

Test: Primary 4 - Term 4 Science (Nanyang)

Points: 65 points

Name: _____

Score: _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

Question 1 of 49

Primary 4 Science (Term 4) 2 pts

Booklet A (28 x 2 marks)

For each question from 1 to 28, four options are given. One of them is the correct answer.

A tortoise hides itself in its shell when touched.



This shows that the tortoise is a living thing because it can _____

-
- A) grow
 - B) breathe
 - C) respond
 - D) reproduce

Question 2 of 49

Primary 4 Science (Term 4) 2 pts

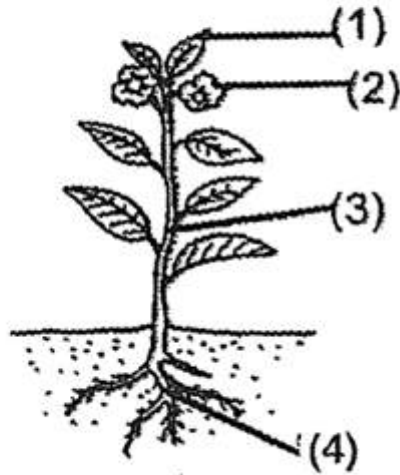
Which one of the following statements is true for ALL insects?

- A) They have tails
- B) They have a pair of wings
- C) They have three body parts
- D) They have a soft outer covering

Question 3 of 49

Primary 4 Science (Term 4) 2 pts

The diagram shows a plant.
Which part, (1), (2), (3) or (4), is the root?



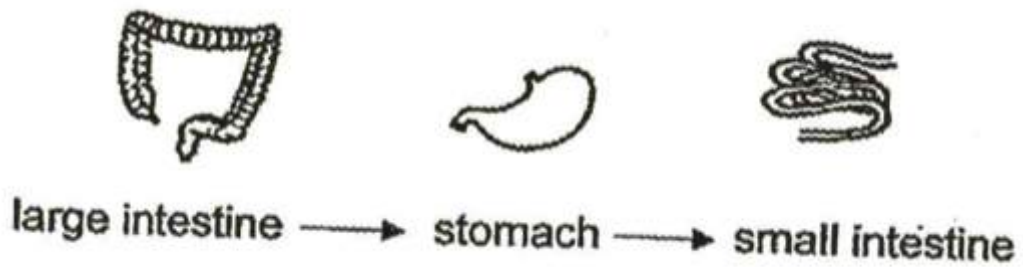
-
- A) 1
 - B) 2
 - C) 3
 - D) 4

Which one of the following shows the correct order when food moves through some parts of the digestive system?

A)



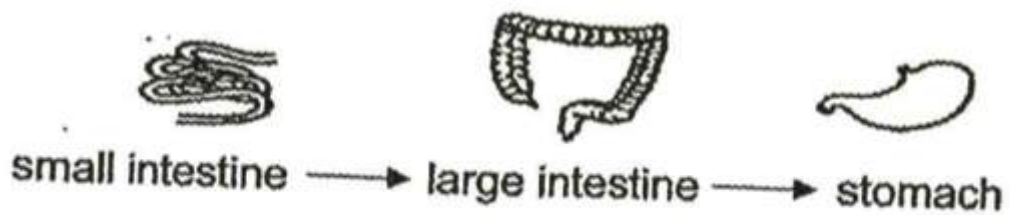
B)



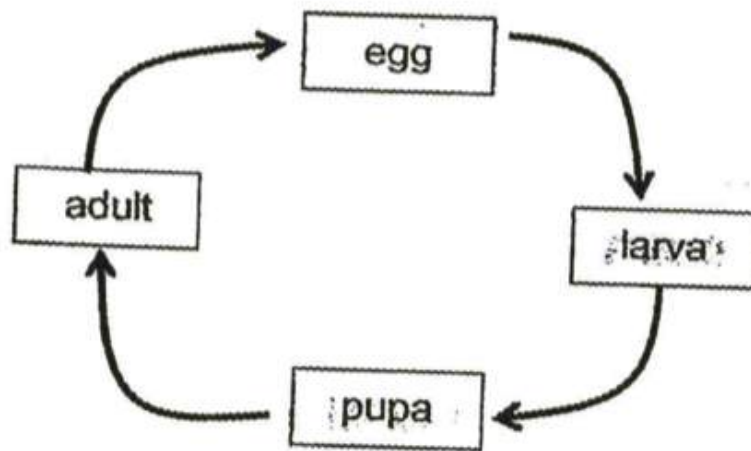
C)



D)



The diagram below shows the life cycle of an animal.



Which animal is likely to have the life cycle as shown above?

- A) chicken
- B) butterfly
- C) cockroach
- D) grasshopper

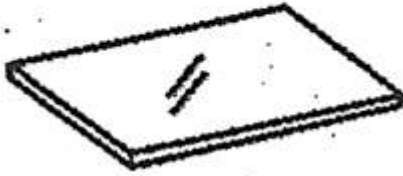
Which one of the following objects can be attracted by a magnet?

- A) Iron ball
- B) Plastic ball
- C) Rubber ball
- D) Wooden ball

Which one of the following objects can be bent easily without breaking?

A)

A sheet of glass



B)

A metal spoon

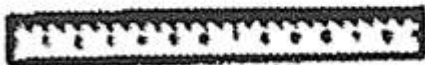
C)

A towel



D)

A wooden ruler



Which one of the following is a source of light?

A)



an apple

B)



the moon

C)



a lit candle

D)



a leaf

Question 9 of 49

Primary 4 Science (Term 4) 2 pts

Which one of the following is a source of heat?

- A) a metal ring
- B) a lighted bulb
- C) a woollen cap
- D) a cotton sock

Question 10 of 49

Primary 4 Science (Term 4) 2 pts

Which one of the following substances has a definite shape?

