**Test:** Primary 4 - Term 2 (SA1) Science (Catholic High)

**Points:** 56 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 52

Primary 4 Science (Term 2) 2 pts

**Booklet A (24 x 2 marks)**
**For each question from 1 to 28, four options are given. One of them is the correct answer.**

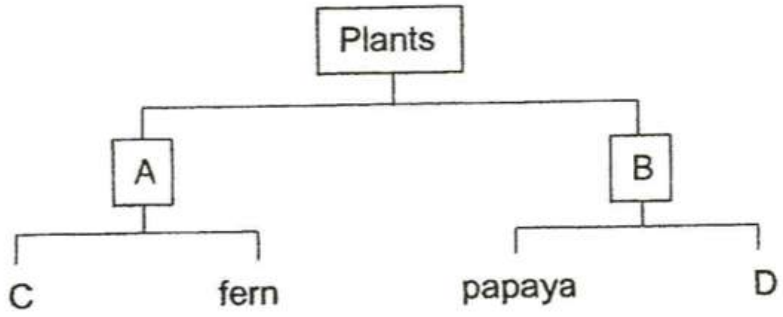
Jenny bought a pet dog last year. She observed that it has the following characteristics.
A: It eats meat
B: It has hair on its body
C: It barked when Jenny stepped on its tail
D: It gave birth to a litter of puppies last month

Which of the above characteristics show that her dog is a living thing?

---

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

Study the chart below.

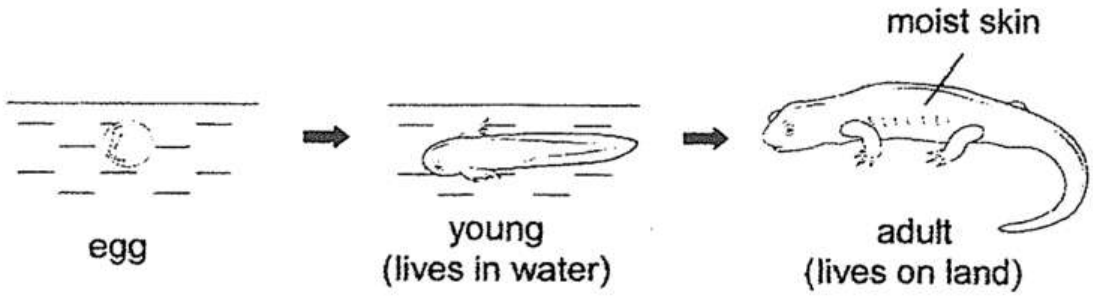



Which of the following correctly represents A, B, C and D?

| | A | B | C | D |
|---|---|---|---|---|
| (1) | flowering | non-flowering | moss | mango |
| (2) | flowering | non-flowering | mushroom | orchid |
| (3) | non-flowering | flowering | mushroom | hibiscus |
| (4) | non-flowering | flowering | moss | rambutan |

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

The diagram below shows how animal S grows.




Which group of animals does animal S belong to?

---

- **A)** fish
- **B)** reptile
- **C)** mammal
- **D)** amphibian

## Question 4 of 52

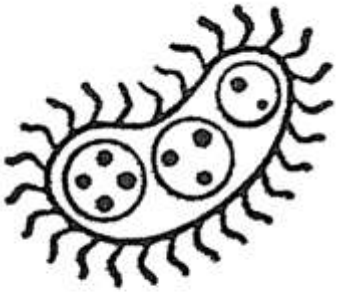
Primary 4 Science (Term 2) 2 pts

Bruce discovered a living thing in his darden and described it as follows
- It lives on tree trunks
- It reproduces by spores
- It feeds on other living things
- It prefers a shady and moist environment

Which of the following living things did Bruce discover?

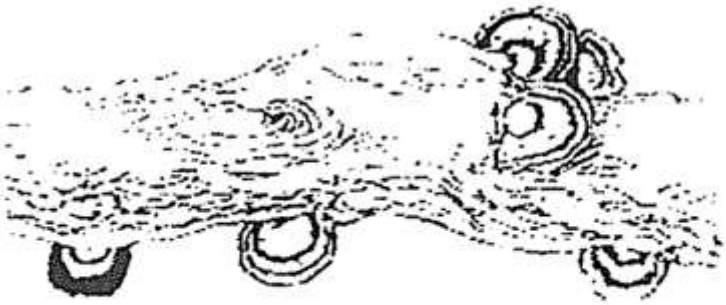
---

**A)**



bacteria

**B)**

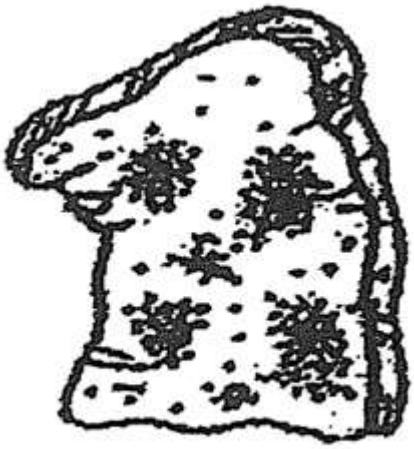


fungi

**C)**

fern

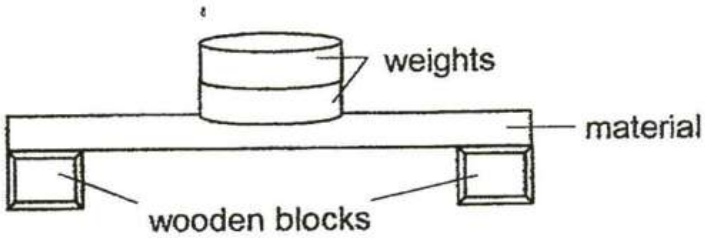
D)



bread mould

**Question 5 of 52** Primary 4 Science (Term 2) 2 pts

Four materials W, X, Y and Z were tested for their strength. Different number of weights were placed on each material till it broke.



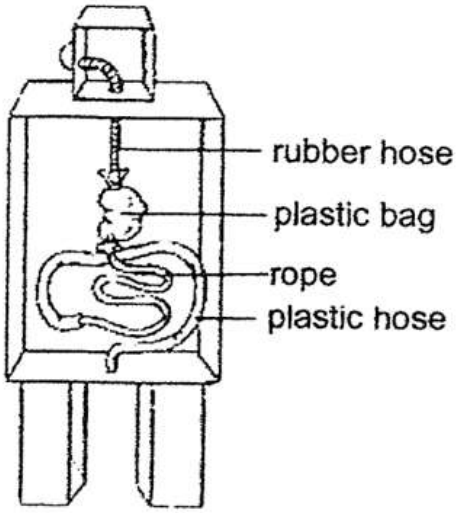

| Material | Number of weights added till the material broke |
|---|---|
| W | 5 |
| X | 8 |
| Y | 1 |
| Z | 3 |

Which of the following must be kept the same to ensure a fair test?

A size of materials
B thickness of materials
C smoothness of weights
D colour of wooden blocks

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

Ali made a model of one of the human body systems as shown below.

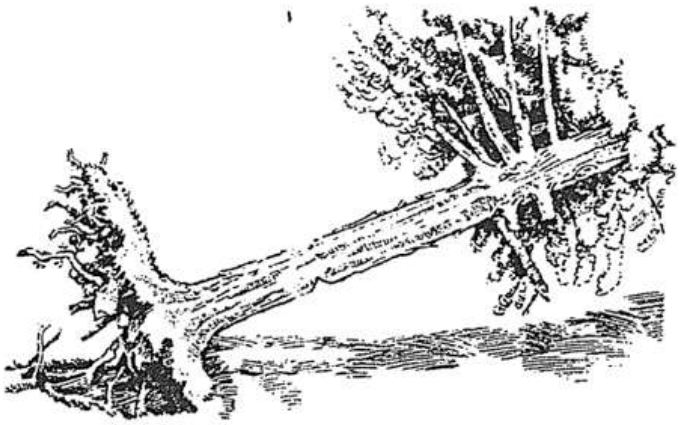



Which part of the human body does the plastic bag represent?

---

- **A)** lung
- **B)** heart
- **C)** rib cage
- **D)** stomach

The diagram below shows an uprooted tree after a thunderstorm.

