Name : _____ ( ) 25 October 2023

Class : Primary 3 SY

SINGAPORE CHINESE GIRLS' SCHOOL

END OF YEAR EXAMINATION 2023

PRIMARY 3

SCIENCE

BOOKLET A

Additional Materials: Optical Answer Sheet (OAS)

Total Time for Booklets A and B: 1 h 25 min

INSTRUCTIONS TO CANDIDATES

1. Do not open this booklet 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 14 printed pages.

Booklet A: 40 marks

For each question from 1 to 20, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet.

1. Which of the characteristics below describes both insects and birds?

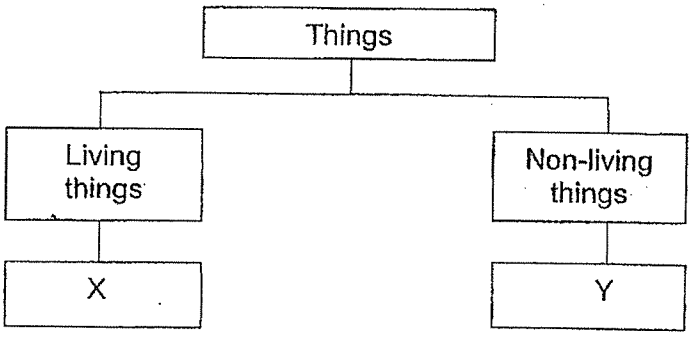
   (1) They have three body parts.

   (2) Their young look like the adults.

   (3) They reproduce by laying eggs.

   (4) They have the same type of body covering.

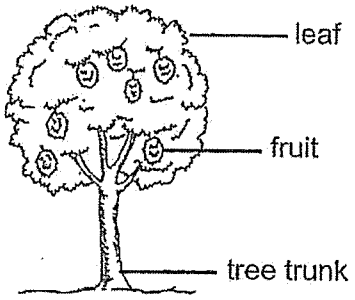
2. Study the classification diagram below.



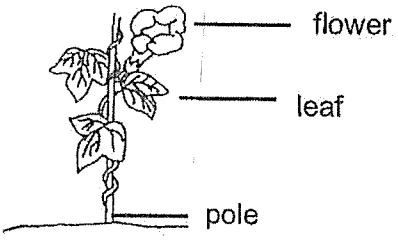
Which of the following represents X and Y correctly?

	X	Y
(1)	sand	water
(2)	fern	sand
(3)	water	ant
(4)	ant	fern

3. Study the pictures below



Plant X



Plant Y

Which of the following statements about both plants is correct?

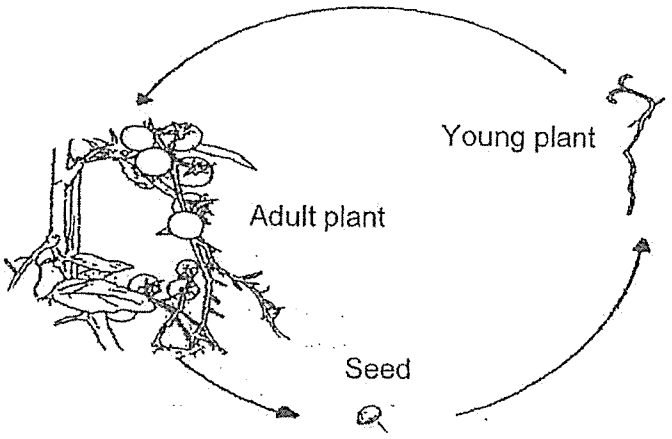
(1) Both reproduce from spores.

(2) Both plants produce flowers.

(3) Plant X does not need air but Plant Y needs air.

(4) Plant X make its own food but Plant Y feeds on other living things.

4. The diagram below shows the life cycle of a tomato plant.



Which of the following statements describing the life cycle of the tomato plant is **false**?

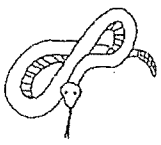
(1) Water is needed at every stage of the tomato plant's life cycle.

(2) The life cycle of the tomato plant ensures the continuity of its kind.

(3) Light is needed for every stage of the tomato plant's life cycle.

(4) The tomato plant has the same life cycle as a chili plant.

5. Study the things in groups A and B.

Group A		Group B	
			
Umbrella	Key	Snake	Fern

Which of the following statements about the above things is correct?

(1) Only things in Group A can grow.
(2) Things in Group B cannot respond to changes.
(3) Things in both Group A and Group B can reproduce.
(4) Only the things in Group B need air, water and food to survive.