- A) air
- B) oil
- C) stone
- D) water

Question 11 of 49

Primary 4 Science (Term 4) 2 pts

Ganesh classified some things as shown in the table below.

| Living things | Non-living things |
|---------------|-------------------|
| rabbit | pen |
| bicycle | shirt |
| apple tree | water bottle |

His teacher identified that the **bicycle** has been wrongly classified

Which of the following statements about living things correctly explained why Ganesh was wrong?

- A** All living things can grow.
 - B** All living things can reproduce.
 - C** All living things need air, food and water to survive.
 - D** All living things can move from one place to another.
-

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

Question 12 of 49

Primary 4 Science (Term 4) 2 pts

Which one of the following statements about plants are correct?

- A: All plants have roots
- B: All plants have stems
- C: All plants have leaves
- D: All plants reproduce by seeds

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

Question 13 of 49

Primary 4 Science (Term 4) 2 pts

Study the table below.

A tick (✓) shows that the animal has the characteristic.

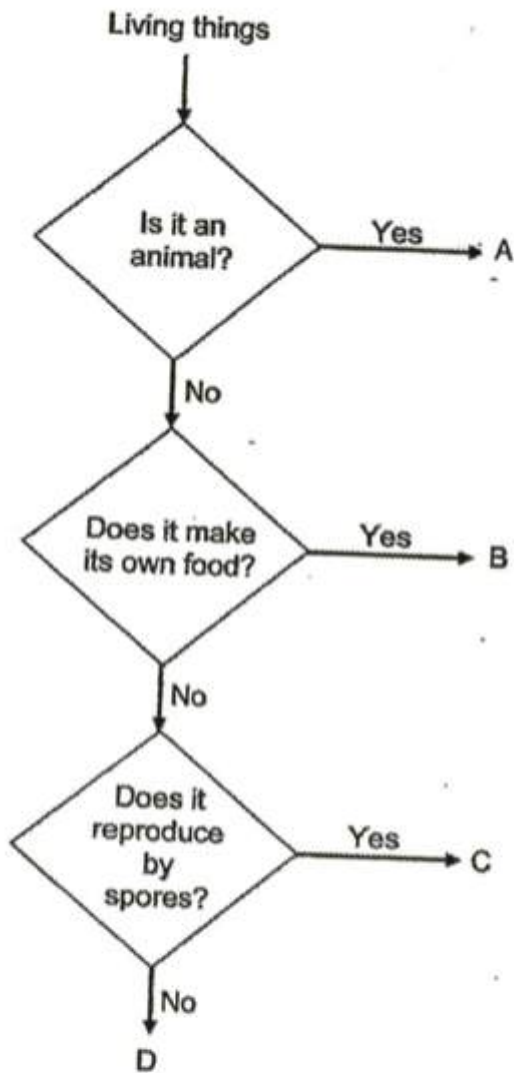
| Characteristic | Animals | | |
|--------------------------|---------|---|---|
| | P | Q | R |
| Has scales | | | ✓ |
| Has feathers | | ✓ | |
| Has moist skin | ✓ | | |
| Reproduce by laying eggs | ✓ | ✓ | ✓ |

Which of the following correctly represent animals P, Q and R?

| | Animal P | Animal Q | Animal R |
|-----|------------|-----------|------------|
| (1) | owl | goldfish | salamander |
| (2) | toad | owl | goldfish |
| (3) | goldfish | crocodile | toad |
| (4) | salamander | toad | crocodile |

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

Study the flowchart below.

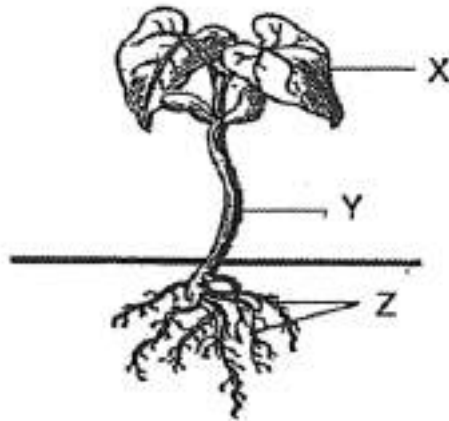


Based on the flowchart above, which one of the following correctly represents the mushroom and bird's nest fern?

| | mushroom | bird's nest fern |
|-----|----------|------------------|
| (1) | A | B |
| (2) | B | D |
| (3) | C | A |
| (4) | C | B |

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

The diagram below shows a plant.

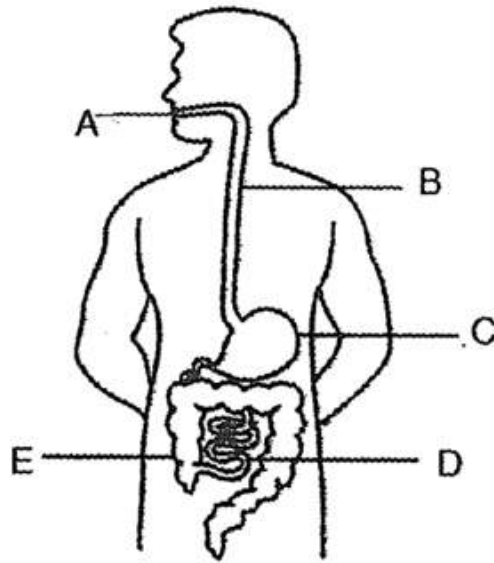


Which of the following represents the functions of parts X, Y and Z?

| | X | Y | Z |
|-----|--------------------------|---------------------------------|---------------------------------|
| (1) | produces flowers | holds the plant upright | makes food for the plant |
| (2) | holds the plant upright | produces flowers | absorbs water and mineral salts |
| (3) | makes food for the plant | holds the plant upright | absorbs water and mineral salts |
| (4) | makes food for the plant | absorbs water and mineral salts | produces flowers |

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

The diagram below shows the human digestive system.



At which parts do digestion take place?

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

Wei Jie made the following statements about the human organ system.