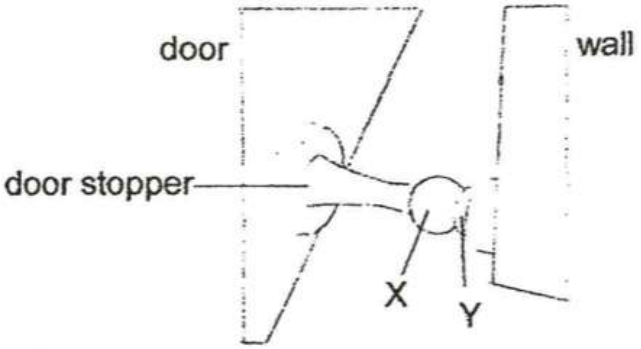


Why did the uprooted tree die within a week?

---

- **A)** The stem was no longer able to hold the tree upright
- **B)** The leaves of the tree were not able to make food after a week
- **C)** The branches of the tree were not able to spread out the leaves to trap sunlight
- **D)** The roots of the tree were not able to take in water and mineral salts from the soil

The diagram below shows a magnetic door stopper below.



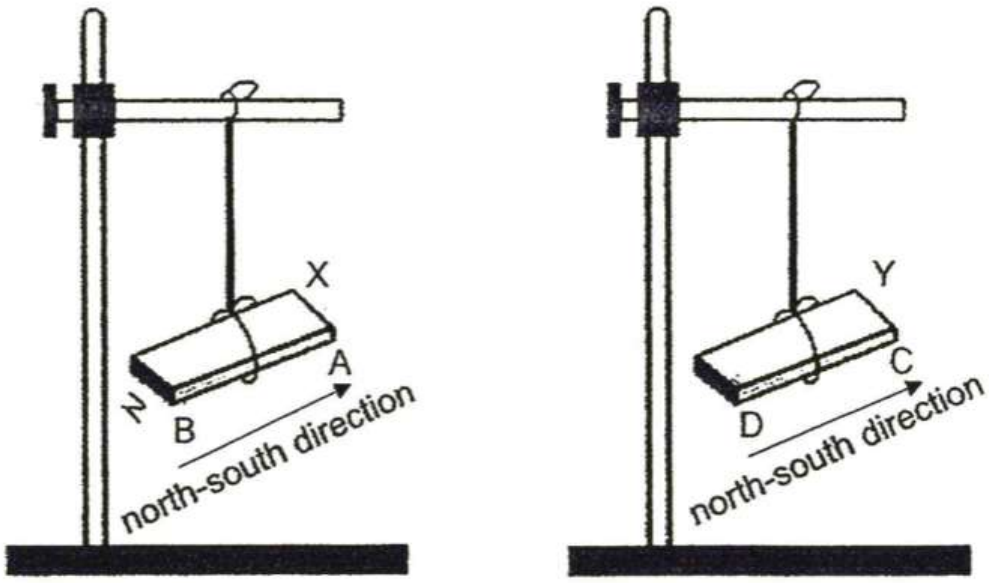

Which of the following can X and Y be made of so that the door can be kept open?

| | X | Y |
|---|---|---|
| (1) | steel | iron |
| (2) | steel | magnet |
| (3) | copper | aluminium |
| (4) | magnet | aluminium |

---

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

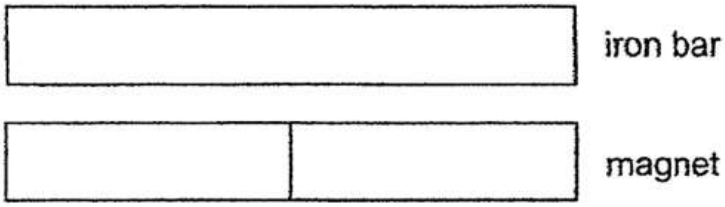
Two different magnets X and Y are freely suspended as shown below. The poles of the magnets are labelled as A, B, C and D.




What will happen when both magnets are brought closer together?

- **A)** Poles A and C will repel each other
- **B)** Poles B and C will repel each other
- **C)** Poles B and D will attract each other
- **D)** Poles A and D will not react to each other

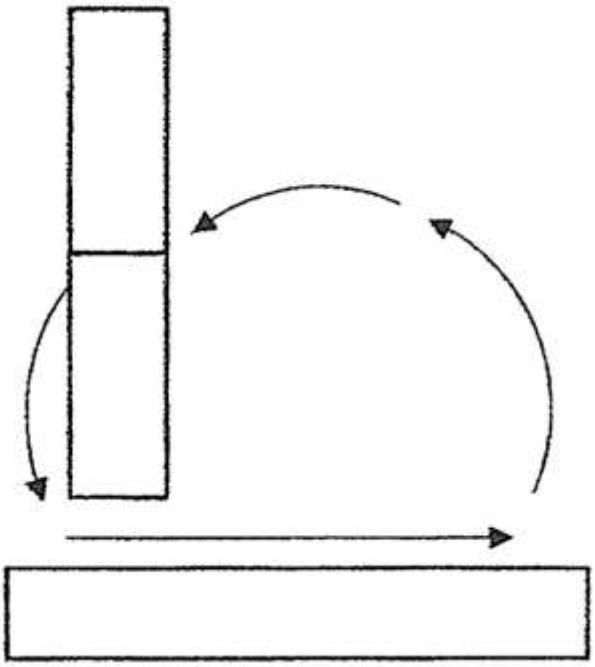
Nita has an iron bar and a magnet. She wants to magnetise the iron bar using the stroking method.



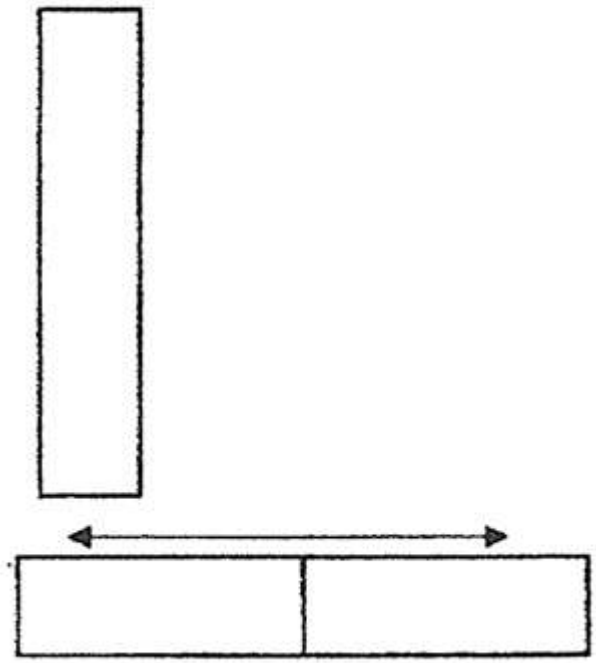

Which one of the following shows the correct stroking method?

---

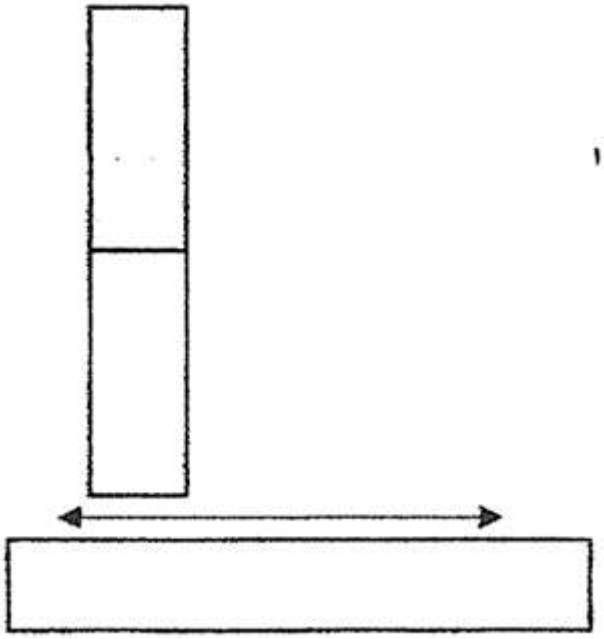
A)