6. The diagram below shows a raincoat.

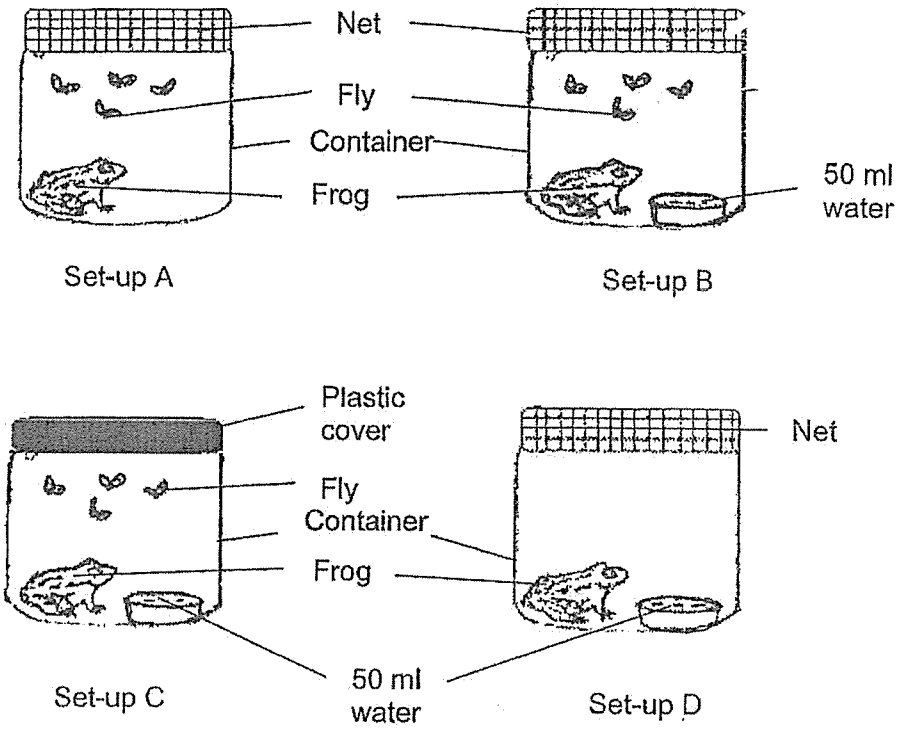
Raincoat 

Plastic is a suitable material for making a raincoat because it is _____.

(A) fragile
(B) flexible
(C) waterproof
(D) absorbent

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

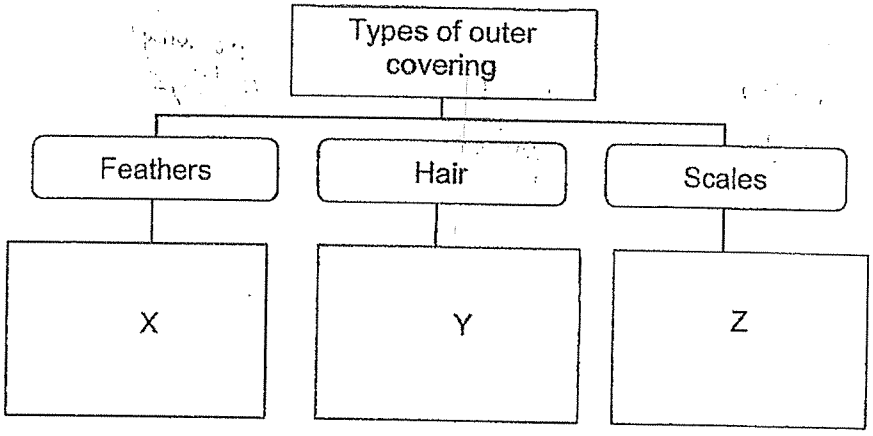
7. Amy set up an experiment as shown below using frogs and containers of a similar size.



In which set-up will the frog stay alive the longest?

(1) Set-up A
(2) Set-up B
(3) Set-up C
(4) Set-up D

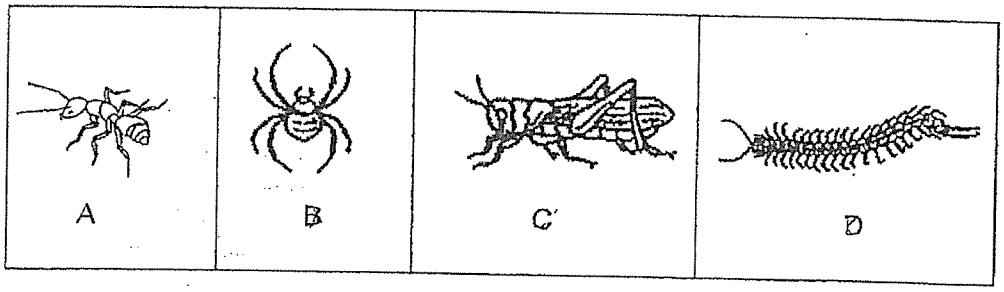
8. Study the diagram below.



Which list of animals below matches X, Y and Z?

	X	Y	Z
(1)	chicken	horse	frog
(2)	frog	whale	horse
(3)	fish	frog	chicken
(4)	chicken	whale	fish

9. The diagram below shows some animals.



Which of these animals are insects?

(1) A and B only

(2) A and C only

(3) B and C only

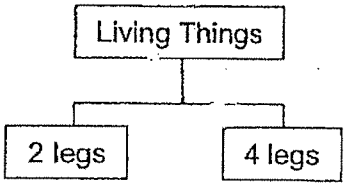
(4) C and D only

10. Study the animals below carefully.

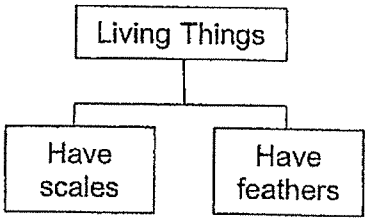
P Q R S

Which of the following classification charts can be used to classify animals P, Q, R and S into 2 groups?

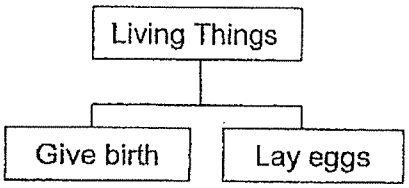
(1)



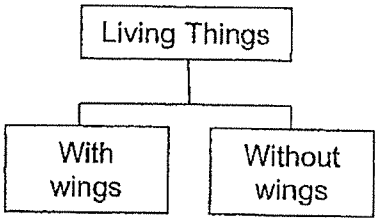
(2)



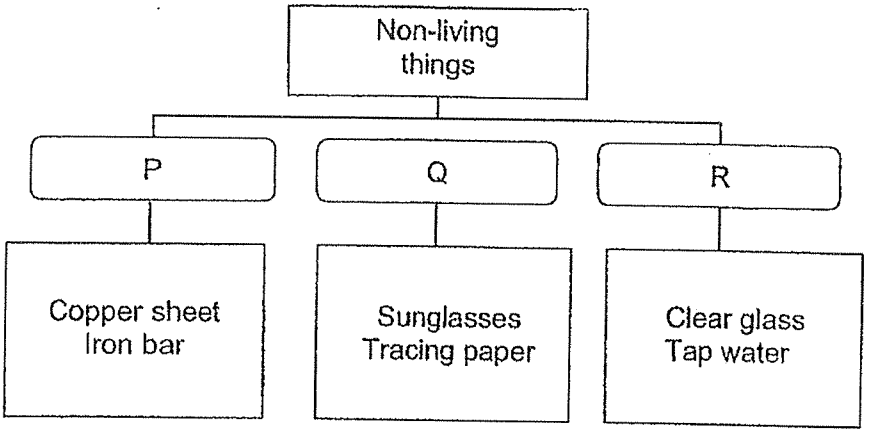
(3)



