

Test: Primary 4 - Term 4 Science (SCGS)

Points: 74 points

Name: _____

Score: _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

Only select one answer

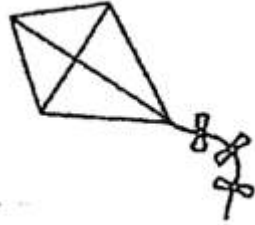
Can select multiple answers

Booklet A (28 x 2 marks)

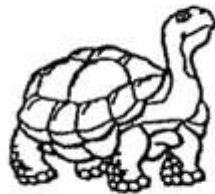
For each question from 1 to 28, four options are given. One of them is the correct answer.

Which one of the following is a living thing?

A)



B)



C)



D)



Question 2 of 63

Primary 4 Science (Term 4) 2 pts

Which one of the following is not a source of heat?

- A) The sun
- B) A lighted bulb
- C) A candle flame
- D) A woollen sweater

Question 3 of 63

Primary 4 Science (Term 4) 2 pts

Which one of the following properties is true for both air and a pen?

- A) They have definite volume
- B) They can be seen
- C) They take up space
- D) They have definite shapes

Which one of the animals shown below is not an insect?

A)



B)



C)



D)



A, B, C and D are the various stages in the life cycle of a mosquito.



A



B



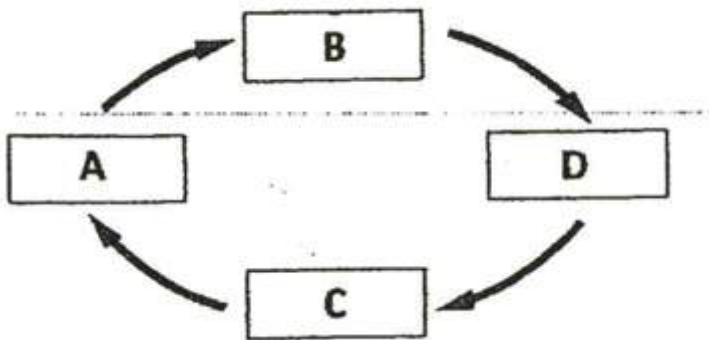
C



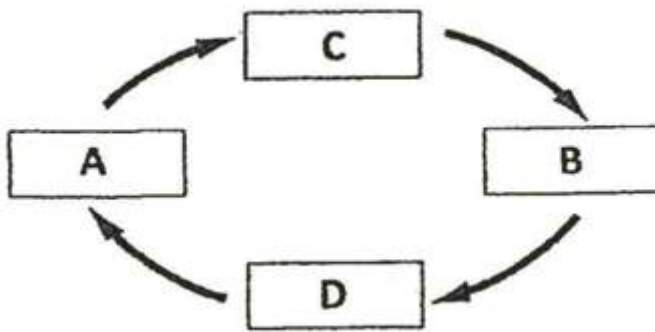
D

Which of the following correctly shows the life cycle of a mosquito?

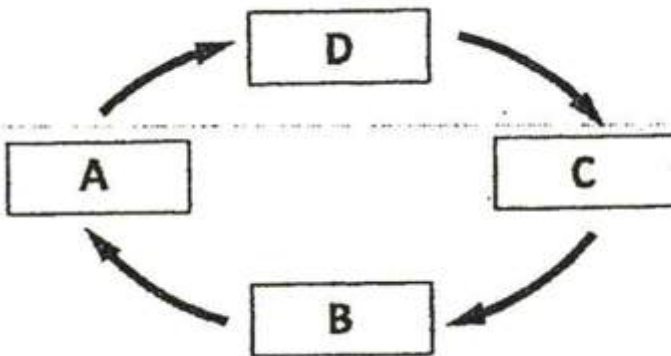
A)



