

Test: Primary 3 - Term 4 (SA2) Science (Ai Tong)

Points: 32 points

Name: _____

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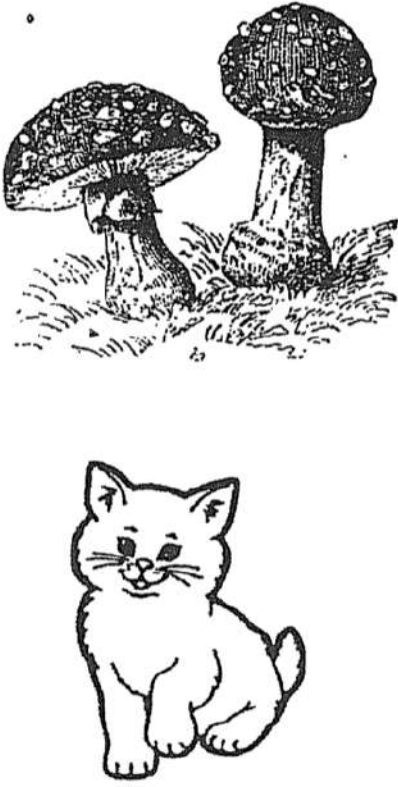
Signature: _____

Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

Study the classification table below.

Living Things	
A	B
	

Which of the following are suitable headers for Group A and Group B?

	Group A	Group B
(1)	Can make food	Cannot make food
(2)	Reproduce from seeds	Reproduce from spores
(3)	Do not need food to survive	Need food to survive
(4)	Cannot move from place to place on its own	Can move from place to place on its own

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

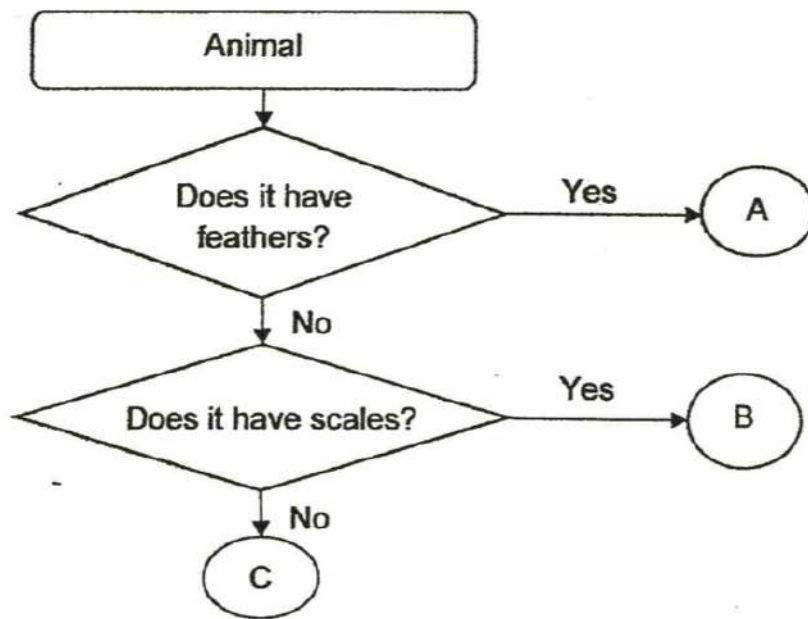
The picture below shows a dolphin which is a mammal.



Which of the following is **not** a reason why a dolphin is a mammal?

-
- A) It breathes through lungs.
 - B) It can swim and live in water.
 - C) It has an outer covering of hair.
 - D) It feeds on its mother's milk when young.

The flowchart below classifies animals into three groups, A, B and C.

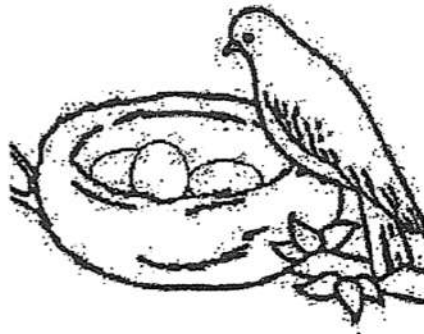


Based only on the flowchart, which of the following are possible animal groups for A, B and C?

