SCORE	/ 4

14. Henry conducted an experiment with the set-up shown. After he lighted the candle, he observed that the paper spiral started to spin.



(a) Fill in the boxes to show the main energy changes. [2]



(b) Suggest one change Henry can do to the same paper spiral to make it spin faster. [1]

_____

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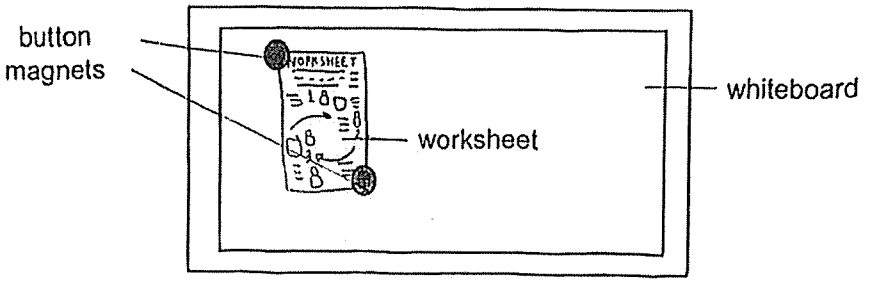
SCORE	/ 3

15. Miss Lim placed two button magnets over a worksheet on the whiteboard as shown.



(a) Name the force(s) acting on the worksheet. [1]

Miss Lim wanted to find out how the size of a button magnet affects its magnetic strength. She conducted an investigation using three different-sized magnets, A, B and C.

A B C

She continued placing stacks of worksheets on top of one another and counted the maximum number of worksheets that could be placed before the button magnets fall off the whiteboard. She recorded her results as shown.

	A	B	C
Maximum number of worksheets before magnets fall off whiteboard	6	5	8

(b) What can Miss Lim conclude from her experiment? [1]

(c) Miss Lim used identical worksheets to stack on top of each other. Explain why using worksheets of the same size ensures a fair test. [1]

(Go on to the next page)

SCORE	
	3

16. (a) What is a community? [1]

_____

_____

There are four populations, Q, R, S and T, in community U. The information about these populations is as follows:

- R feeds on Q.
- T feeds on Q and R.
- S is eaten by Q and T.

(b) In the space below, draw a food web to represent the relationship among the four populations. [2]

(c) Which organism is a plant-and-animal-eater? Explain your answer. [1]

_____

_____

(d) A disease caused a sharp decrease in the population of organism R. Explain how this will affect the population of organism S. [1]

_____

_____

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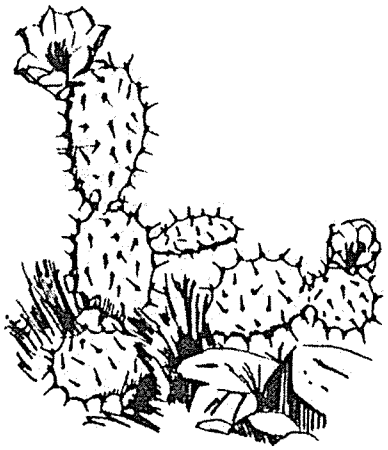
SCORE	/ 5

17. Cacti are plants that can be found in the desert, where temperatures can be extremely high during the day and very low at night. Water is scarce, and the environment is dry and harsh.



Cacti have needle-like leaves which help them survive for long periods without rain.

(a) Give a reason how having spines instead of leaves help the cacti survive in the desert. [1]

_____

(b) State another structural adaptation of the cacti that helps them survive long periods without rain. [1]

_____

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SCORE	/ 2

Bird C is an organism that lives in the cacti and feeds on the nectar of the cacti flower as shown in diagrams 1 and 2.