A: The digestive system breaks down food into simpler substances

B: The skeletal system and the muscular system enable movement

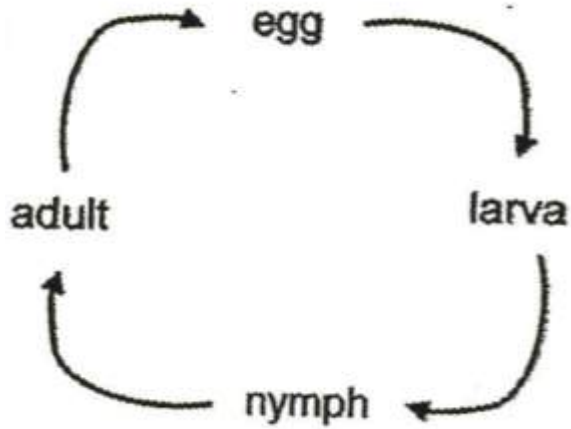
C: The circulatory system carries digested food in the blood to all parts of the body

Which of the statements above are correct?

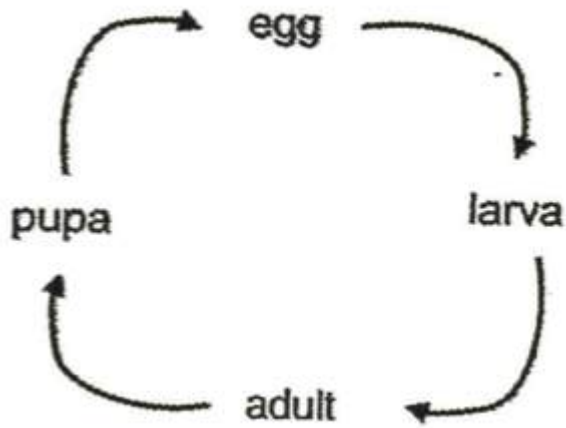
-
- A) A and B only
- B) A and C only
- C) C and B only
- D) A, B and C

The beetle has four stages in its life cycle. Which one of the following life cycle diagrams correctly shows the life cycle of a beetle?

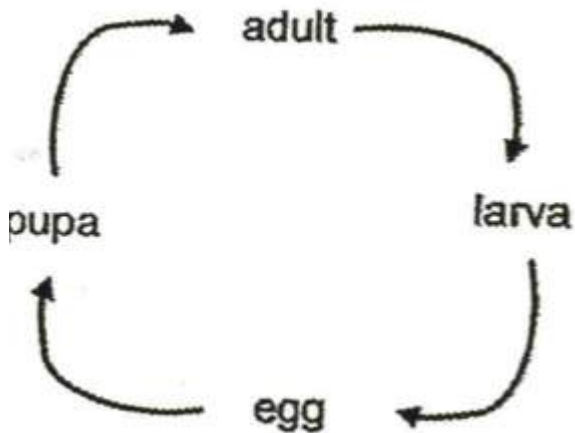
A)



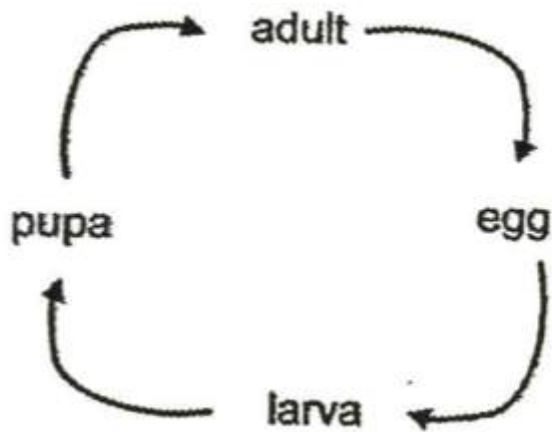
B)



C)



D)



Question 19 of 49

Primary 4 Science (Term 4) 2 pts

Lucas observed animals X and Y over a period of time and recorded his observations in the table below.

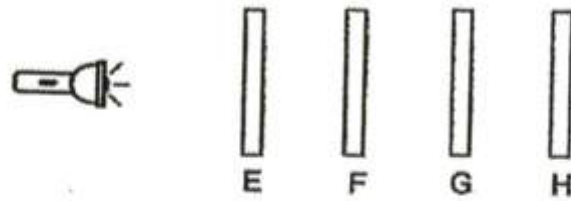
| Observations | Animal X | Animal Y |
|---------------------------------------|----------|----------|
| It has four stages in its life cycle. | Yes | No |
| The young resembles the adult. | No | No |
| The eggs are laid in water. | Yes | Yes |
| The young molts several times. | Yes | No |

Which one of the following correctly represents animals X and Y?

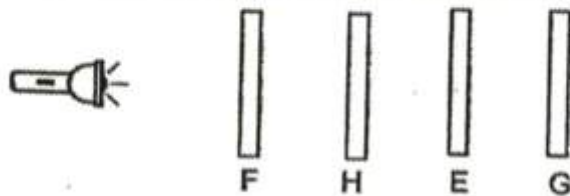
| | Animal X | Animal Y |
|-----|-----------|-------------|
| (1) | butterfly | chicken |
| (2) | mosquito | frog |
| (3) | cockroach | butterfly |
| (4) | beetle | grasshopper |

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

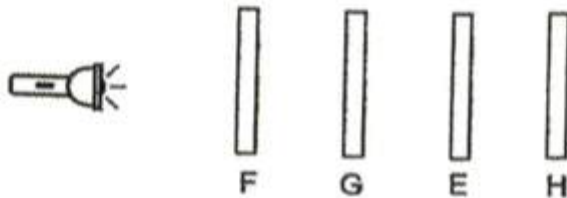
Elkan arranged four sheets, E, F, G and H, in a straight line as shown in set-ups 1, 2 and 3 below. The four sheets are of the same thickness and size, but they are made of different materials.



Set-up 1



Set-up 2



Set-up 3

He shone light of the same brightness at each set-up and recorded his observations in the table below.