	A	B	C
(1)	insects	birds	reptiles
(2)	birds	amphibians	fish
(3)	insects	reptiles	amphibians
(4)	birds	fish	amphibians

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

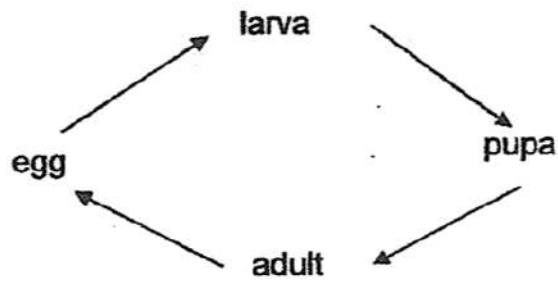
Study the pictures below.



Which of the following characteristics of living things is shown in both the pictures above?

-
- A) All living things lay eggs.
 - B) All living things can reproduce.
 - C) All living things can respond to changes.
 - D) All living things need air, food and water to survive.

The diagram below shows the life cycle of a living thing.

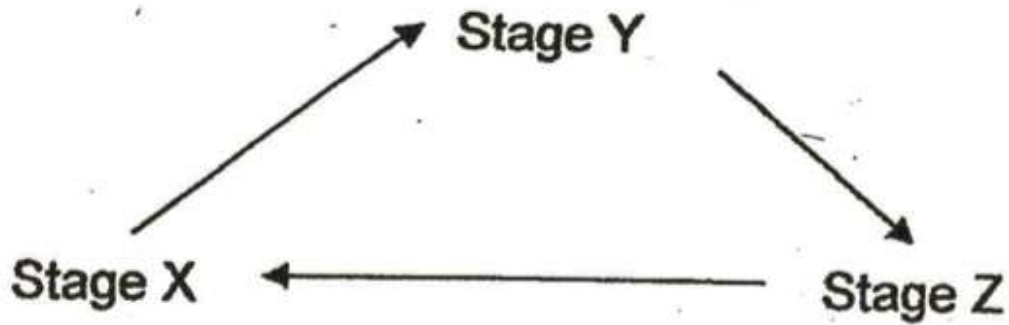


Which of the following living thing(s) has/have the same life cycle as that shown above?

- A chicken
- B cockroach
- C grasshopper
- D mealworm beetle

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

The life cycle of a flowering plant goes through stages X, Y and Z as shown in the diagram below.



If stage X is the stage of the plant's life cycle during which it has no roots and shoots yet, then what is the name of stage Z of the life cycle?

-
- A) egg
 - B) seed
 - C) adult plant
 - D) young plant

The diagram shows a tree with Part Q labelled.



The function of part Q is to _____.

- A) take in water
- B) make food
- C) keep the plant upright
- D) hold the plant firmly to the ground

Jason had two similar plants, P and Q as shown in the diagram below. He cut off all the roots of plant Q but not the roots of plant P. Then, he planted both plants into similar pots of garden soil. Both pots of plants were placed side by side in the open.



plant P
roots were not
cut off



plant Q
roots were all
cut off

After a thunderstorm that night, one of the two plants fell out of the pot. Which of the following correctly identifies the plant that had fallen out and the reason why?

	The plant that fell out of the pot	Reason for the plant falling out of the pot
(1)	P	The roots of the plant took in too much water.
(2)	P	The roots of the plant were unable to hold the plant firmly to the soil.
(3)	Q	The plant had no roots to take in enough water.
(4)	Q	The plant had no roots to hold the plant firmly to the soil.

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

Question 9 of 34

Primary 3 Science (Term 4) 2 pts

Danny wanted to find out if the number of hours a seedling gets light daily affects the number of days the seedling takes to grow taller by 10cm. He prepared three similar seedlings and conducted an experiment with them. Which of the following is the correct measured variable for this experiment?

- A) The number of hours the seedling gets light daily
- B) The amount of water given to each seedling daily
- C) The height of the seedling at the start of the experiment
- D) The number of days the seedling takes to grow taller by 10cm

Question 10 of 34

Primary 3 Science (Term 4) 2 pts

If object X cannot be bent, which of the following correctly describes its property?