(4)



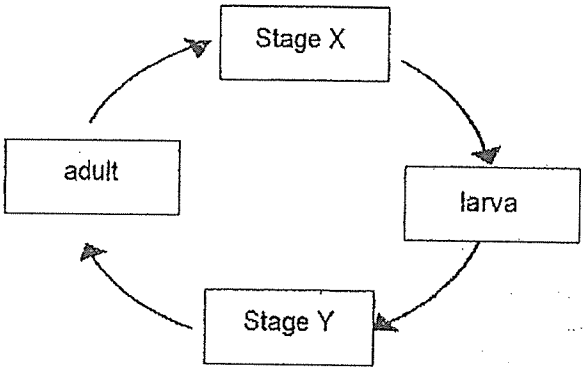
11. Study the flowchart below.



Based on the flowchart above, which of the following would be a suitable heading for P?

1) flexible objects
2) magnetic objects
3) opaque objects
4) man-made object

12. The diagram below shows the stages in the life cycle of a mosquito.

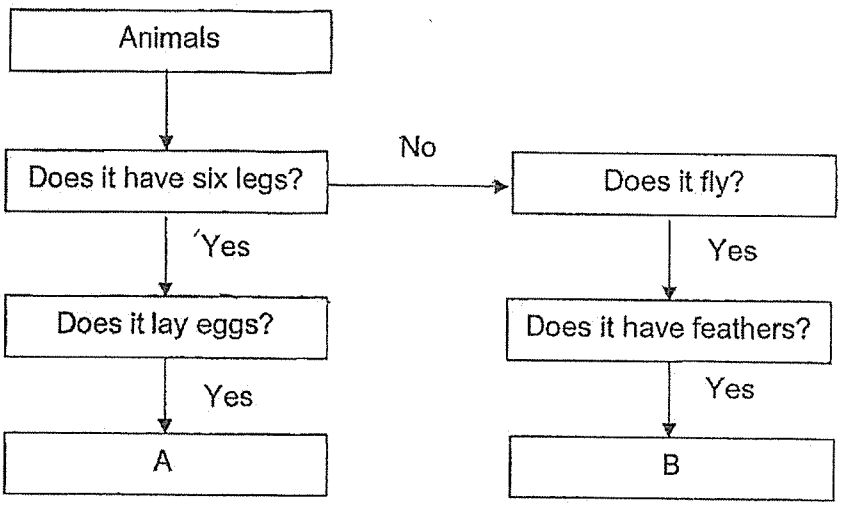


Life cycle of mosquito

Which of the following best represents stages X and Y?

	Stage X	Stage Y
(1)	young adult	egg
(2)	egg	pupa
(3)	pupa	egg
(4)	egg	young adult

13. Study the flow chart below carefully.



Which of the following pairs of animals represents A and B respectively?

	A	B
(1)	ant	grasshopper
(2)	spider	butterfly
(3)	mosquito	bird
(4)	frog	snake

14. Study the characteristics of organism Z below.

Organism Z:

- Can be seen only with a microscope
- Needs air, food and water
- Can be useful or harmful

What could organism Z be?

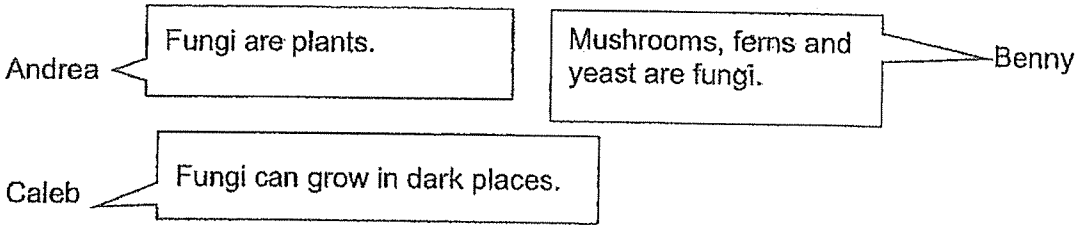
(1) Fern

(2) Moss

(3) Bacteria

(4) Mushroom

15. Three pupils made the statements below.



Who is/are correct?

(1) Andrea only
(2) Benny only
(3) Caleb only
(4) All of the above

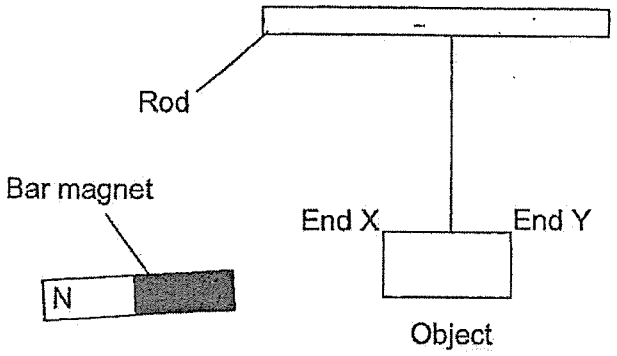
16. 4 similar seeds A, B, C and D from the same plant are placed under different conditions as shown in the table below.

	Conditions			
Seed	**Light**	**Water**	**Air**	**Temperature (°C)**
A	✓	×	✓	10
B	✓	✓	✓	10
C	×	✓	✓	30
D	×	✓	×	30

Which seed will germinate the fastest?