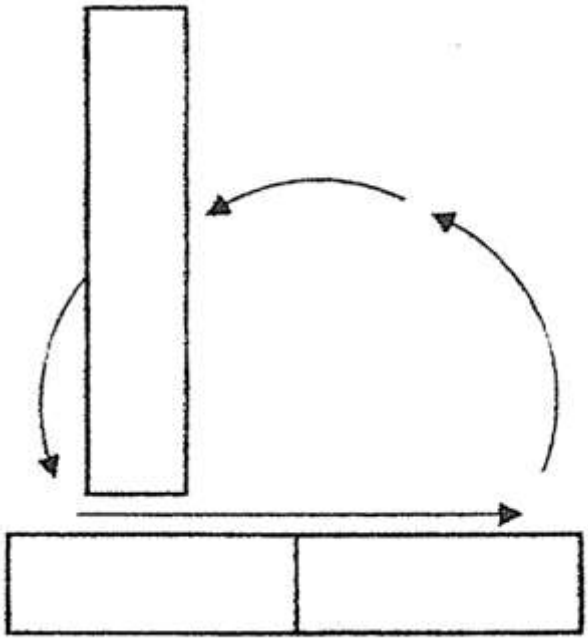
B)



C)

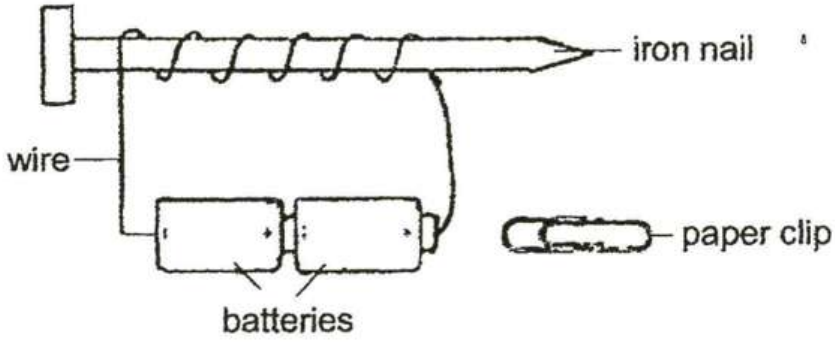


D)



**Question 11 of 52** Primary 4 Science (Term 2) 2 pts

Weiling set up the following experiment.




She tried to use the iron nail to pick up the paper clip but was unable to do so. Why was the iron nail not able to attract the paper clip?

- **A)** There was only one nail in the set-up
- **B)** The iron nail was not a magnetic material
- **C)** The batteries were connect4ed in the wrong direction
- **D)** The paper clip was made of a non-magnetic material

## Question 12 of 52

Primary 4 Science (Term 2) 2 pts

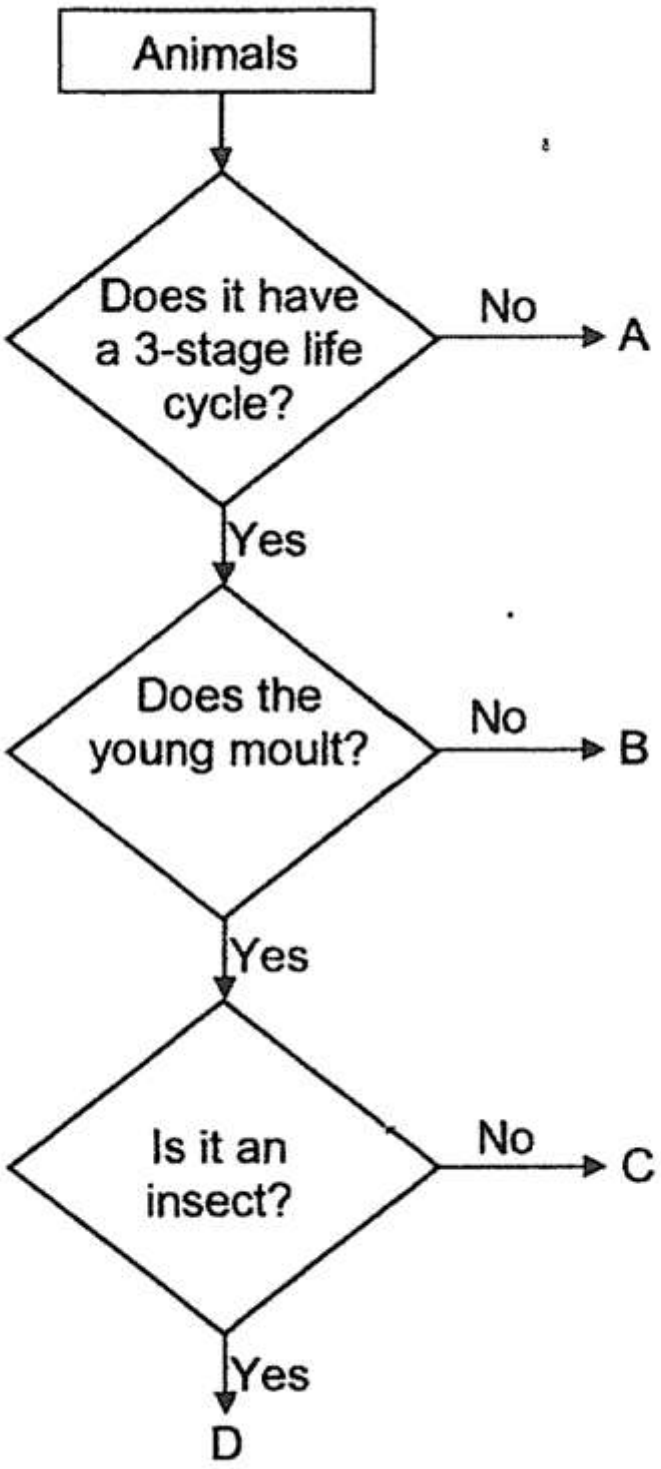
Andrea made some statements about the differences between a grasshopper nymph and an adult grasshopper. Which of the following statements are correct?

A A grasshopper nymph is bigger than an adult grasshopper
B A grasshopper nymph cannot reproduce but an adult grasshopper can reproduce
C A grasshopper nymph does not have wings but an adult grasshopper has wings
D A grasshopper nymph does mot feed at all but an adult grasshopper feeds on leaves

---

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

Study the chart below.



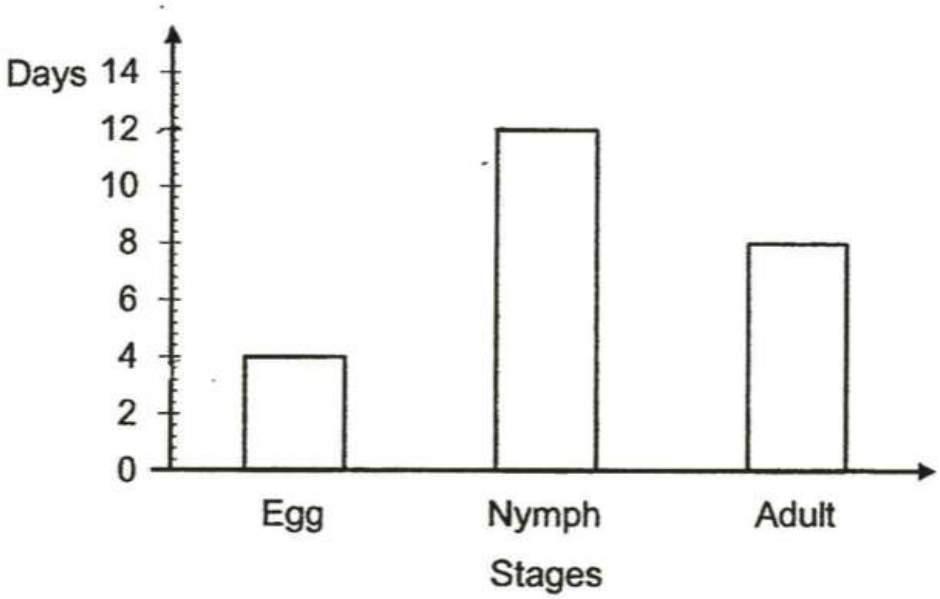

Which letter represents the cockroach?

- **A)** A
- **B)** B
- **C)** C

D) D

**Question 14 of 52** Primary 4 Science (Term 2) 2 pts

The graph below shows the number of days in each stage of the life cycle of an insect which lives in the water.




Which of the following information obtained from the graph is correct?