- A) Object X is strong
- B) Object X is waterproof
- C) Object X is not flexible
- D) Object X sinks in water

Question 11 of 34

Primary 3 Science (Term 4) 2 pts

James wanted to find out which type of paper bag, A, B, C or D would be the strongest. He placed apples of the same size into each paper bag until the paper bag broke. The table below records his observations.

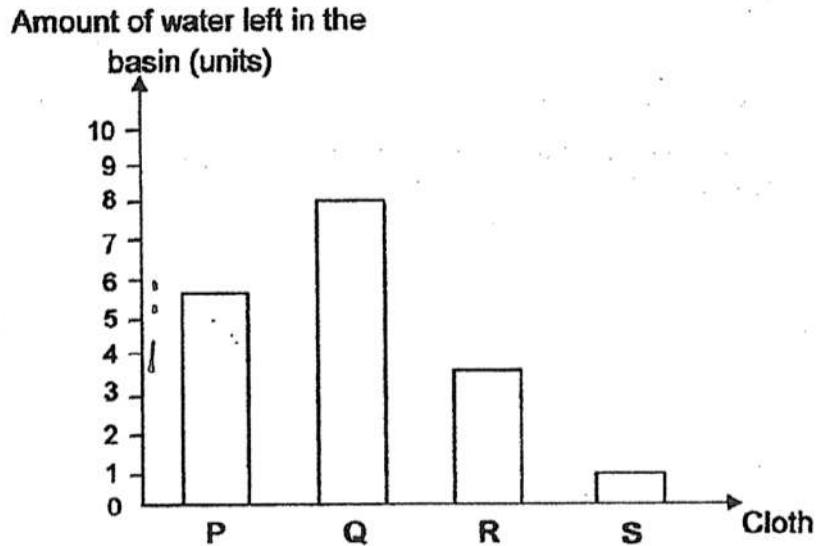
Paper bag	A	B	C	D
Number of apples that can be put into each bag before it broke	10	6	3	12

Which one of the following statements is correct?

- A) Paper bag C is the strongest
- B) Paper bag A is stronger than paper bag D
- C) Paper bag B is stronger than paper bag C
- D) Paper bag D will not be able to hold 8 apples without breaking

Four different pieces of dry cloth, P, Q, R and S, of the same size and thickness were placed in separate basins containing the same amount of water. Each cloth was quickly taken out of the water after ten seconds. The water that was left in each basin for each cloth was measured.

The graph below shows the amount of water left in each basin.



Based on the graph, which piece of cloth absorbed the most amount of water?

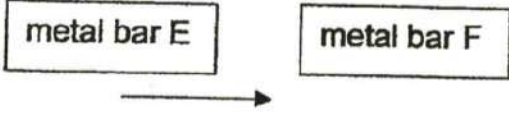
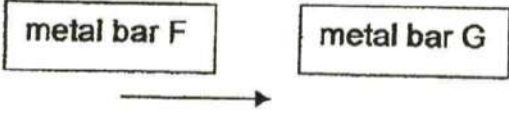
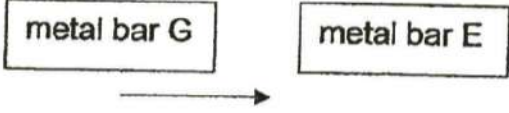
- A) P
- B) Q
- C) R
- D) S

Which of the following is/are magnetic?

- A an iron nail
- B a steel ruler
- C a bar magnet
- D a piece of aluminium foil

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

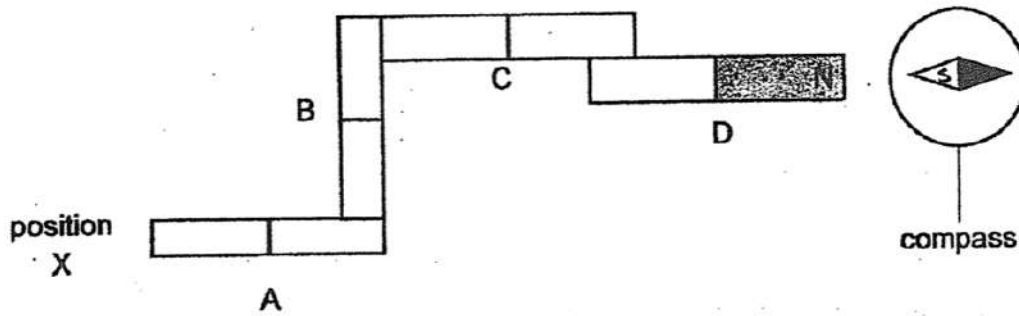
Simon had three metal bars, E, F and G. He carried out the following actions and observed what happened.