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

17. Beth carried out an experiment with a bar magnet and 4 objects, P, Q, R and S. She placed the south pole of the bar magnet close to different ends X and Y of each object.



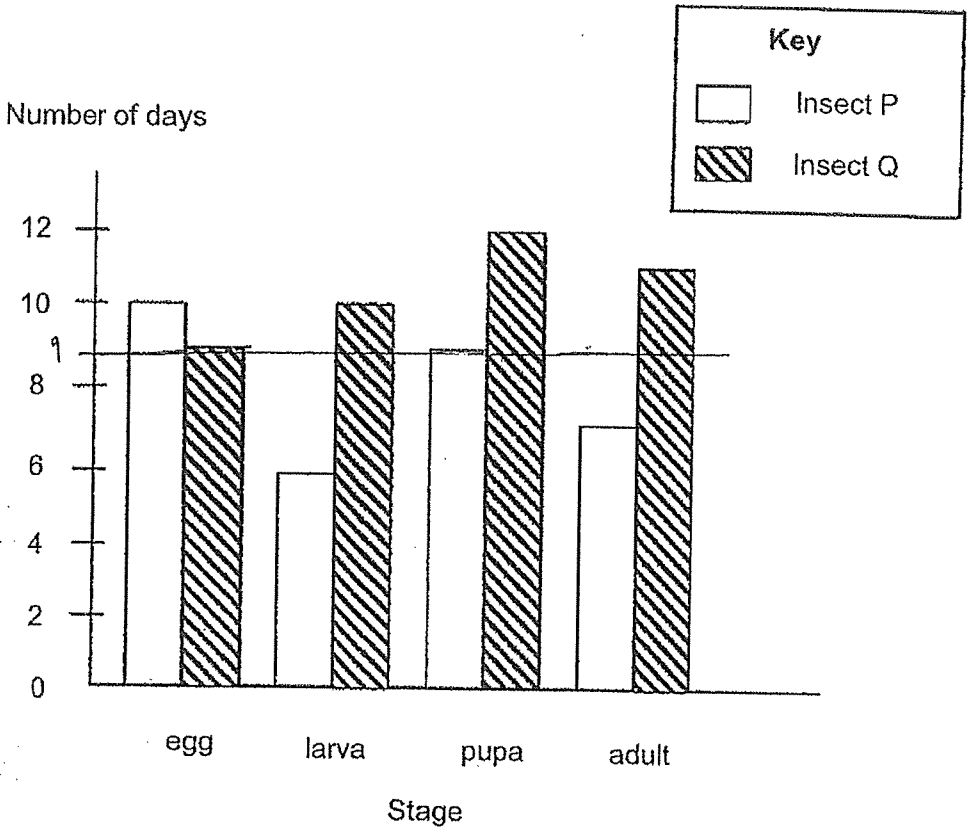
The table below describes her observations.

Object	Observations	
	South Pole and X	South Pole and Y
P	Attracted	Attracted
Q	Not Attracted	Not Attracted
R	Repelled	Attracted
S	Attracted	Repelled

Which of the following would correctly describe the materials that each object was made of?

	P	Q	R	S
(1)	Plastic	Magnet	Iron	Steel
(2)	Nickel	Plastic	Magnet	Magnet
(3)	Iron	Wood	Magnet	Copper
(4)	Magnet	Wood	Steel	Aluminium

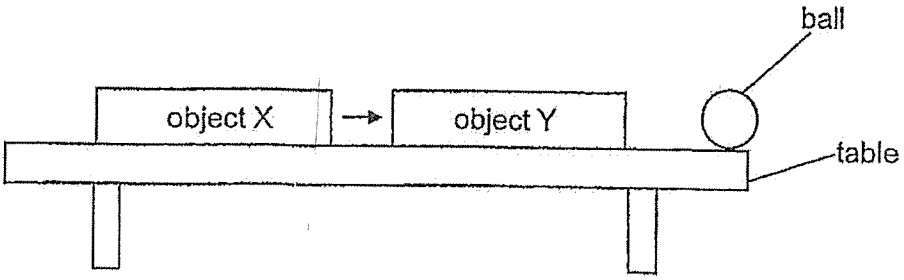
18. The bar graph below shows the number of days taken during each stage of the life cycles of insects P and Q.



At which stage would insects P and Q be on the 9th day after the eggs were hatched?

	Insect P	Insect Q
(1)	egg	larva
(2)	pupa	larva
(3)	larva	pupa
(4)	egg	pupa

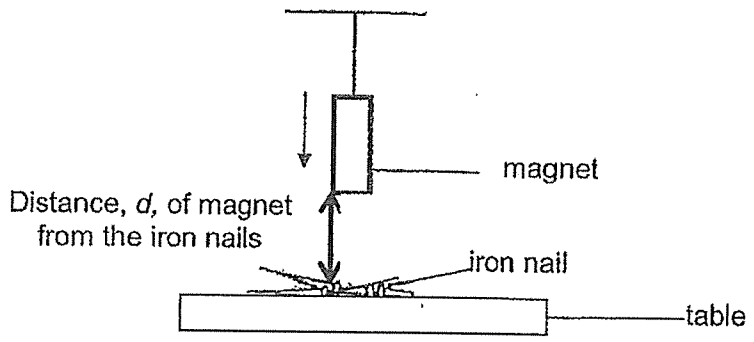
19. Carrie placed a ball at the edge of a table. She moved object X towards Y without touching Y. The ball was pushed off the table by object Y.



Which of the following best describes what object X, object Y and the ball are?

	Object X	Object Y	Ball
(1)	magnet	magnet	steel
(2)	magnet	iron	iron
(3)	magnet	magnet	copper
(4)	copper	magnet	iron

20. Diana conducted an experiment using four magnets A, B, C and D with the set-up shown below.



She lowered magnet A towards the nails. She stopped once all four nails are attracted by the magnet. She then measured, *d*, the distance between the magnet and the iron nails.