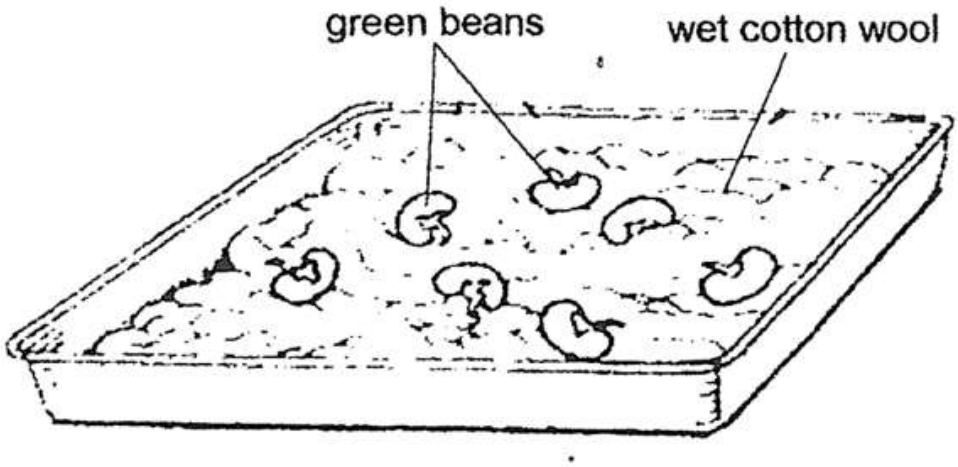
A) The insects lifespan is less than 3 weeks

B) The insect takes 8 days to become a nymph

C) The insect lives in the water for 12 days as a nymph

D) It takes 24 days to become an adult after the egg is hatched

Wei Ming placed some beans in a tray and observed the growth.




He recorded his observations below.

A Two green leaves appear.
B A tiny shoot grows upwards.
C Seed leaves dry and drop off.
D The bean absorbs water and swells up.
E A root grows downwards towards the presence of water.

Which of the following shows the correct order of growth?

---

- **A)** A → B → E → C → D
- **B)** B → A → C → D → E
- **C)** C → B → E → D → A
- **D)** D → E → B → A → C

## Question 16 of 52

Primary 4 Science (Term 2) 2 pts

Mike wanted to find out if the growth of bean seeds will be affected by temperature. He placed the same number of bean seeds in different containers with moist cotton wool. He then placed the containers at locations with different temperatures. After 3 days, he counted the number of seeds that grew and recorded his results as shown below.

| Temperature (°C) | Number of seeds grown |
|---|---|
| 10 | 0 |
| 20 | 7 |
| 35 | 16 |
| 40 | 9 |

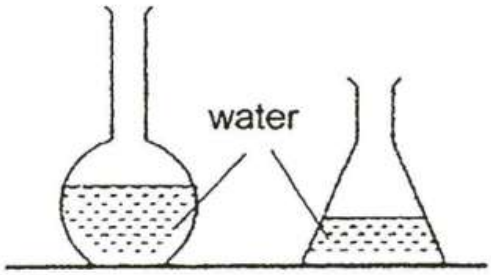
What could Mike conclude from the table above?

- **A)** Beans seeds could not grow above 30°C
- **B)** Beans seeds not grow at any temperature
- **C)** The best temperature for beans seeds to grow was 35°C
- **D)** Number of seeds grown increased as temperature increased

## Question 17 of 52

Primary 4 Science (Term 2) 2 pts

Raj poured 200 ml of water into each container as shown below.




Raj concluded that water does not _____.

- **A)** occupy space
- **B)** have a definite mass
- **C)** have a definite shape
- **D)** have a definite volume

**Question 18 of 52** Primary 4 Science (Term 2) 2 pts

Study the table below.

| | Has a fixed volume |
|---|---|
| Has a fixed shape | X |
| Has no fixed shape | Y |

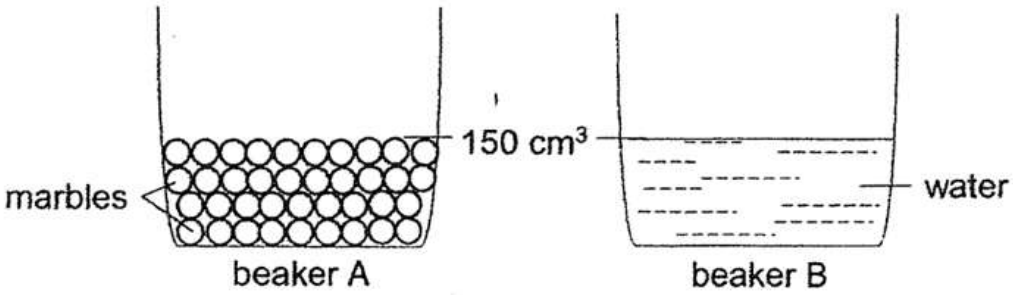
Which of the following represents X and Y in the table above?

A air
B ice
C heat
D water

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

**Question 19 of 52** Primary 4 Science (Term 2) 2 pts

Two similar beakers are used in the following experiment. Beaker A is filled with marbles to the 150 $cm^3$ mark. Beaker B has 150 $cm^3$ of water.

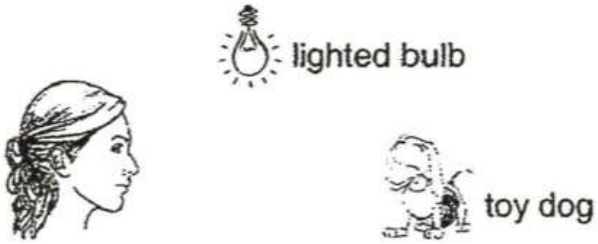



What will the water level be in beaker A after the water in beaker B is completely poured into beaker A?

- **A)** 100cm3
- **B)** 150cm3
- **C)** 260cm3
- **D)** 300cm3

**Question 20 of 52** Primary 4 Science (Term 2) 2 pts

Look at the picture below.

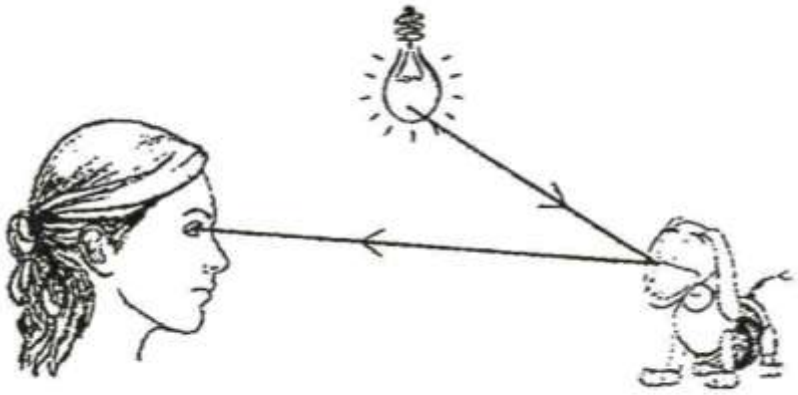



Which one of the following explains why Sally can see the toy dog?

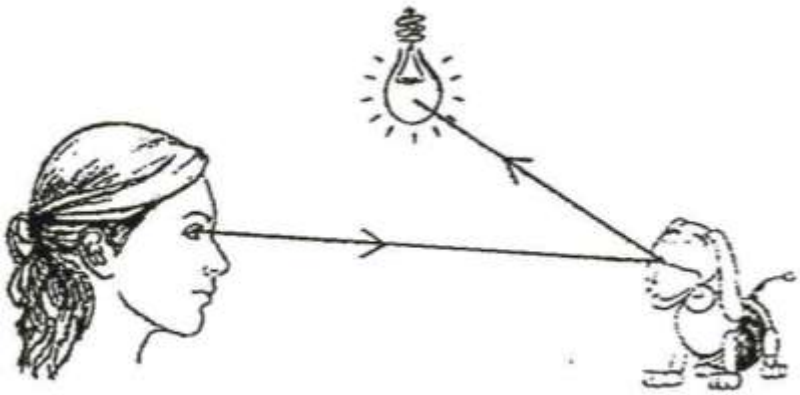
direction of light ⟶

---

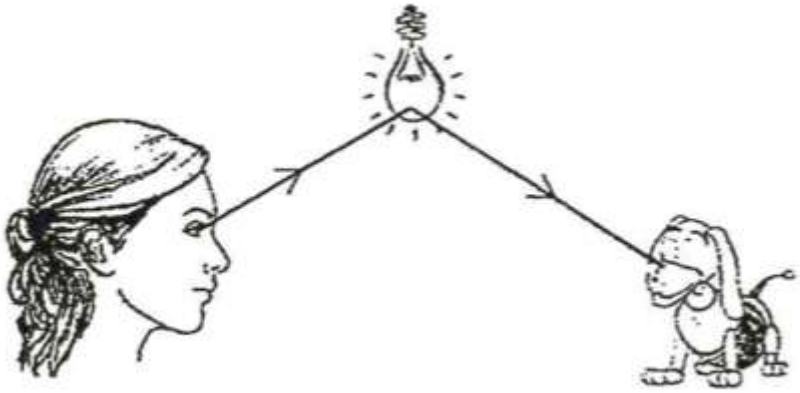
A)