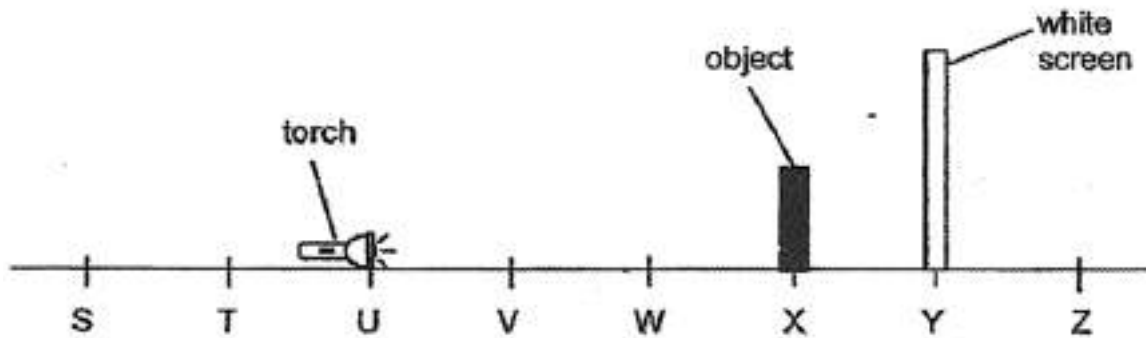
| Set-up | Observation |
|--------|---|
| 1 | A bright patch of light was only seen on sheet E. |
| 2 | A bright patch of light was only seen on sheet H. |
| 3 | A dim patch of light was only seen on sheet E. |

Based on Elkan's observations in the table above, which one of the following best represents the materials that were most likely used to make sheets E, F, G and H?

| | Sheet E | Sheet F | Sheet G | Sheet H |
|-----|---------------|---------------|---------------|---------------|
| (1) | aluminium | clear plastic | cardboard | tracing paper |
| (2) | clear plastic | cardboard | frosted glass | clear glass |
| (3) | cardboard | clear plastic | frosted glass | aluminium |
| (4) | tracing paper | frosted glass | cardboard | clear glass |

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

Meredith set up a torch, object and screen at positions U, X and Y respectively, as shown in the diagram below.



She recorded the height of the shadow formed on the white screen when the torch was switched on.

Which of the following positions could she use so that the shadow formed on the screen would be larger?

| | position of torch | position of object | position of white screen |
|---|-------------------|--------------------|--------------------------|
| A | V | Y | Z |
| B | T | V | W |
| C | S | V | X |
| D | W | X | Y |

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

Wei Shen placed his right hand into the water in basin E and his left hand into the water in basin G at the same time.

After 30 seconds, he placed both his hand into the water in basin F. His right hand felt cool but left hand felt warm.



Which one of the following shows the possible temperatures of the water in the three basins, E, F and G?

| Temperature of water ($^{\circ}\text{C}$) | | | |
|---|---------|---------|---------|
| | Basin E | Basin F | Basin G |
| (1) | 12 | 24 | 45 |
| (2) | 24 | 12 | 45 |
| (3) | 45 | 24 | 12 |
| (4) | 12 | 45 | 24 |

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

In his kitchen, at room temperature, Eugene placed a metal spoon into his cup of hot coffee as shown in the diagram below.

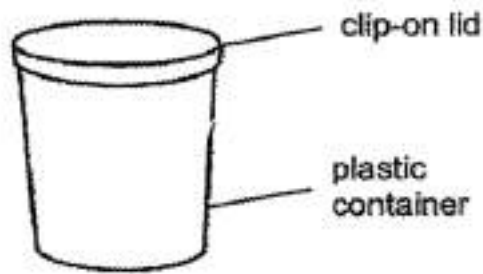


Which of the following correctly represents the flow of heat?

| | Heat flowed from | Heat flowed to |
|---|------------------|-----------------|
| A | hot coffee | metal spoon |
| B | surrounding air | hot coffee |
| C | hot coffee | surrounding air |
| D | metal spoon | hot coffee |

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

Mei Lin has a 600 cm^3 plastic container with a clip-on lid as shown in the diagram below.

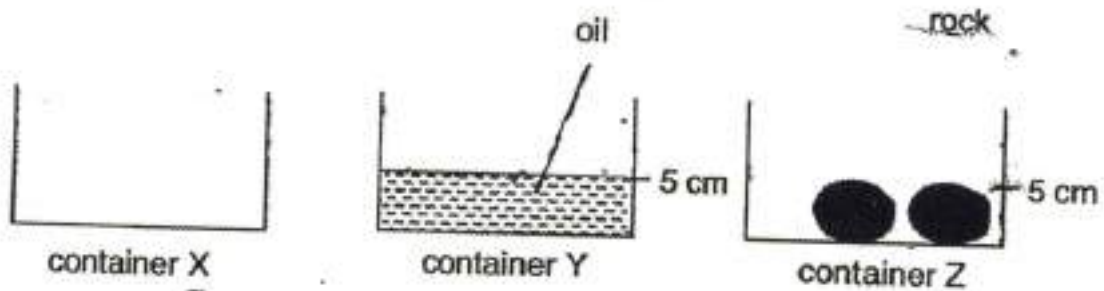


Which of the following matter can be totally placed into the plastic container and still allow Mei Lin to clip the lid on?

- A Pour in 550 cm^3 of milk
- B Pump in 700 cm^3 of oxygen
- C Put in 6 wooden balls each with a volume of 100 cm^3

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

i. Colin set up three identical containers, X, Y and Z, as shown below. ---



He then used containers X, Y and Z to collect water from the same tap.