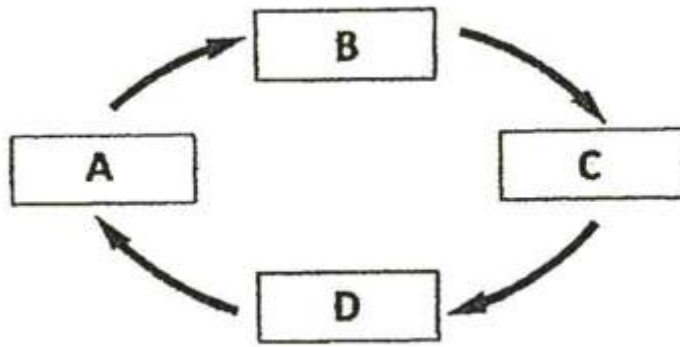
B)



C)



D)

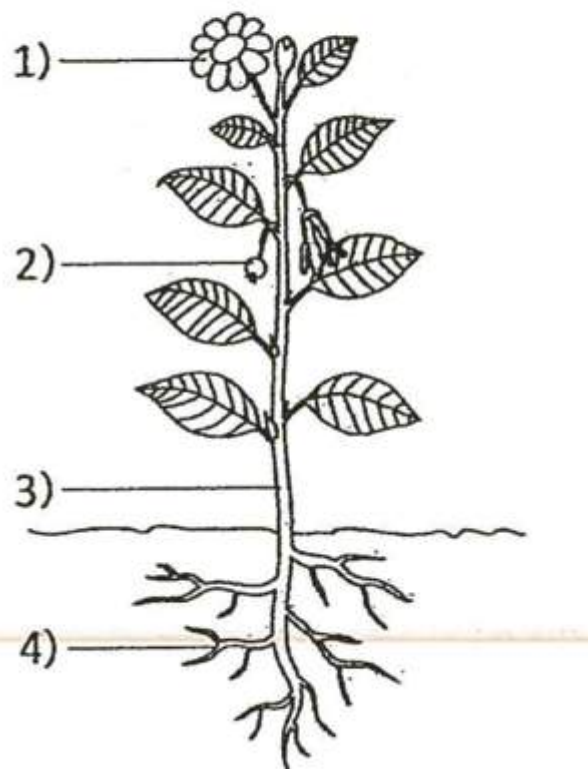


Question 6 of 63

Primary 4 Science (Term 4)

2 pts

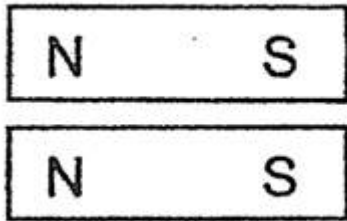
- The diagram shows a plant.
Which part, 1, 2, 3 or 4 is the stem?



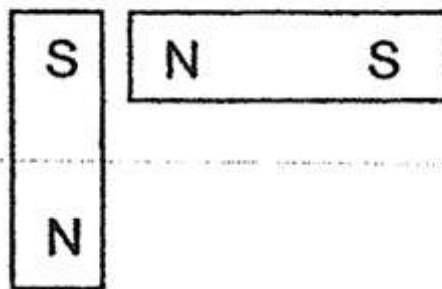
- A) 1
 B) 2
 C) 3
 D) 4

In which one of the following will the two magnets push each other away?

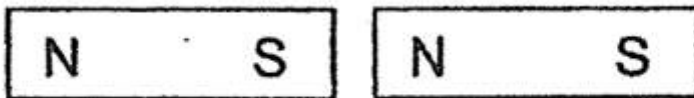
A)



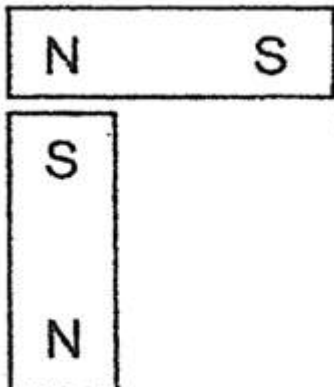
B)



C)



D)



Which one of the following is a source of light?