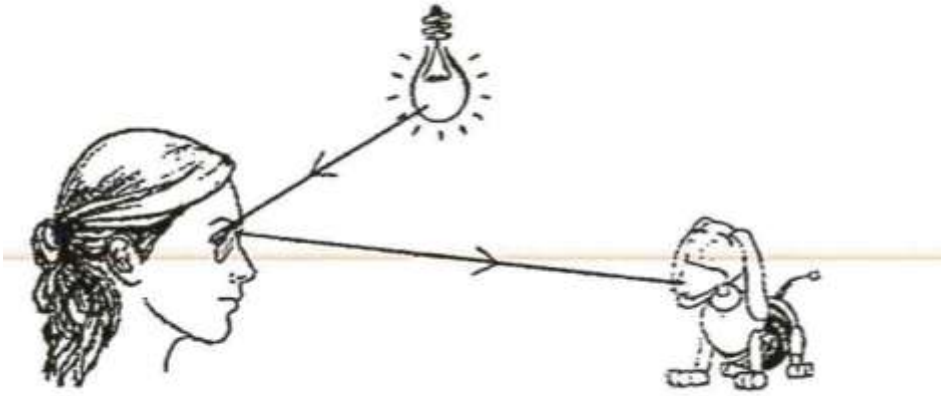
B)



C)



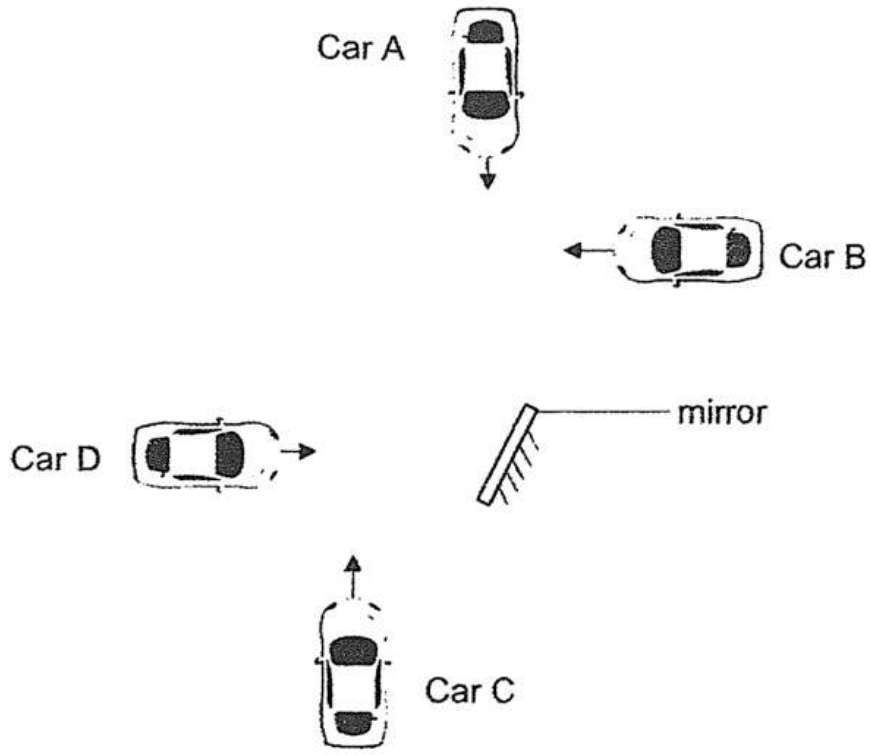
D)



## Question 21 of 52

Primary 4 Science (Term 2) 2 pts

The diagram below shows four cars A, B, C and D. They are travelling in the directions shown by the arrows.




Which two drivers can see each other in the mirror?

- **A)** A and C
- **B)** A and D
- **C)** B and C
- **D)** B and D

## Question 22 of 52

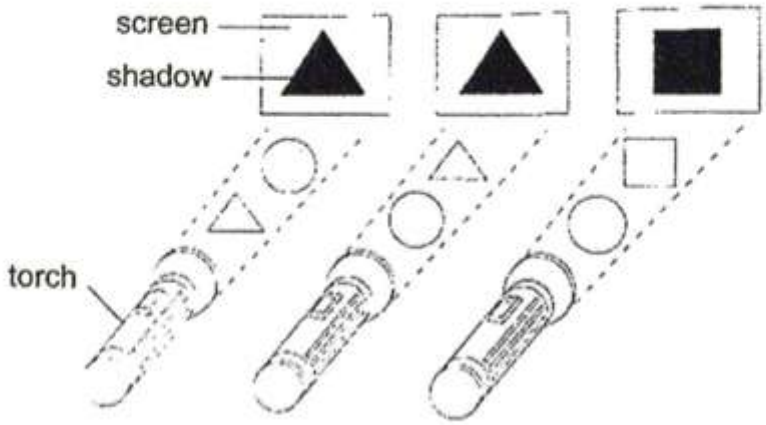
Primary 4 Science (Term 2) 2 pts

Which of the following do not give out light but can be seen because they reflect light?

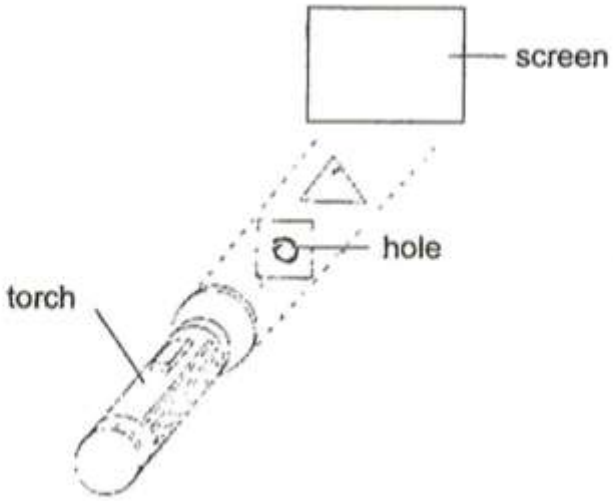
- **A)** sun, star, moon
- **B)** earth, man, tree
- **C)** lightning, candle, oil lamp
- **D)** firefly, fireworks campfire

Show downloads

The diagram below shows the shapes of the shadows produced when two ed between a screen and a torch. The objects of the objects allows most of the light to pass through.




A hole was made in the centre of the square object and it was then placed in front of the screen together with the triangular object, as shown below.




Which of the following shows the shadow produced on the screen?

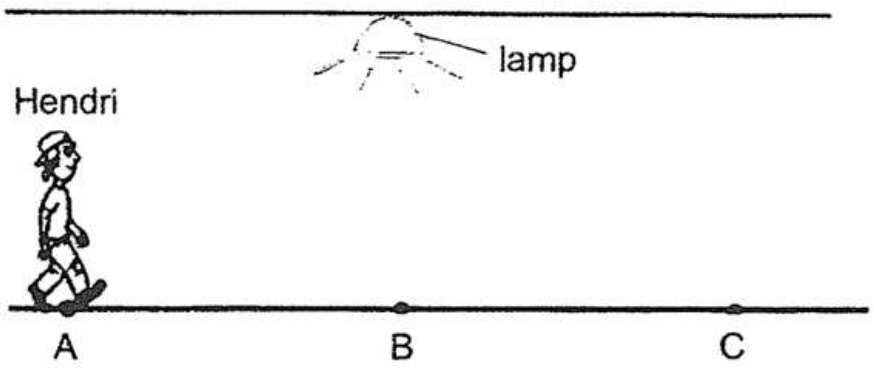
A)

B)

C)

D) 