Which one of the following correctly shows the time taken for the containers to be filled to the brim with water?

| Time taken for the containers to be filled to the brim with water | |
|---|---------|
| shortest → longest | |
| (1) | X, Y, Z |
| (2) | Y, Z, X |
| (3) | Z, X, Y |
| (4) | Z, Y, X |

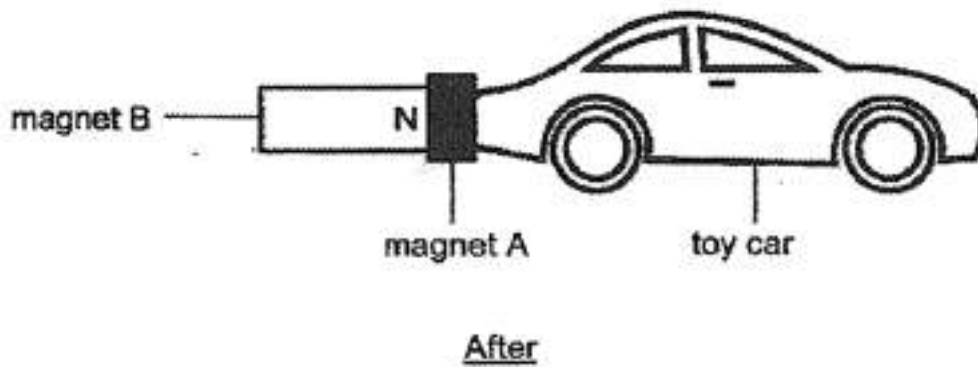
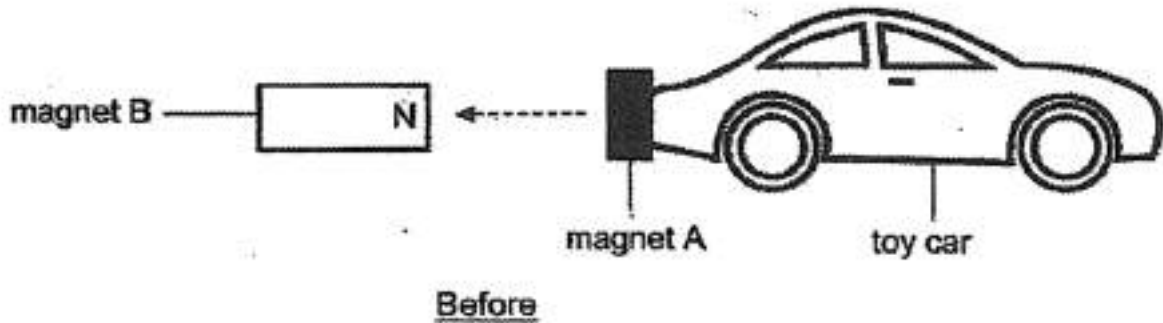
- A) 1
 B) 2
 C) 3
 D) 4

Li Ting put her belongings in her handbag, closed it tight and went out. When it rained, she observed that all her belongings in her handbag were soaked with water.

Which of the following materials was her handbag most likely made of?

- A) steel
 B) cotton
 C) plastic
 D) rubber

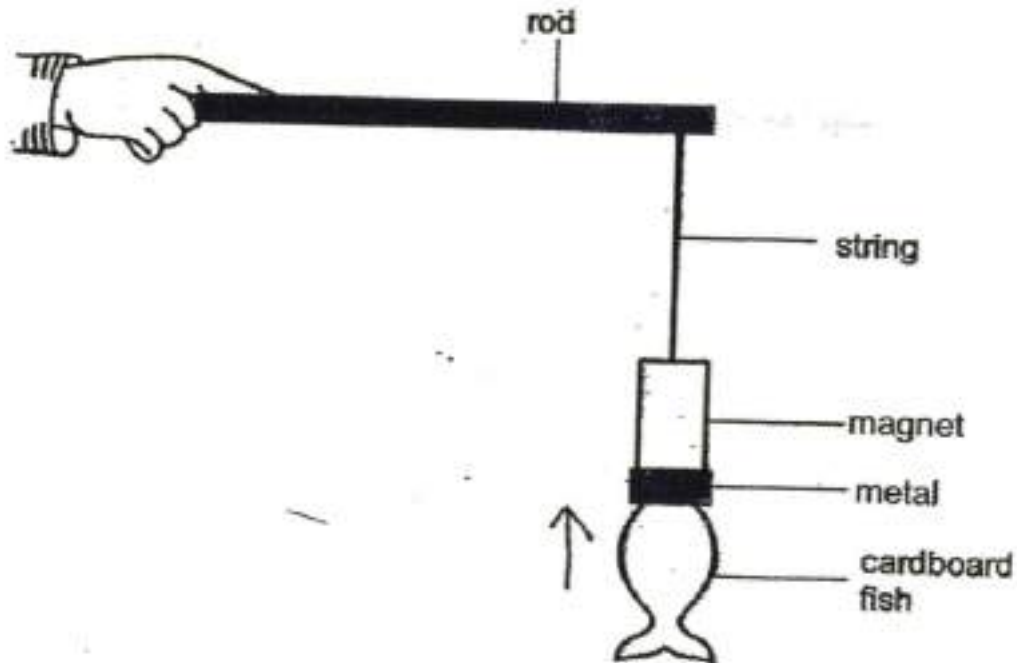
Marcus glued magnet A behind his toy car and held magnet B near it. He observed that the toy car moved backwards and was attracted to magnet B as shown below.



Which one of the following should Marcus do in order to make his toy car move forward?

- A) Replace magnet B with a steel bar
- B) Flip magnet B and hold it near magnet A
- C) Move magnet B further away from magnet A
- D) Stroke magnet B with an iron nail many times

Farah attached a piece of metal to a cardboard fish. She then held a rod with a magnet attached to it above the cardboard fish. She made the following observation as shown below.



Which one of the following materials is most likely used to make the metal attached to the cardboard fish?