Action	Observation
<p>Simon brought one end of metal bar E close to one end of metal bar F.</p>  <p>metal bar E metal bar F</p>	Metal bar F did not move at all.
<p>Simon brought one end of metal bar F close to one end of metal bar G.</p>  <p>metal bar F metal bar G</p>	Metal bar G moved away from metal bar F.
<p>Simon brought one end of metal bar G close to one end of metal bar E.</p>  <p>metal bar G metal bar E</p>	Metal bar E did not move at all.

Which metal bar(s) is/are definitely a magnet(s)?

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

The diagram below shows four magnets, A, B, C and D, and a compass.



The north pole of magnet D is shown in the diagram. If another compass is placed at position X, which of the following correctly shows what this second compass would display?

- (1)
- (2)
- (3)
- (4)

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

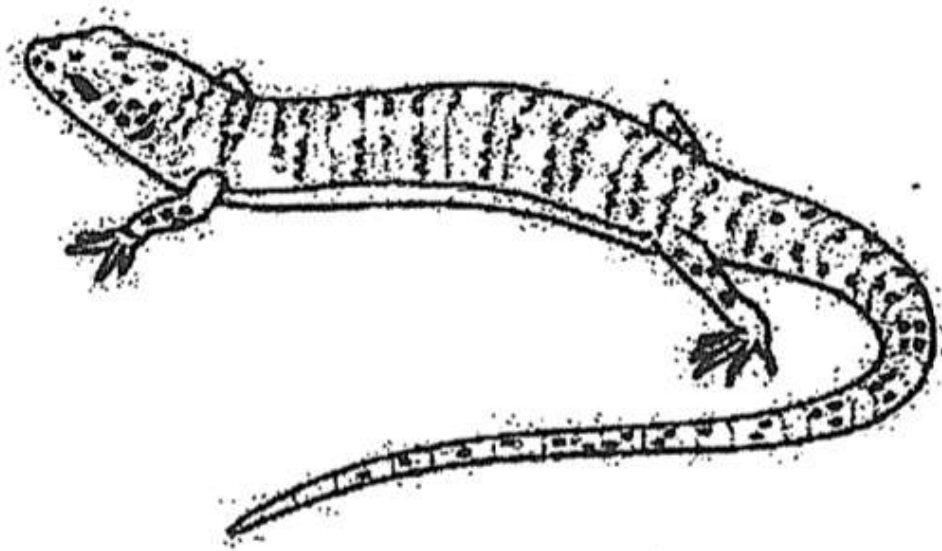
Question 16 of 34

Primary 3 Science (Term 4) 0 pts

Section B: (20 marks)**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 animal X. Animal X is a reptile



What outer covering does animal X have?