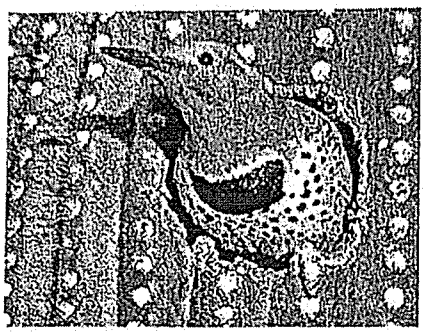

Diagram 1

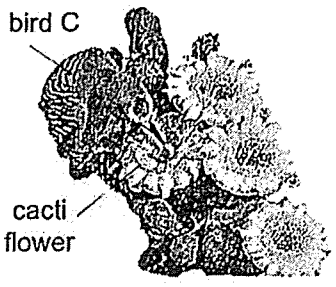

Diagram 2

(c) How does Bird C and the cacti benefit from one another? [2]

Benefit to bird C: _____

_____

Benefit to cacti: _____

_____

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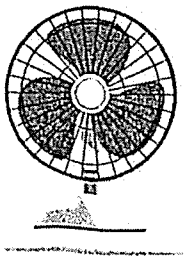
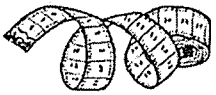
SCORE	/ 2

18. Ali wanted to find out if the presence of a wing-like structure affects the distance travelled by fruit X.

Fruit X

He conducted an experiment with the following materials:

		
fan	Two fruit X with wing-like structure	measuring tape

(a) List down the steps Ali took to conduct his experiment to investigate his aim. [2]

(b) State two variables to keep constant to ensure a fair test. [1]

(c) State an advantage to the young plant when the fruit travels a further distance from the parent plant. [1]

End of Paper

SCORE	
	4

SCHOOL : ACS (J) PRIMARY SCHOOL
LEVEL : PRIMARY 6
SUBJECT : SCIENCE
TERM : WA2 2025

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	4	4	1	3	2	2	4	1	3

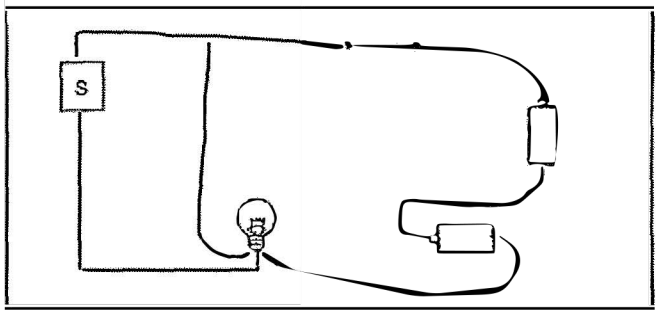
Q11)

a) roots ← stem ← leaves
↓
fruits

b) Food made by the leaves cannot be transported to below the cut as the food-carrying tubes were removed.

Q12)

a)

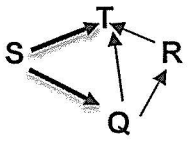


b)Add one more battery to the circuit.

Q13)

a) The hot soup lost heat to the fish balls.

b) The time taken would increased. The two fish balls more exposed surface to the boiling soup would have hence more heat is transferred to the two fish ball.

	c) The chocolate filling gained heat and expanded than the wall of the bun.
Q14)	a) Potential energy → Heat energy →kinetic energy →kinetic energy b) Use the retort stand to place the paper spiral lower.
Q15)	a) Frictional source, gravitational force, magnetic force. b) The magnetic strength of the magnet does not depend by its size. c) To ensure that the mass of the paper is the same.
Q16)	a)A community consist of different populations living together in a habitat. b  c)Organism T. As S is a producer, s is a plant and T feeds on Q and R, Q feeds on S , hence T is a plant and animal eater. d) When R decreased, Q increased a bit while T decreased a bit, hence S would decreased as more Q would feed on S and T would also.
Q17)	a) To reduce water loss b) It has large waxy stems, which stores water for itself when there is no rain. c) Benefit to bird C: C can take in nectar of cacti flower to feed itself. Benefit to cacti: C can transport the pollen grains of the cacti flower from the anther to the stigma, this way the cacti can fertilised and reproduced.
Q18)	a) Remove the wing-like structure from one of fruits X. Turn on the fan drop both fruits from the same height in front of the fan. Measure the distance travelled by both fruits. b) Mass of the two fruits./ Height from which the two fruits are dropped c) The young plant would not have to compete with the parent plant for space water, sunlight and mineral salts.