She repeated the experiment with magnets B, C and D.

The table below shows the distance when each magnet was able to attract all four iron nails.

Magnet	Distance, d, of magnet from the iron nails (cm)
A	18
B	7
C	12
D	5

Which magnet has the greatest magnetic strength?

(1) A

(2) B

(3) C

(4) D

End of Booklet A

Name : _____( ) 25 October 2023

Class : Primary 3 SY

SINGAPORE CHINESE GIRLS' SCHOOL

SECOND SEMESTRAL ASSESSMENT 2023

PRIMARY 3

SCIENCE

BOOKLET B

Total Time for Booklets A and B: 1 h 25 min

INSTRUCTIONS TO CANDIDATES

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

	Max Mark	Marks attained
Booklet A	40	
Booklet B	30	
Total Marks	70	
		Percentage %

Parent's Signature

This booklet consists of 11 printed pages and 1 blank page.

Booklet B: 30 marks

For questions 21 to 30, write your answers in this booklet.
The number of marks available is shown in brackets ( ) at the end of each question or part question

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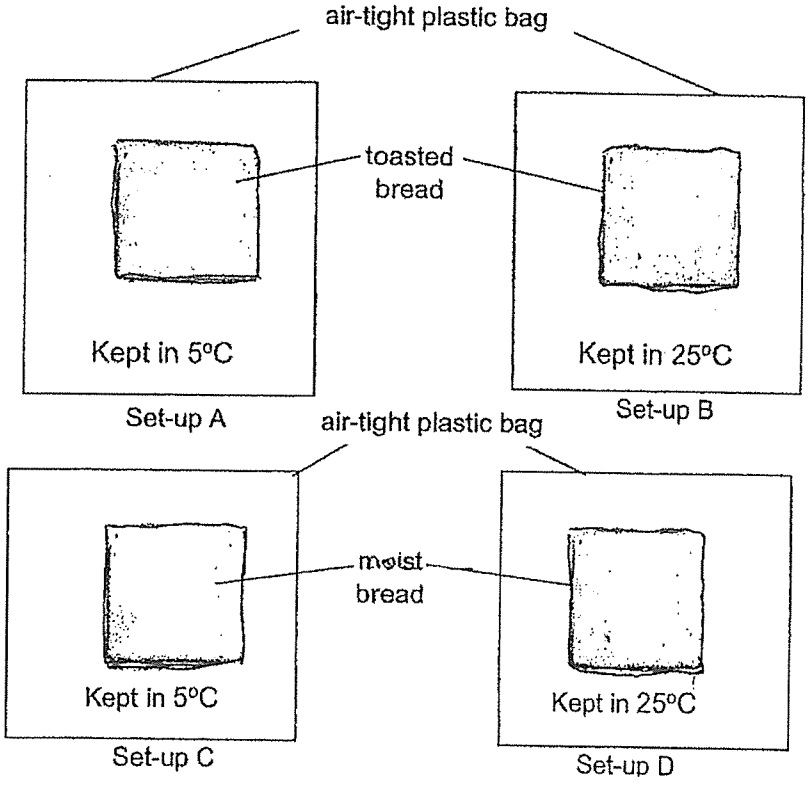
21. Eva conducted an experiment to find out the conditions that were needed for bread mould to grow within 5 days. The diagram below shows the set-ups at the start of the experiment.



(a) In which set-up would the slice of bread produce the most mould? Explain. [2]

(b) Which 2 set-ups would you choose to compare to find out if more bread mould can grow with more warmth? [1]

3

22. The table below charts the growth of a green bean seed.

Number of days	0	1	2	3	4	5	6	7	8
Mass of seed leaves (mg)	10	8	5.8	5.2	4	3.7	2	1	0

(a) Explain why the mass of the seed leaves decreased. [1]

_____

_____

(b) Why do you think the plant can survive without any seed leaves after Day 8? [1]