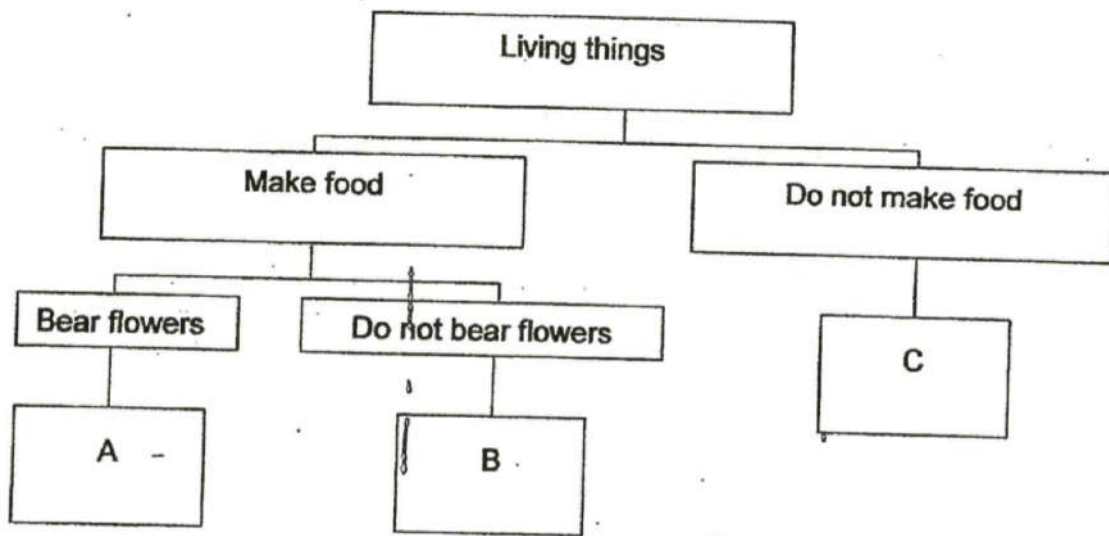
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Primary 3 Science (Term 4) 0 pts

Animal X was on a stone pavement. It noticed a human walking towards it and immediately crawled away to hide in the bushes.

Which characteristic of living things did animal X show?

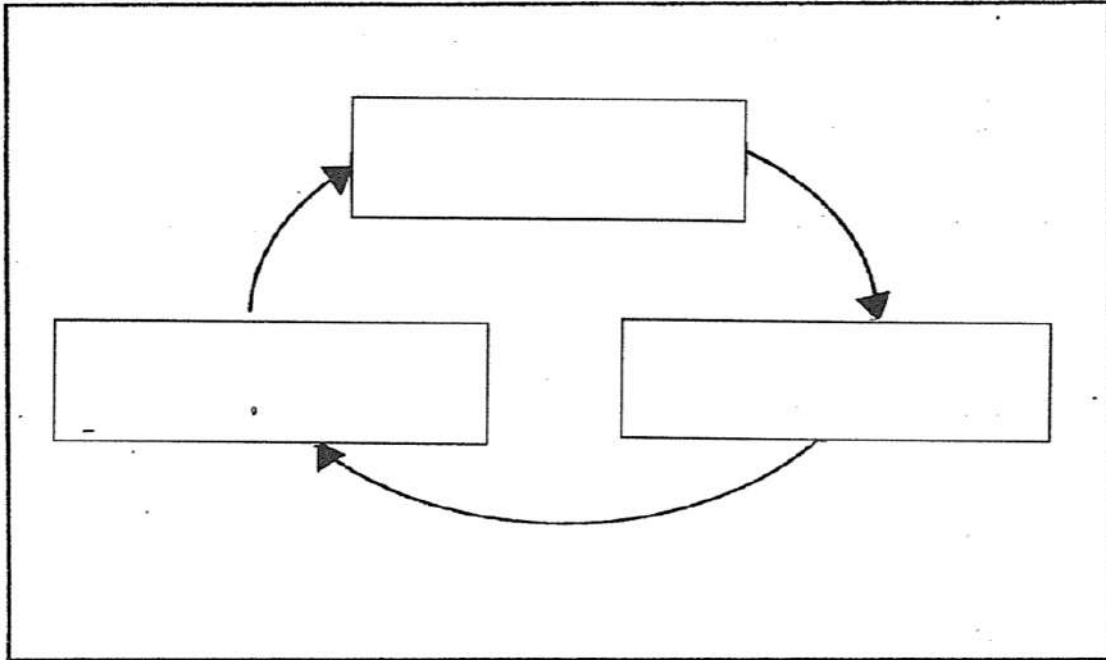
The table below shows a classification chart.



Based on the chart above, state a difference between living things A and B.