A)



A campfire

B)



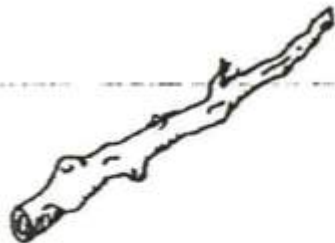
An apple

C)



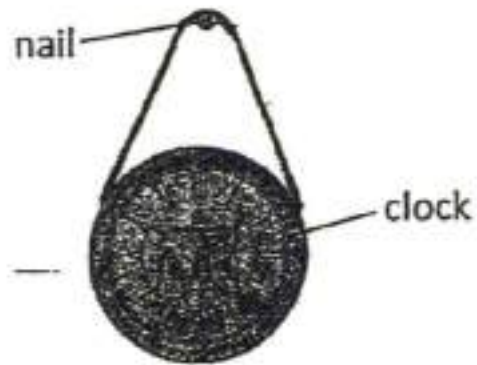
The moon

D)



A twig

The diagram shows a clock hanging on a wall on a nail.

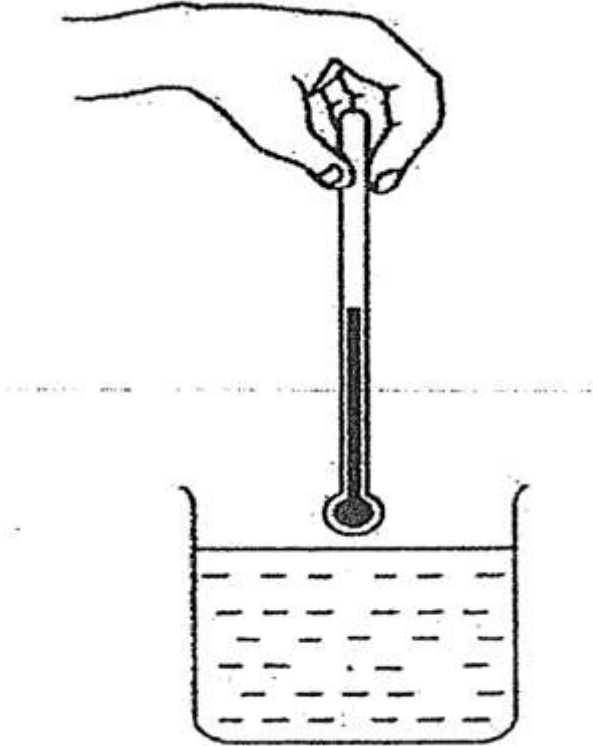


Iron is used to make nails because iron _____.

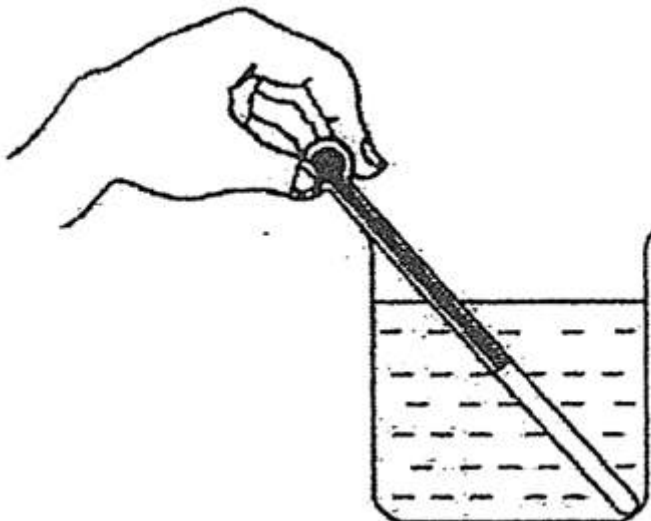
-
- A) is shint
 - B) is strong
 - C) sinks in water
 - D) conducts heat well

Alvin wants to measure the temperature of hot water in a beaker. Which one of the following diagrams shows the correct position of the thermometer when taking the temperature reading?