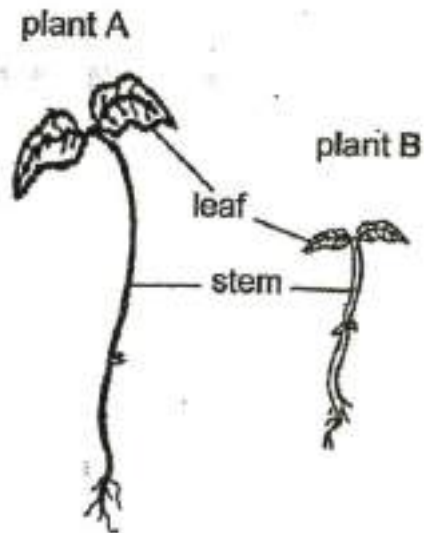
- A) Iron
- B) Gold
- C) Copper
- D) Aluminium

Booklet B

This section is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The diagram below shows two plants.

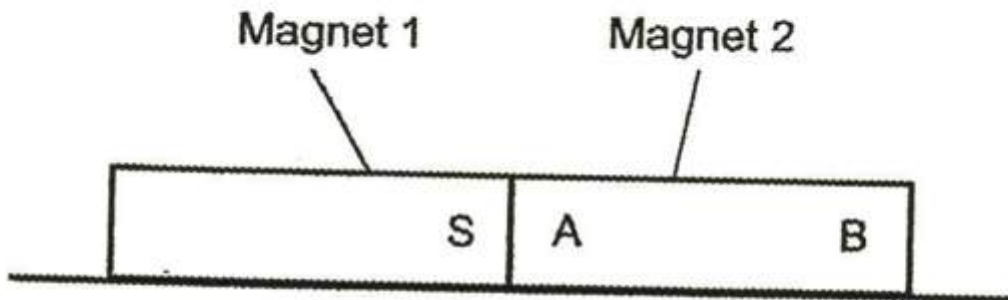


- (a) What is one difference between the leaves of plant A and the stem of plant B?

The leaves of plant A is _____ than the leaves of plant B. [1]

- (b) The _____ help both plants to keep themselves upright. [1]

Two magnets are placed together as shown below.



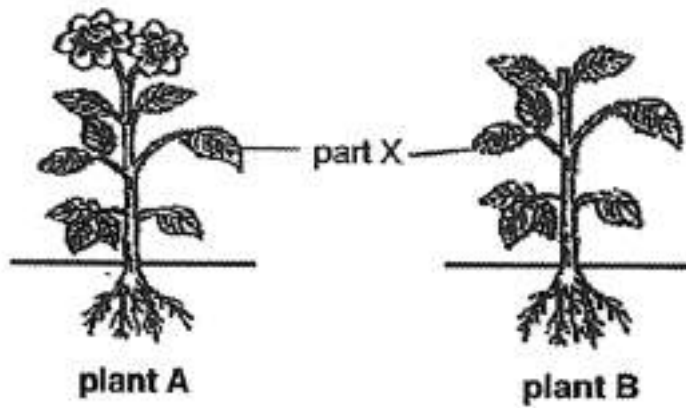
The south pole of magnet 1 is labelled S.

Identify the poles labelled A and B on magnet 2.

A: _____

B: _____

Study the diagrams below carefully.

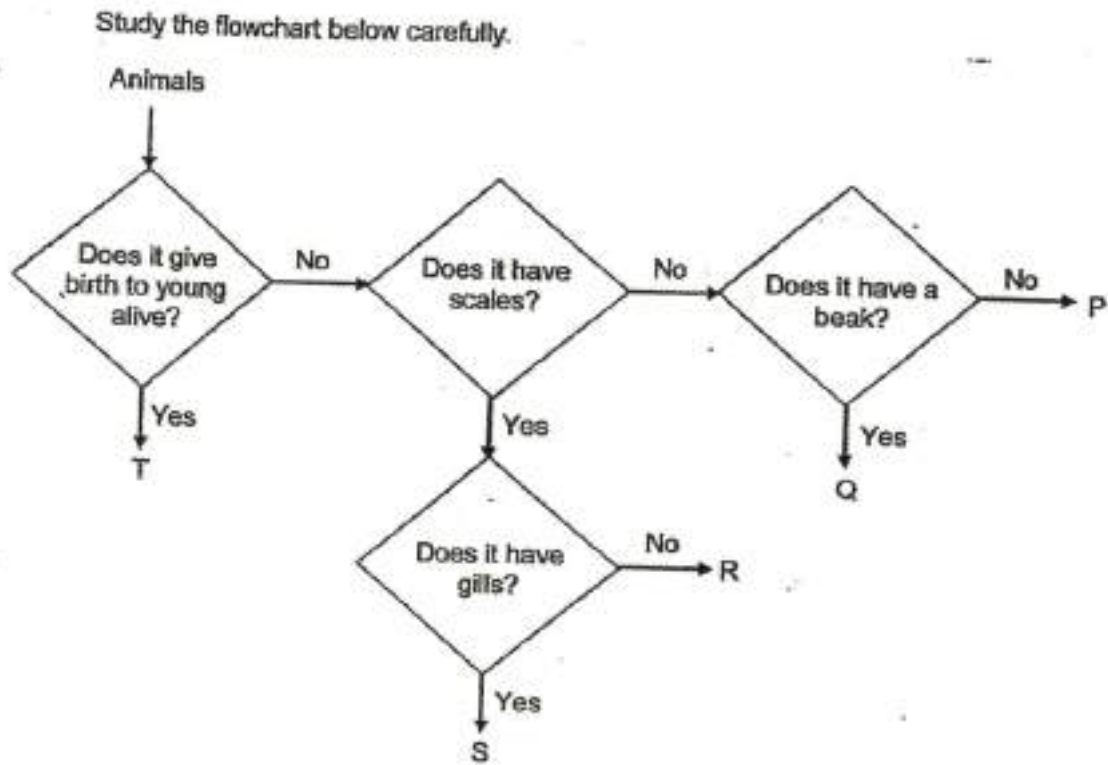


State one function of part X

Study the list of plants below. Classify all the plants in the table below and give a suitable heading for the table. [2]

| | | | |
|-----------------|------------|------------------|------|
| sunflower plant | mango tree | bird's nest fern | moss |
|-----------------|------------|------------------|------|

| | |
|---------|--|
| (c)(i) | |
| (c)(ii) | |



(a) Based on the flowchart above, state all the characteristics of animal S. [1]

Based on the flowchart above, state one difference between animal P and animal Q

Based on the flow chart above, which animal group does animal R most likely belong to?