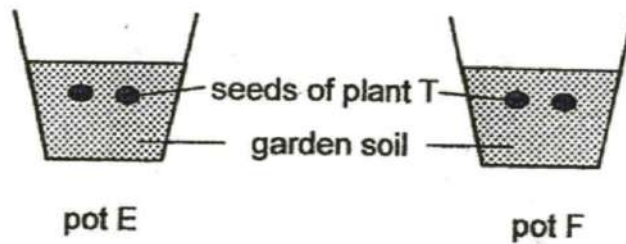
Based on the chart above, which of the living things A,B and/or C, is/are plants? Explain your answer.

18. (a) Animal Z is a mammal. Write the names of the stages of animal Z's life cycle in the boxes provided in the diagram below. [1]



Another animal, animal Y, has a larva and pupa stage in its life cycle. State one difference between animal Y in its larva stage and animal Y in its pupa stage.

Jonathan carried out an experiment using two similar set-ups as shown in the diagram below. He placed both pots in a dark cupboard.



He watered the seeds in pot E daily but did not water the seeds in pot F at all. After a week, the seeds in pot E germinated but the seeds in pot F did not.

- (a) Based on the information above, complete the following sentence by circling the correct answer in the brackets. [1]

Seeds (need / do not need) light to germinate and seeds

- A) do not need
 B) need

(need / do not need) water to germinate.

- A) do not need
 B) need

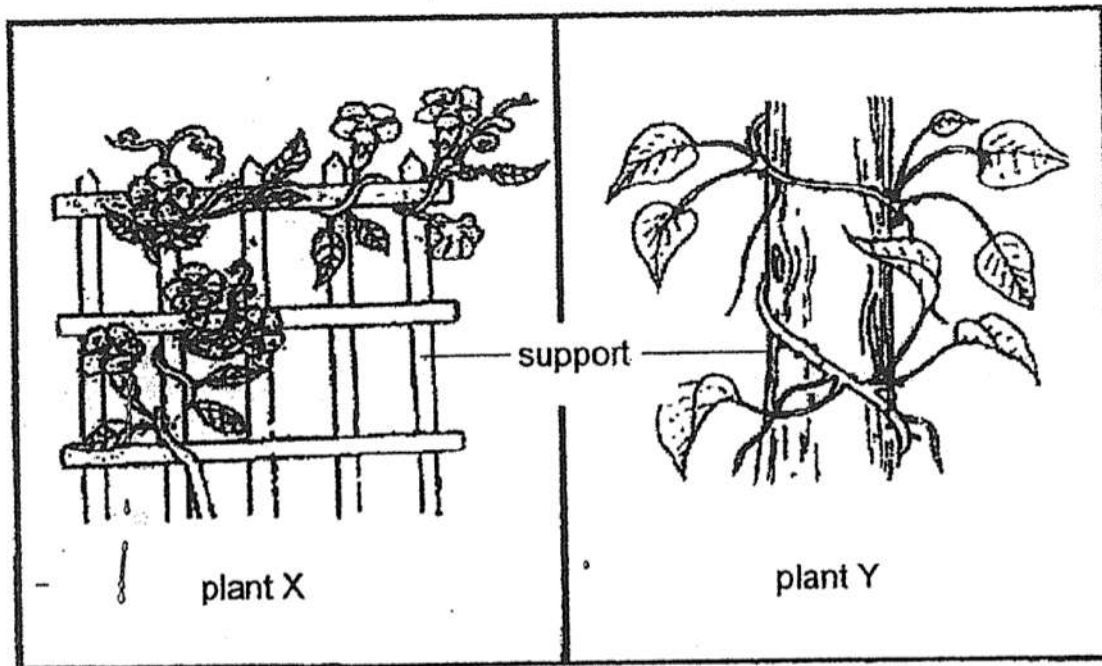
Jonathan then moved pot E from the cupboard to the garden and continued to water the seedlings daily. He recorded the number of days the seedlings took to reach a height of 10cm.

He also repeated the whole experiment using seeds from plant W. The table below shows the data he collected.

Type of seed	Number of days the seedlings took to reach a height of 10cm after the seeds germinated.
Seeds from plant T	15 days
Seeds from plant W	20 days

- (b) Based on the data above, which plant, T or W, had seedlings that grew at a faster speed? Explain your answer. [1]
-

The diagrams below show two different types of plants, X and Y.