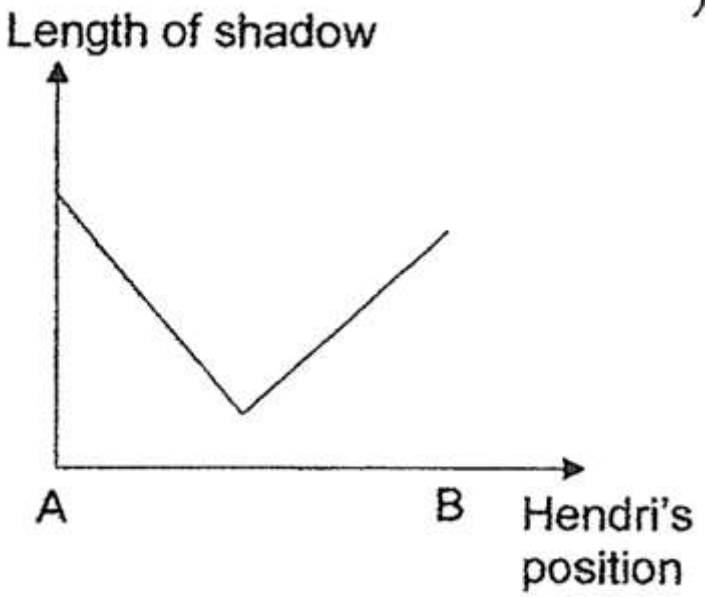
Hendri walked in a straight line and at the same speed from A to C as shown below. He was directly under the lamp at B. The distance between A and B is the same as the distance between B and C.



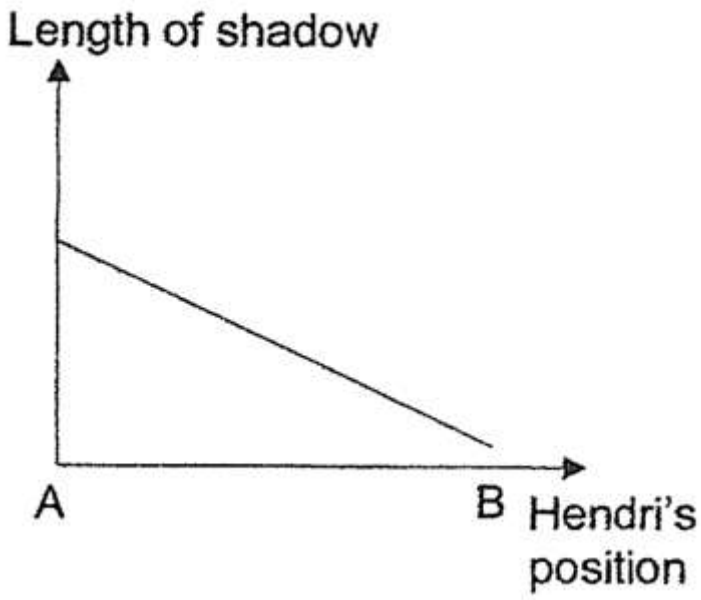

Which one of the following graphs correctly shows how the length of Hendri's shadow on the ground changed during his walk from A to B?

---

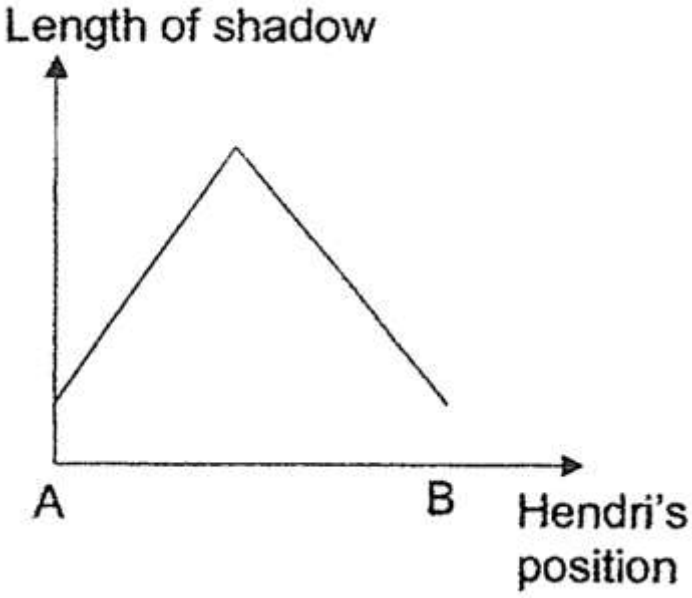
A)



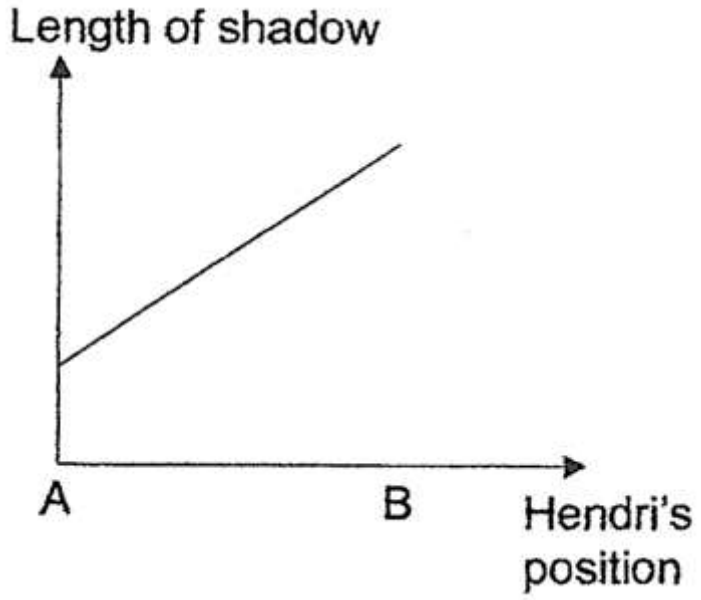

B)


Length of shadow
A
B
Hendri's position

C)


Length of shadow
A
B
Hendri's position

D)

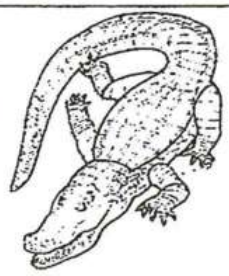
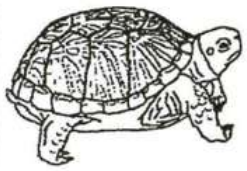
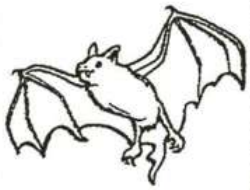
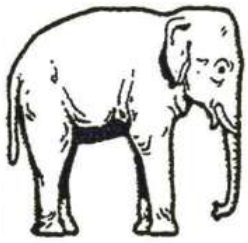

Length of shadow
A
B
Hendri's position

## Question 25 of 52

Primary 4 Science (Term 2) 0.5 pts

**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 table below shows how some animals are classified.

| P | | Q | |
|---|---|---|---|
|  |  |  |  |
| crocodile | turtle | bat | elephant |

(a) Which group of living things do animals P and Q belong to? [1]

P - _____

## Question 26 of 52

Primary 4 Science (Term 2) 0.5 pts

Q: _____

## Question 27 of 52

Primary 4 Science (Term 2) 0 pts

State one difference in the movement of a crocodile and a bat.

## Question 28 of 52

Primary 4 Science (Term 2) 0 pts

Different materials are used to make the lamp cover and the stand of the scooter as shown below.


Name the material and the property that makes it suitable for making the part of the object indicated above. [2]

| | Name of material | Property |
|---|---|---|
| lamp cover | | |
| stand | | |

## Question 29 of 52

Primary 4 Science (Term 2) 1 pt

The table below shows the amount of undigested food in each part of the digestive system.

| Part of digestive system | mouth | gullet | stomach | small intestine | large intestine |
|---|---|---|---|---|---|
| Amount of undigested food (g) | 100 | 100 | 60 | 10 | Y |

(a) What is the amount of undigested food in Y? [1]

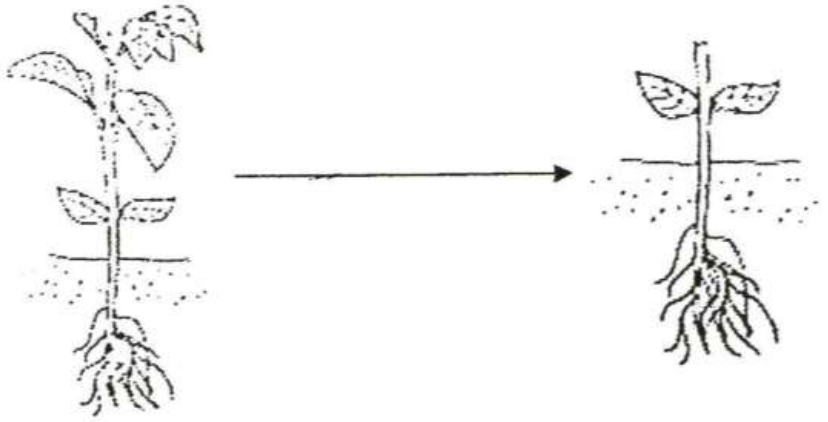
**Question 30 of 52** Primary 4 Science (Term 2) 0 pts

What happens to the food the has been digested?