_____

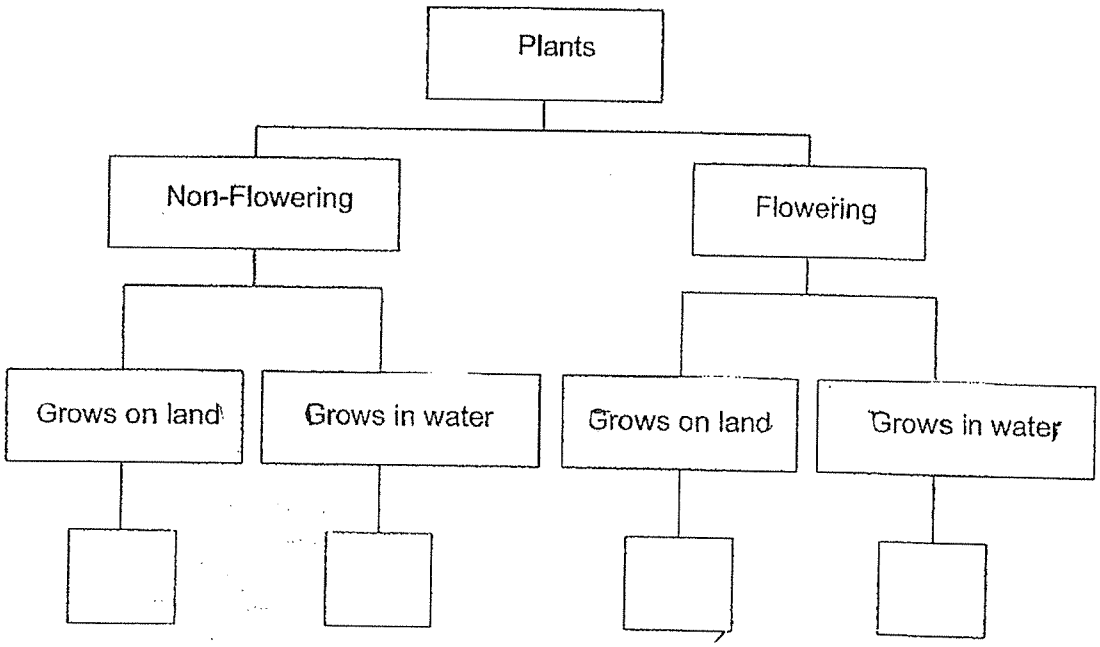
_____

2

23. Fanny observed four plants P, Q, R and S and recorded her observations in the table below.

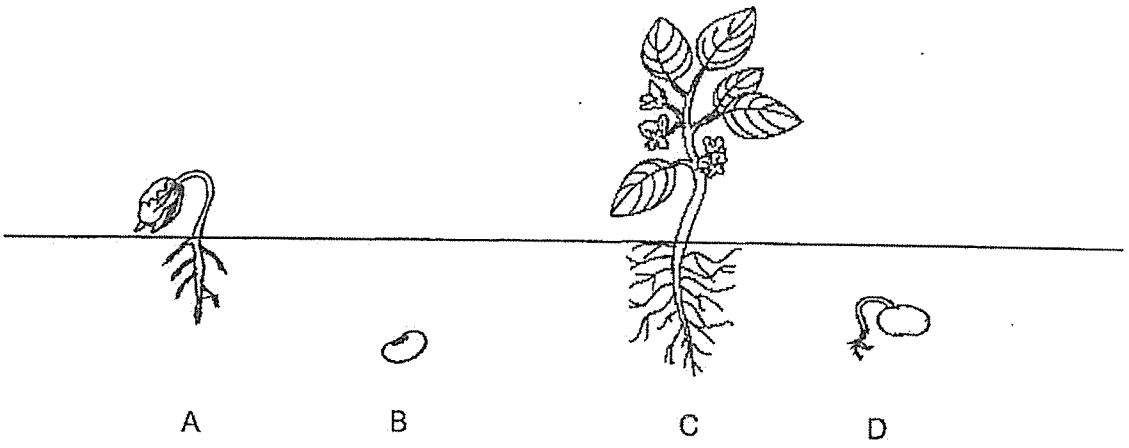
	Has spores	Has seeds	Grows on land	Grows in water
P		✓	✓	
Q	✓		✓	
R	✓			✓
S		✓		✓

Based on the information given above, fill in the classification chart below that correctly represents plants P, Q, R and S. [2]

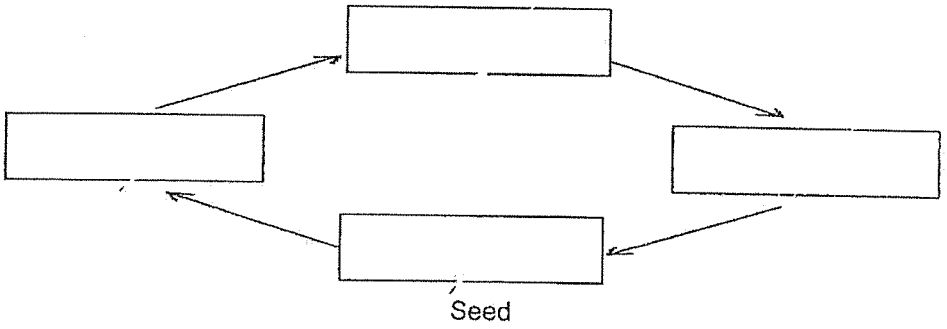


2 ✓

24. Gola drew the diagram below to show the stages of plant growth.

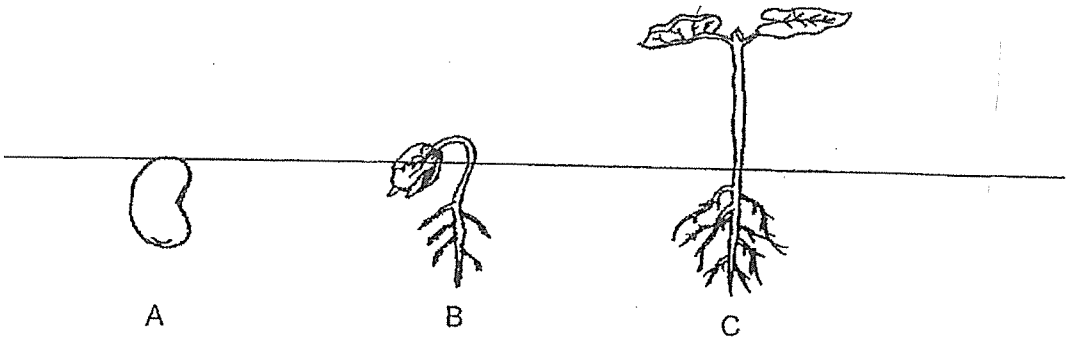


Fill in the boxes with A, B, C and D to show the stages in the life cycle of the plant. [2]



2

25 (a). The diagram below shows the stages in the life cycle of a plant.

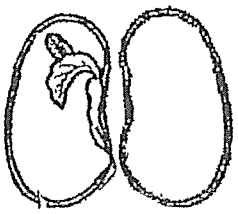


(i) The plant needs light to survive at Stage ____. [1]