Question 37 of 49

Primary 4 Science (Term 4)

1 pt

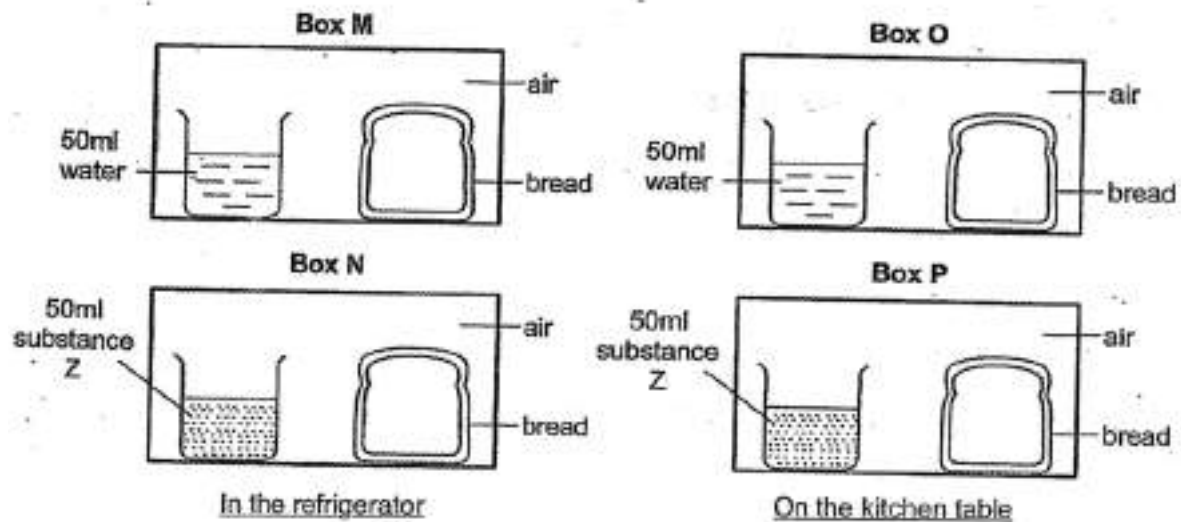
Based on the flow chart above, state an example of animal T.

Question 38 of 49

Primary 4 Science (Term 4)

0 pts

Mitchell conducted an experiment using identical slices of bread as shown below. He placed boxes M and N in the refrigerator and boxes O and P on the kitchen table. Substance Z absorbs water from the surrounding.



- (a) In which box, M, N, O or P, would appear on the bread first?
Explain your answer.

[2]

Question 39 of 49

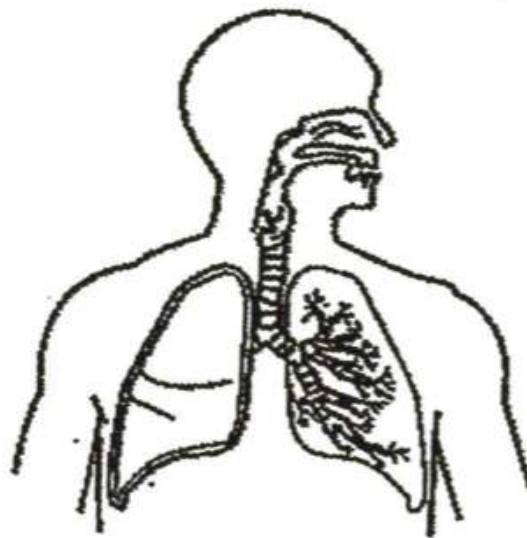
Primary 4 Science (Term 4)

1 pt

Which group of living things does mould belong to?

State how mould obtains food for growth

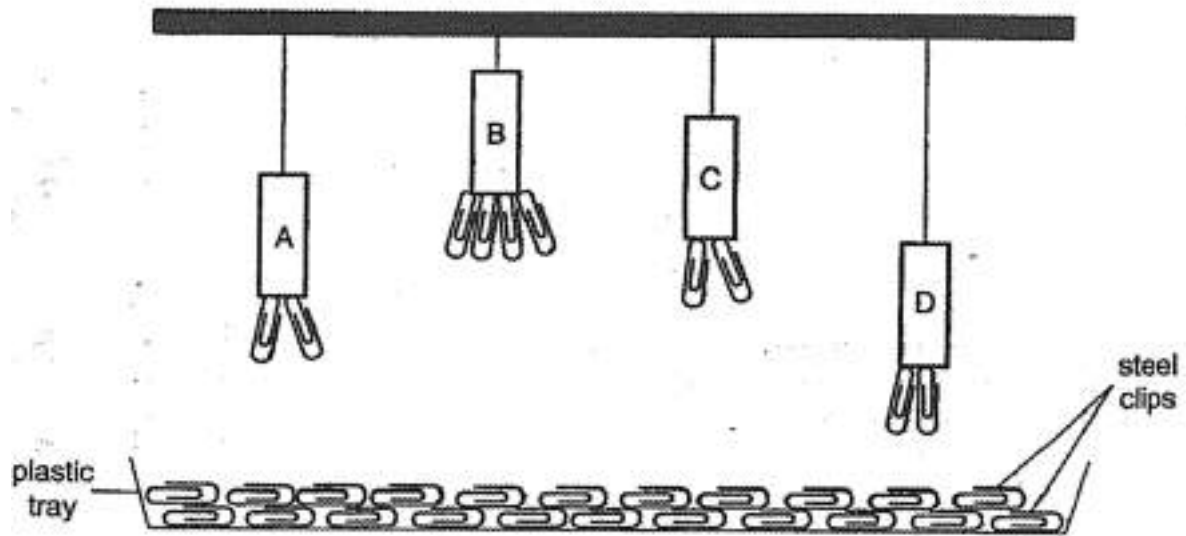
The diagram below shows a human organ system.