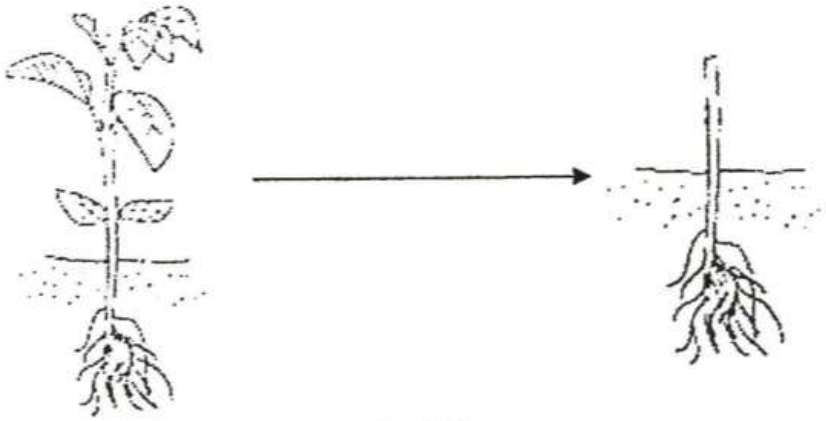
**Question 31 of 52** Primary 4 Science (Term 2) 0 pts

Why does the amount of undigested food remain the same at the gullet?

Some parts of plants A and B were cut off as shown below.



plant A



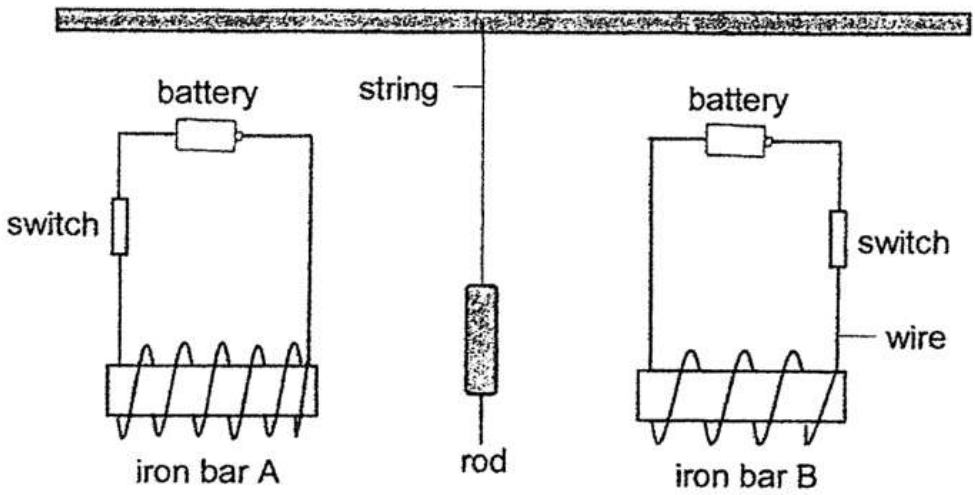
plant B

Which plant A or B would survive longer? Explain your answer.

## Question 33 of 52

Primary 4 Science (Term 2) 0 pts

Harun placed a rod between two iron bars A and B as shown below. When the switches were closed, the rod moved towards iron bar A.




(a) Explain why the rod moved towards iron bar A when the switches were closed. [1]

## Question 34 of 52

Primary 4 Science (Term 2) 1 pt

State the material that the rod can be made of in order for it to be attracted to the iron bars.

## Question 35 of 52

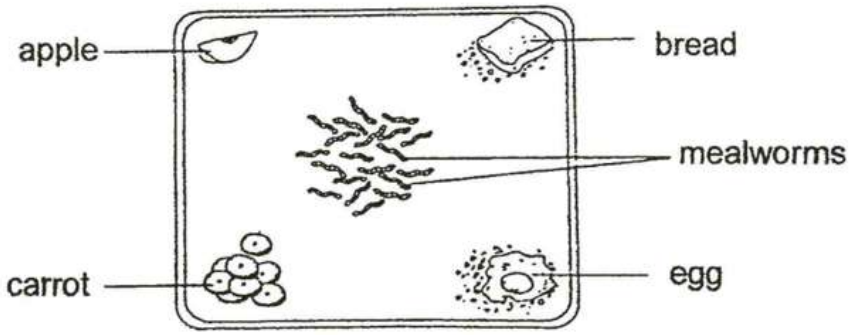
Primary 4 Science (Term 2) 0 pts

What could be done for the rod to move towards iron bar B when the switches were closed?

## Question 36 of 52

Primary 4 Science (Term 2) 1 pt

Doris placed 40 mealworms in the centre of a tray as shown in the diagram below. An equal amount of different types of food was placed at each corner of the tray.




After a while, the number of mealworms at each corner was counted. The results were recorded as shown below.

| | apple | bread | carrot | egg |
|---|---|---|---|---|
| Number of mealworms | 10 | 24 | 4 | 2 |

(a) What variable was changed in this experiment? [1]

## Question 37 of 52

Primary 4 Science (Term 2) 0 pts

Which food is most suitable for them to continue their life cycle? Give a reason to support your answer.

## Question 38 of 52

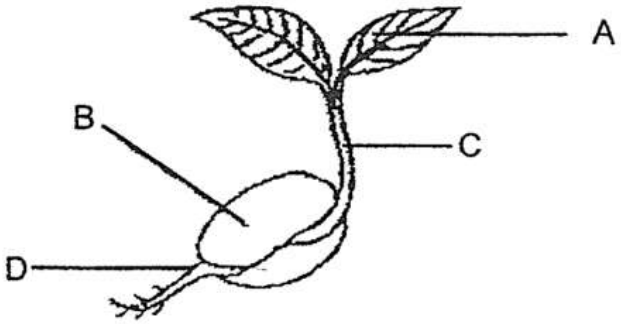
Primary 4 Science (Term 2) 0 pts

After some time, Doris noticed that only a few mealworms were still moving. What could have happened to the rest?

## Question 39 of 52

Primary 4 Science (Term 2) 1 pt

The diagram below shows a young plant.




(a) Which part A, B, C or D represents the seed leaf? [1]

- **A)** A
- **B)** B
- **C)** C
- **D)** D

## Question 40 of 52

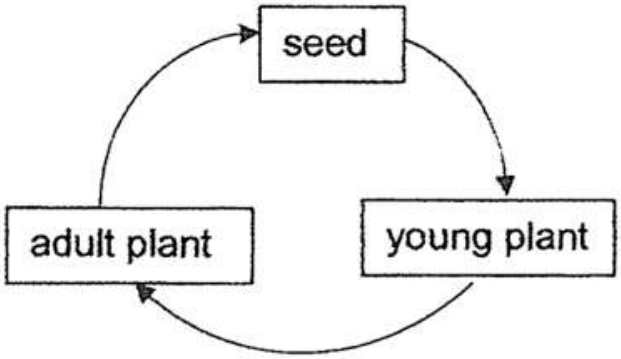
Primary 4 Science (Term 2) 0 pts

State one function of a seed leaf

**Question 41 of 52** Primary 4 Science (Term 2) 0 pts

What stage of its cycle is plant A in? Give a reason for your answer.

plant A




**Question 42 of 52** Primary 4 Science (Term 2) 0 pts

Rosy fits a balloon over the mouth of a plastic bottle. She blows into the balloon, but is not able to inflate the balloon to fill the bottle up fully.