(ii) From Stage A to Stage B, the plant needs to be given

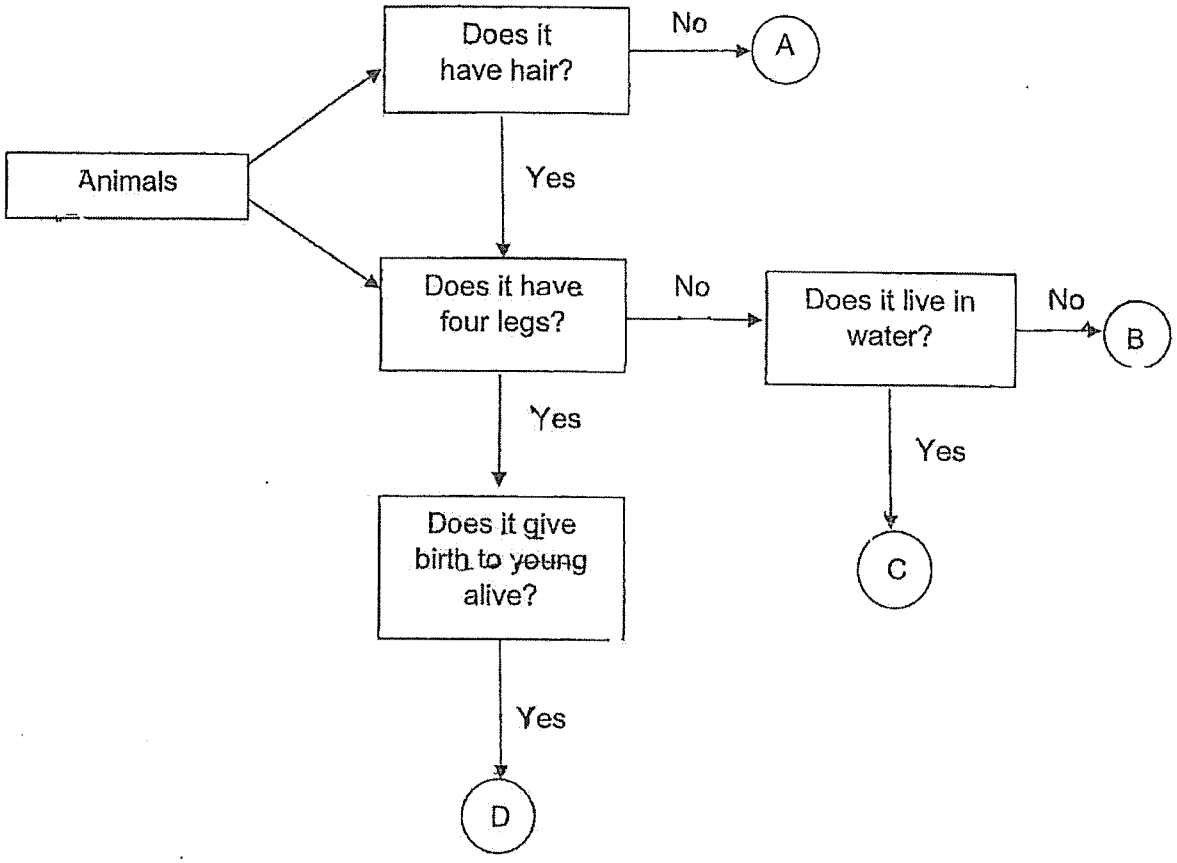
_____, _____ and _____. [1]

(b) On the diagram below, draw an arrow and label the part which provide food for the plant. [1]



3

26. Study the flowchart of animals A, B, C and D below.



(a) Which animal/s is/are possibly mammals? Explain your answer. [2]

_____

_____

(b) Based only on the chart above, state the difference between animals B and D. [1]

_____

_____

3

27.(a) Draw the life cycle of a butterfly in the box below.
Label the stages clearly. [1]

(b) Name the stage in the life cycle when the butterfly: [1]

(i) feeds actively:

(ii) stops feeding:

(c) Write 'True' or 'False' for the following statements about the life cycles of the following animals. [2]

	Statements	True /False
i)	The chicken has 3 stages in its life cycle.	
ii)	Both the young and the adult frog live on land.	
iii)	The young of the cockroach resembles the adult.	
iv)	The mosquito lays its eggs in water..	

4

28. Helen has 400 beads of similar size made of materials P, Q, R and S. The beads are mixed up in a container. The properties of P, Q, R and S are given in the table below.

	Property of material		
	Is it magnetic?	**Is it flexible?**	**Does it sink in water?**
Material P	No	No	Yes
Material Q	No	Yes	No
Material R	Yes	No	Yes
Material S	No	Yes	No

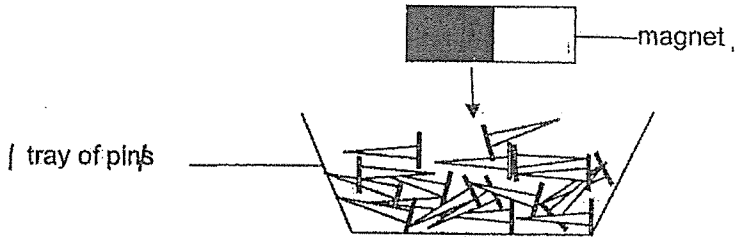
(a) Suggest what Helen can do to separate P and Q. [1]

(b) Suggest what Helen can do to separate P and R. [1]

(c) Which 2 materials are the most difficult to separate? Explain why. [2]

4

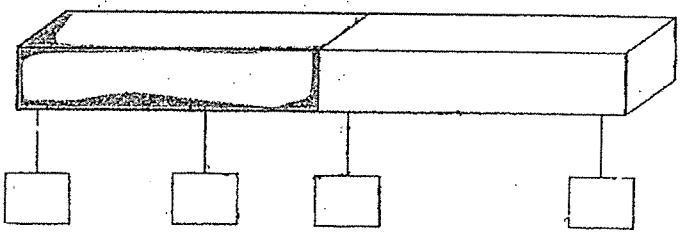
29. Ivy did an experiment with a magnet and a tray of pins as shown below. She placed the magnet in the tray of pins and lifted the magnet up from it.



She then recorded the number of pins attracted to the different parts A, B, C and D of the magnet as shown in the table below.