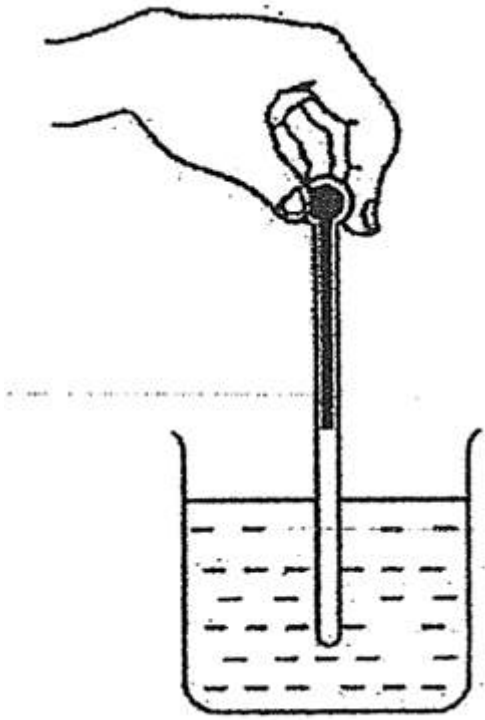
A)



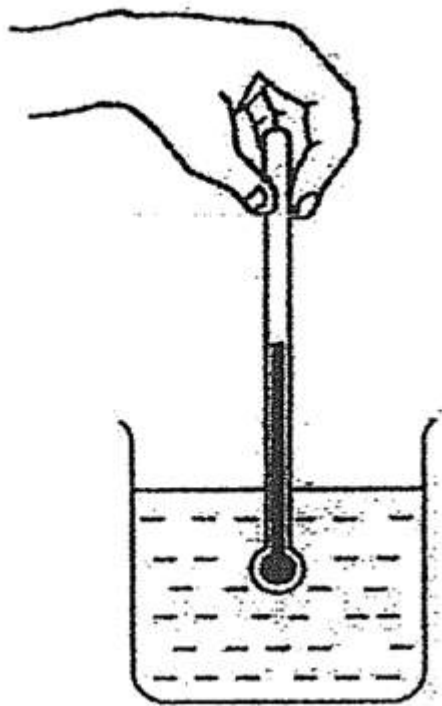
B)



C)



D)



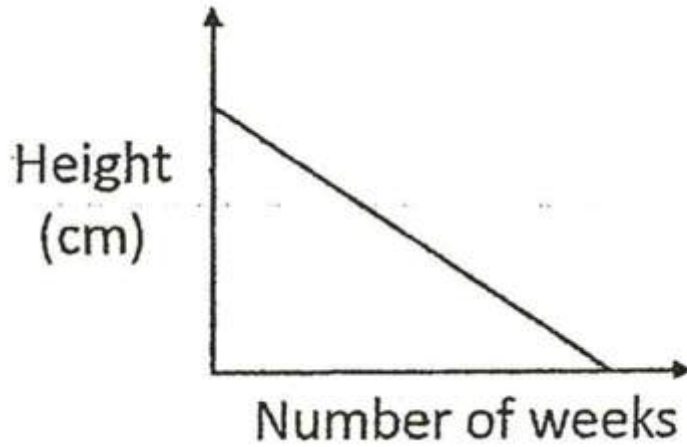
Which of the following systems work together so that the whole body can receive oxygen?

- A)** circulatory and digestive system
- B)** muscular and digestive system
- C)** circulatory and respiratory system
- D)** muscular and respiratory system