(a)(i) Identify the human organ system shown above.

Match the options below:

Tiffany hung four magnets, A, B, C and D, above a plastic tray of identical steel clips. The diagram below shows her observation.



(a) Based on her observation, arrange the magnets in the order of their magnetic strength, beginning with the strongest magnet. [1]

1. [] strongest

A. D

2. [] strong

B. B

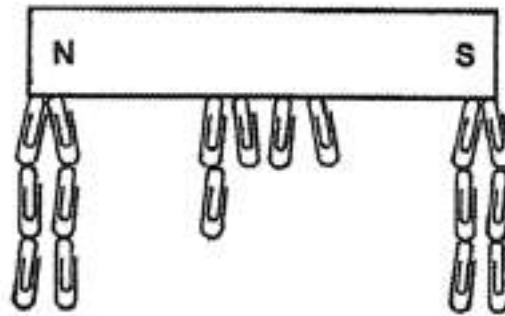
3. [] weak

C. C

4. [] weakest

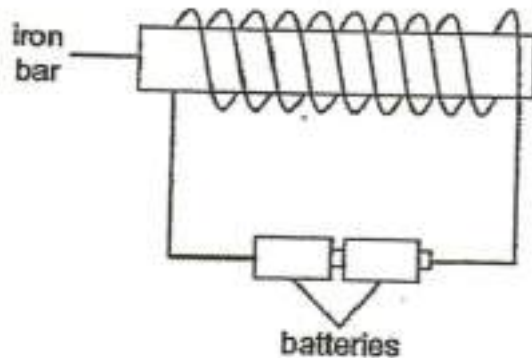
D. A

Tiffany then placed magnet E into the plastic tray of steel clips and made the following observation.



- (b) Give a reason why there were most steel clips attracted to the poles of the magnet. [1]
-

Tiffany then set up another experiment with an iron bar as shown below.



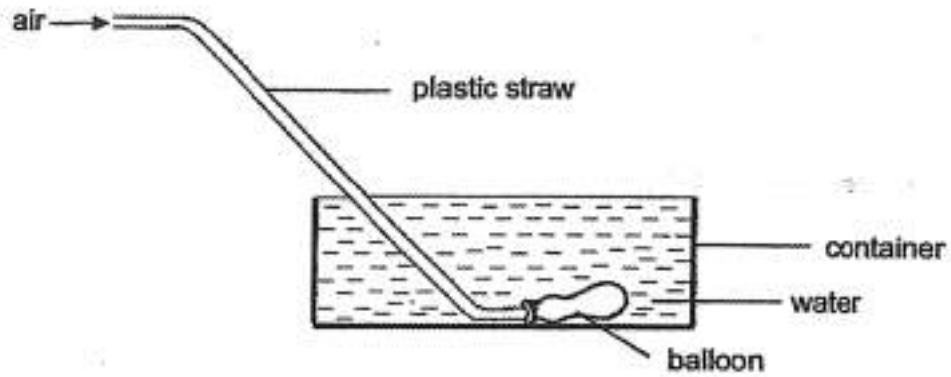
She then hung the iron bar above the same plastic tray of identical steel clips. She repeated the experiment with different number of coils of wire around the iron bar and recorded her results as shown in the table below.

| Number of coils of wire around the iron bar | Number of steel clips attracted by the iron bar |
|---|---|
| 10 | 3 |
| 15 | 6 |
| 20 | 12 |
| 25 | 18 |

- (c)(i) Based on the results above, state the relationship between the number of coils of wire around the iron bar and the number of steel clips attracted by the iron bar [1]

Besides increasing the number of coils of wire around the iron bar, suggest another way for the electromagnet to attract more than 18 steel clips.

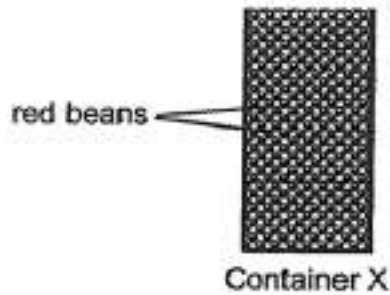
40. Timothy set up an experiment as shown in the diagram below. He filled the container to the brim with water. Then, he blew air through the plastic straw.



- (a)(i) What would happen to the water in the container when the balloon is inflated? [1]
-

Explain your answer in (a)

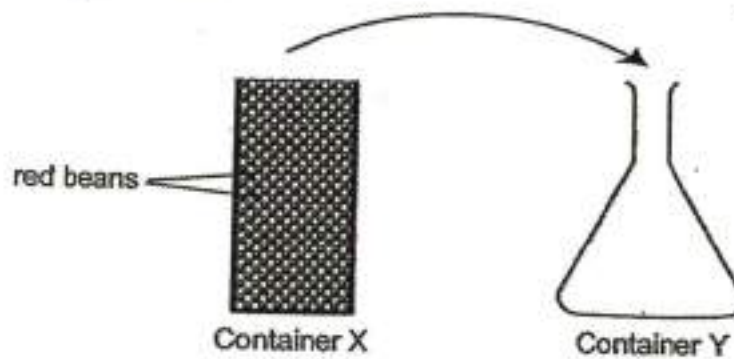
In another experiment, Timothy filled container X, which has a volume of 250cm^3 , to the brim with red beans as shown in the diagram below.



Timothy's teacher told him that the volume of red beans in container X was actually less than 250cm^3 .

- (b) Explain why the volume of the red beans was less than 250cm^3 . [1]

- C. Timothy then poured the red beans from container X into container Y as shown in the diagram below.



Timothy observed that the red beans took the shape of container Y. He concluded that red beans are in the liquid state.

- Using the properties of matter, explain why Timothy's conclusion is wrong. [1]