Parts of the magnet	Number of pins attracted to the magnet
A	9
B	0
C	10
D	3

(a) In the diagram below, fill in the boxes with the letters A, B, C and D to show correctly the parts of the magnet based on the information in the table. [1]



(b) Suggest a way to make a magnet lose its magnetic strength besides dropping it or hitting it many times. [1]

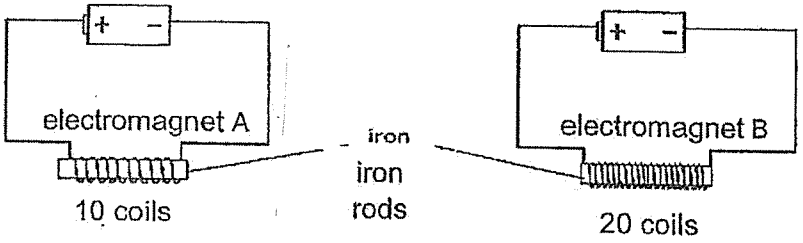
_____

(c) Name a material that the magnet is made of. [1]

_____

3

30. Jen wanted to find out whether the number of turns of the coil affects the strength of an electromagnet. She set up two electromagnets, A and B, as shown below.



She wanted to find out how strong the electromagnets are by testing how many paper clips they can attract.

(a) Put a tick (✓) in the boxes for the variables which she should keep the same to ensure a fair test. [2]

	Variables	Put a tick (✓) for the correct answers
(a)	The colour of the iron rods.	
(b)	The strength of the batteries.	
(c)	The number of coils around around the iron rods.	
(d)	The number of pins the electromagnets attract.	

(b) Besides changing the number of coils around the iron nail, suggest another method to increase the strength of both electromagnets. [1]

_____

(c) Jen replaced both iron rods in electromagnets A and B with copper rods. She observed that no paper clips were attracted by both electromagnets. Explain why. [1]

_____

_____

End of Booklet B

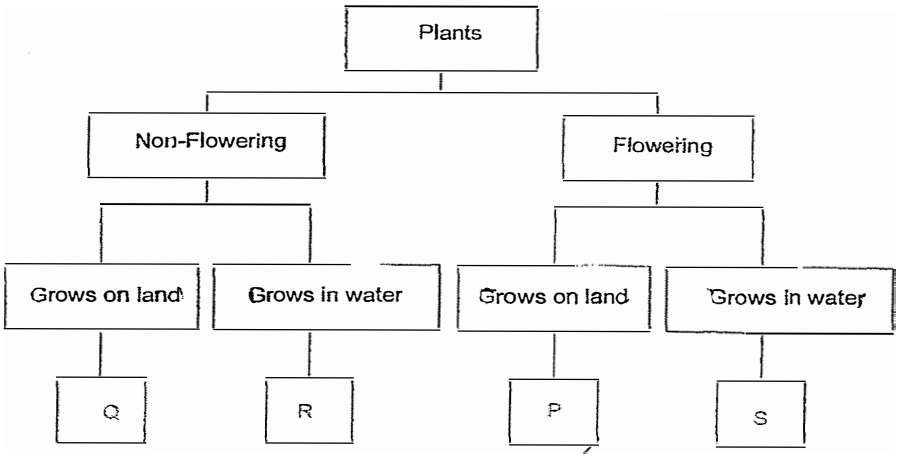
4

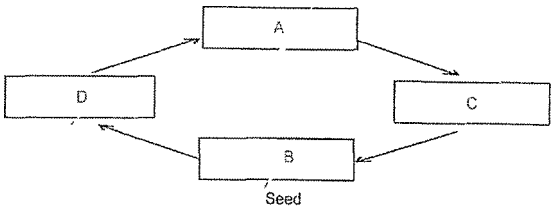
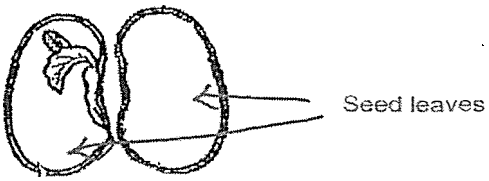
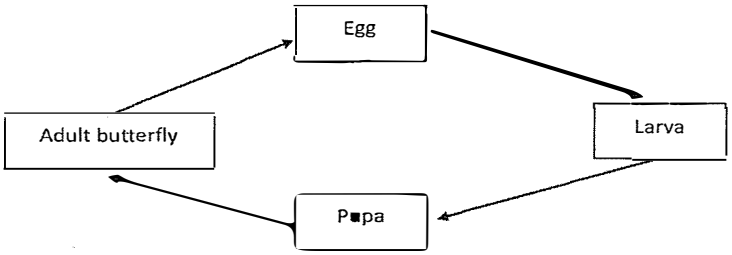
SCHOOL : SINGAPORE CHINESE GIRLS' SCHOOL
LEVEL : PRIMARY 3
SUBJECT : SCIENCE
TERM : 2023 SA2

PART 1

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
3	2	2	3	4	3	2	4	2	4
Q 11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
3	2	3	3	3	3	2	2	3	1

PART 2

Q21)	(a) Set-up D. The bread has more warmth and moisture for mould to grow. (b) Set-up C and D
Q22)	(a) As the baby plant grows, it uses up the food stored in the seed leaves OR Seed leaves provide the baby plant with food. So the food stored will become less and less (used up). (b) The plant has its leaves to make its own food,
Q23)	

Q24)	
Q25)	(a) (i) Stage C (ii) Oxygen/Air, water, warmth (b) 
Q26)	(a) Animal B, C and D. They have hair as their outer cover. (b) B doesnt have 4 legs but D has.
Q27)	 (a) (b) (i) Larva (ii) Pupa (c) (i) True (ii) False (iii) True (iv) True
Q28)	(a) Separate them by putting them into a container of water (b) Use a magnet to separate them (c) Q and S. Both cannot be separated by using magnets or by using water. / Both are non-magnetic and will float/cannot sink in water.
Q29)	(a) C D B A Or A D B C (b) By heating it (c) Steel or Iron (or Nickel/Cobalt)
Q30)	Tick " (b) The strength of the batteries" Increase the number of batteries Or use stronger batteries Copper is non-magnetic. So it cannot be made into an electromagnet.