(a) Explain why she cannot inflate the balloon to fill the bottle up fully.

## Question 43 of 52

Primary 4 Science (Term 2) 0 pts

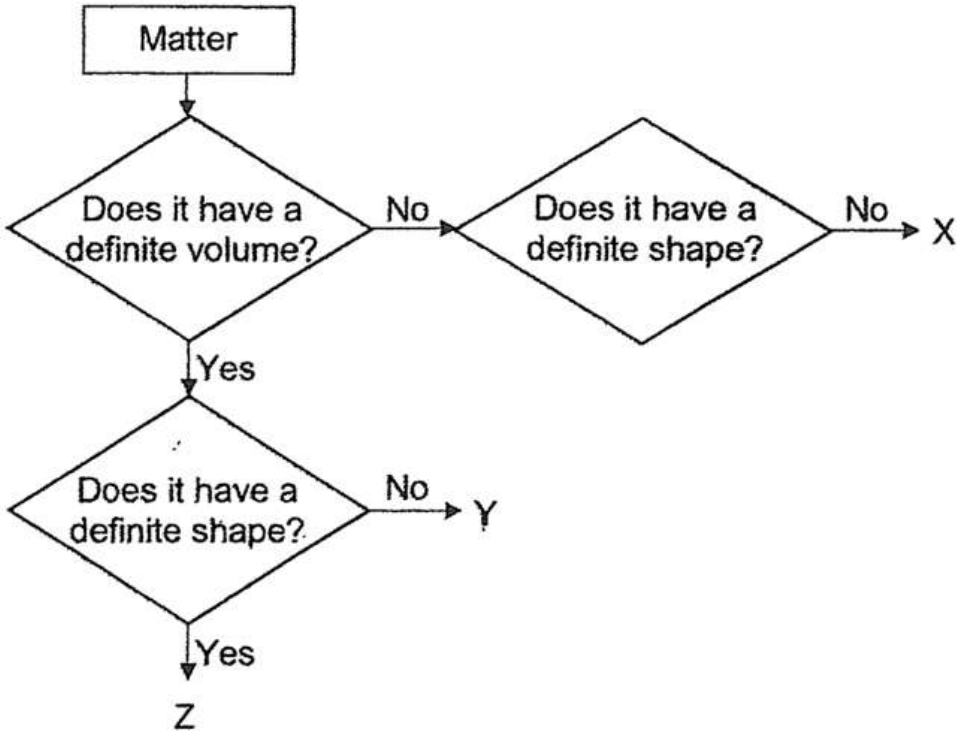
Using the same bottle and balloon, suggest what she can do to inflate the balloon to fill the bottle up fully.

## Question 44 of 52

Primary 4 Science (Term 2) 1 pt

Match the options below:

Rosy wanted to classify a list of items based on the flow chart as shown below.




(c) Classify the following items accordingly.

| | | | |
|---|---|---|---|
| 1. [ ] | X | A. | oxygen |
| 2. [ ] | Y | B. | ice cube |
| 3. [ ] | Z | C. | rain |

## Question 45 of 52

Primary 4 Science (Term 2) 0 pts

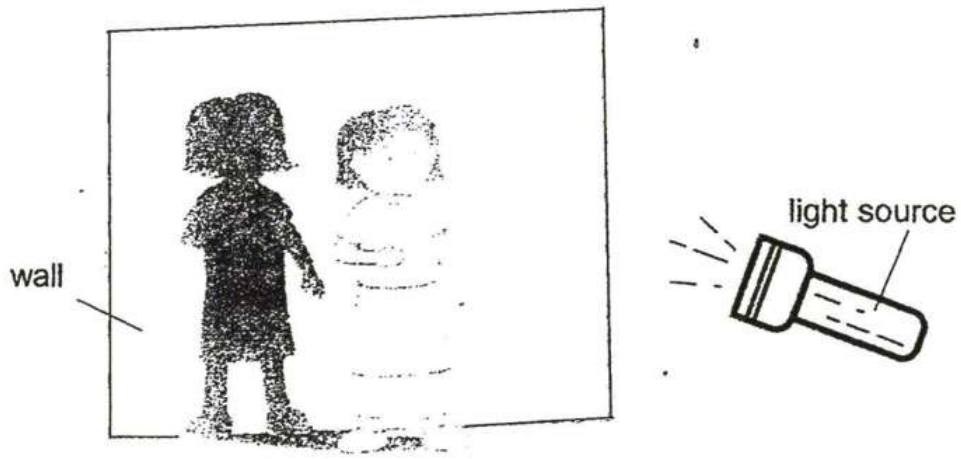
Which one of the following is not a matter? Why?

Jelly, Shadow, Clouds, Plasticine

## Question 46 of 52

Primary 4 Science (Term 2) 0 pts

Look at the diagram below.




(a) How is the girl's shadow formed on the wall? [1]

## Question 47 of 52

Primary 4 Science (Term 2) 1 pt

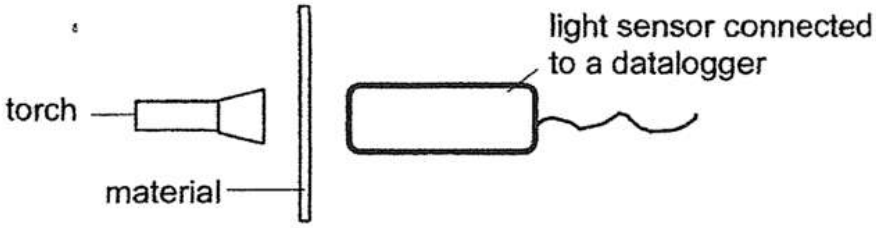
What can the girl do to form to shadows on the wall instead of one?

- **A)** move nearer to the light source
- **B)** move further away from the light source
- **C)** stand at the side of the wall instead of the centre
- **D)** use two light sources shining from different directions

## Question 48 of 52

Primary 4 Science (Term 2) 0 pts

Devi wants to find out how much light can pass through the materials P, Q and R. Each material was placed in between a torch and a light sensor connected to a datalogger.




She recorded the results as shown below.

| Materials | Amount of light (units) |
|---|---|
| P | 0 |
| Q | 35 |
| R | 154 |

(a) Based on the table above, what can Devi conclude about material Q? [1]

## Question 49 of 52

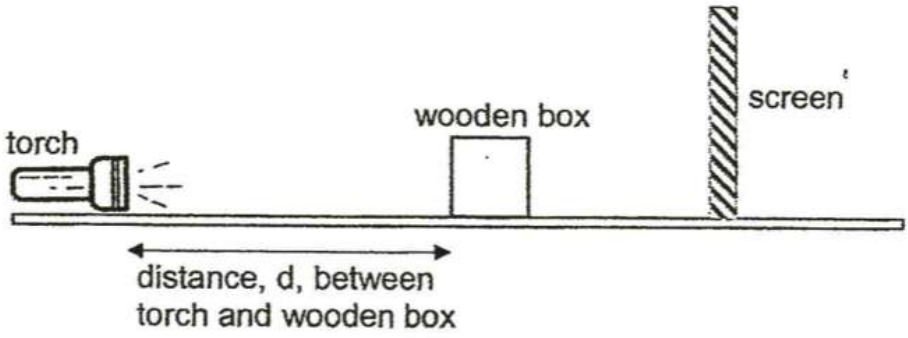
Primary 4 Science (Term 2) 0 pts

Which material P, Q or R should Devi choose to make a curtain to have the darker bedroom? Give a reason for your answer

## Question 50 of 52

Primary 4 Science (Term 2) 1 pt

Fiona used a torch to shine on a wooden box as shown below. A shadow of the box was formed on the screen.




(a) Fiona measured the height of the shadow formed on the screen as she moved the torch towards the wooden box. She recorded the results in the table as shown below.

| distance, d, between torch and wooden box (cm) | Height, H, of the shadow formed on the screen (cm) |
|---|---|
| 15 | 8 |
| 12 | 10 |
| 9 | 12 |
| 6 | H |

State the height, H, of the shadow formed when the distance, d, between the torch and the wooden box is 6 cm. [1]

H : _____ cm

---

## Question 51 of 52

Primary 4 Science (Term 2) 0 pts

Without moving the torch, suggest two ways that Fiona could do to make the height of the shadow formed on the screen to be less than 8 cm

---

What is the relationship between the distance of the torch and the wooden box and the height of the shadow formed on the screen?