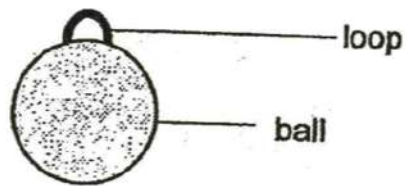


Both plants X and Y grow on supports. What does this show about both their stems?

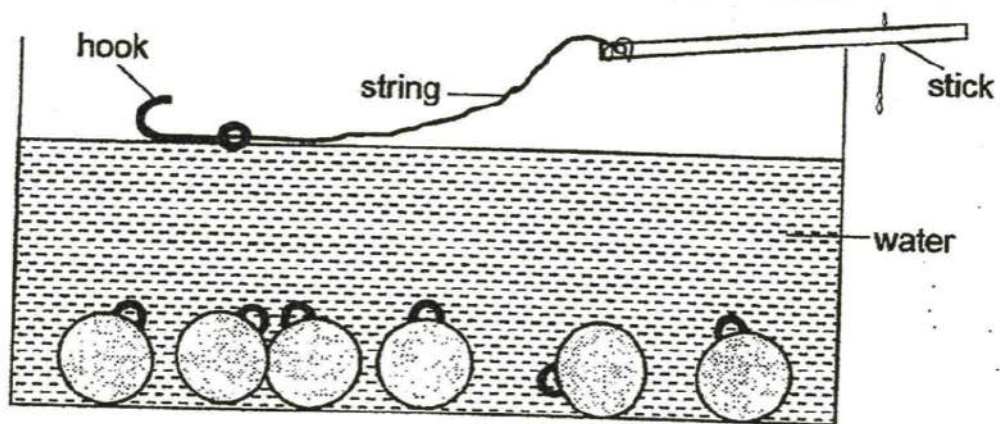
Without supports, plant X and Y can still grow but they can grow healthier if there are supports. Explain how growing on supports help the leaves of plants X and Y.

Jack wanted to find out if providing plant Y with mineral Z would help it to grow even healthier. He obtained two similar pots of soil, each with a plant Y growing on support. What should the changed variable of Jack's experiment be?

Ashley designed a fishing game for young children. She bought many coloured balls that had a loop as shown in the diagram below.



She placed all the coloured balls into a tank of water. She then tied a string to one end of a stick and tied a hook to the end of the string. The young children will need to use the hook to fish out the coloured balls. Unfortunately, when Ashley placed the hook into the water, this was what she observed.



(a) What is the problem that Ashley faced with the hook?

[1]

Ashley knows that she needs to get a hook of a different material from the one she has. Suggest one material that the hook can be made of to solve her problem.

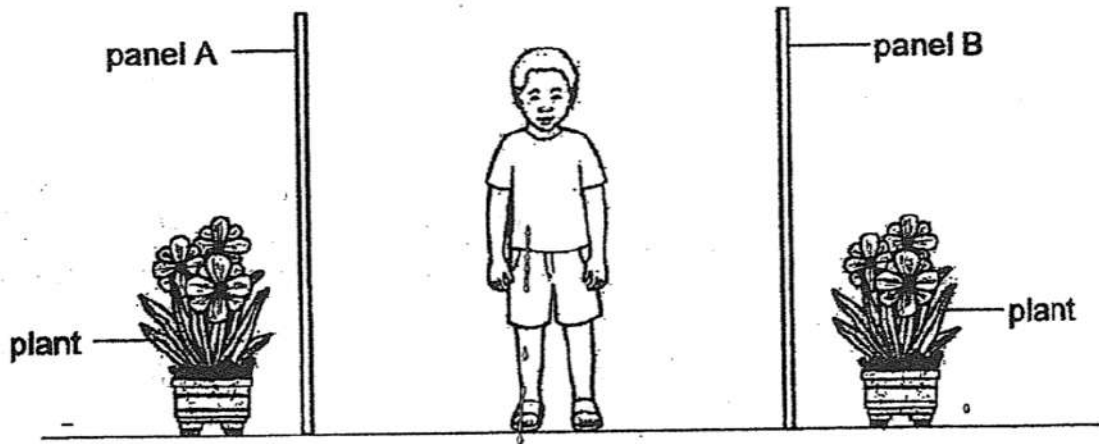
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Primary 3 Science (Term 4)

0 pts

Give one reason why the stick should not be made of glass. Explain your answer.

Kevin was standing between two panels, A and B, made of different materials. Two identical pots of plants were placed behind each panel as shown in the diagram below.



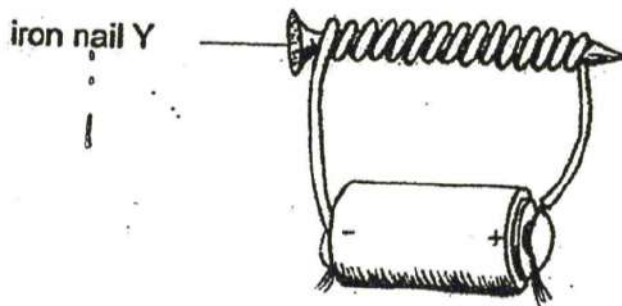
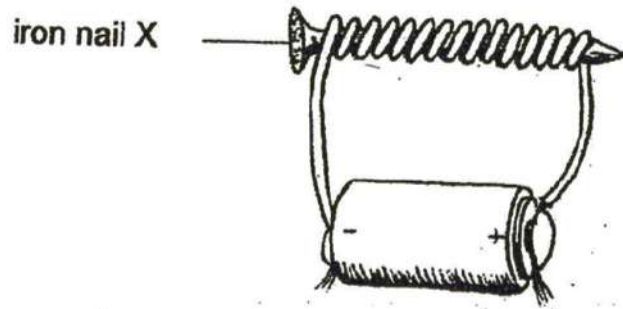
From where he was standing, Kevin could see the pot of plant behind panel A very clearly but could not see the pot of plant behind panel B at all.

What does the above information tell you about the transparency of the materials that panels A and B are made of? [2]

Panel A _____

Panel B _____

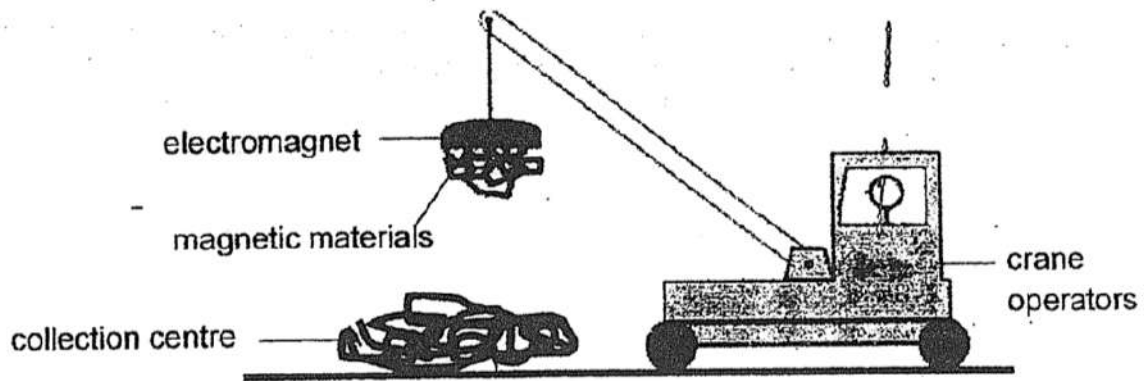
Derrick created two electromagnets using iron nail X and iron nail Y as shown in the diagram below.



- a) He wanted to find out which electromagnet was stronger. He dipped the sharp end of each iron nail into a box of iron pins one at a time. What will Derrick observe if iron nail X is the stronger electromagnet? [1]

Derrick wanted to make iron nail Y a stronger electromagnet than it is. Suggest one way he could change the electrical set-up for nail Y.

- (c) An electromagnet instead of a permanent magnet is often used in a scrapyards to separate magnetic materials from the non-magnetic ones. The crane operators carry the magnetic materials away from the scrapyards to a collection centre as shown in the diagram below.



Why is it better to use an electromagnet instead of a permanent magnet at the collection centre? [1]