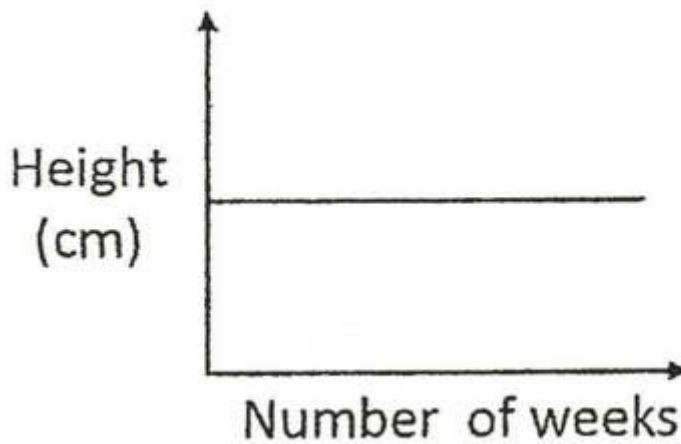
Which one of the following graphs shows the change in height as the seedling grows into an adult plant?



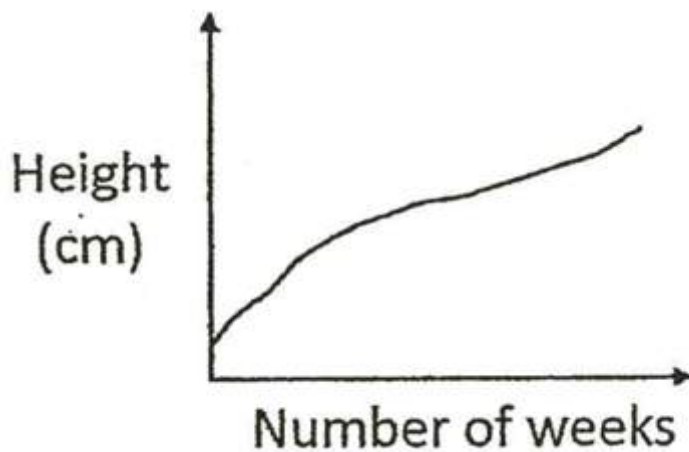
A)



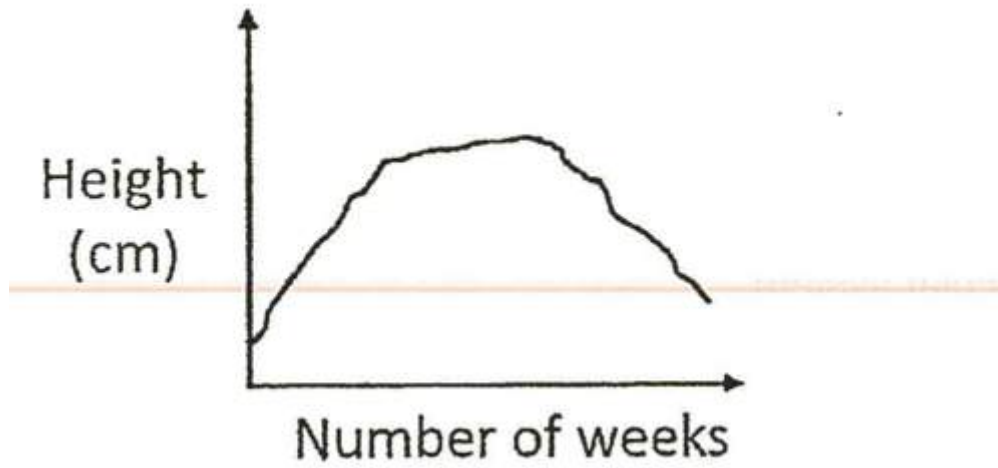
B)



C)



D)

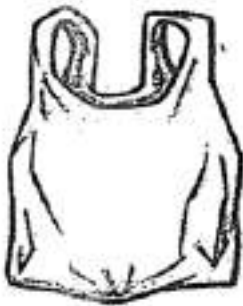


Question 13 of 63

Primary 4 Science (Term 4)

2 pts

What is/are the common property/properties of the objects shown below?



Grocery bag



Raincoat



Hair tie

- A: They are light.
B: They are hard.
C: They are flexible.

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

Wen Juan placed a light sensor in a **completely dark room**. She shone torch E at the light sensor and recorded the results in the table below. She then repeated the experiment with three torches, F, G and H.

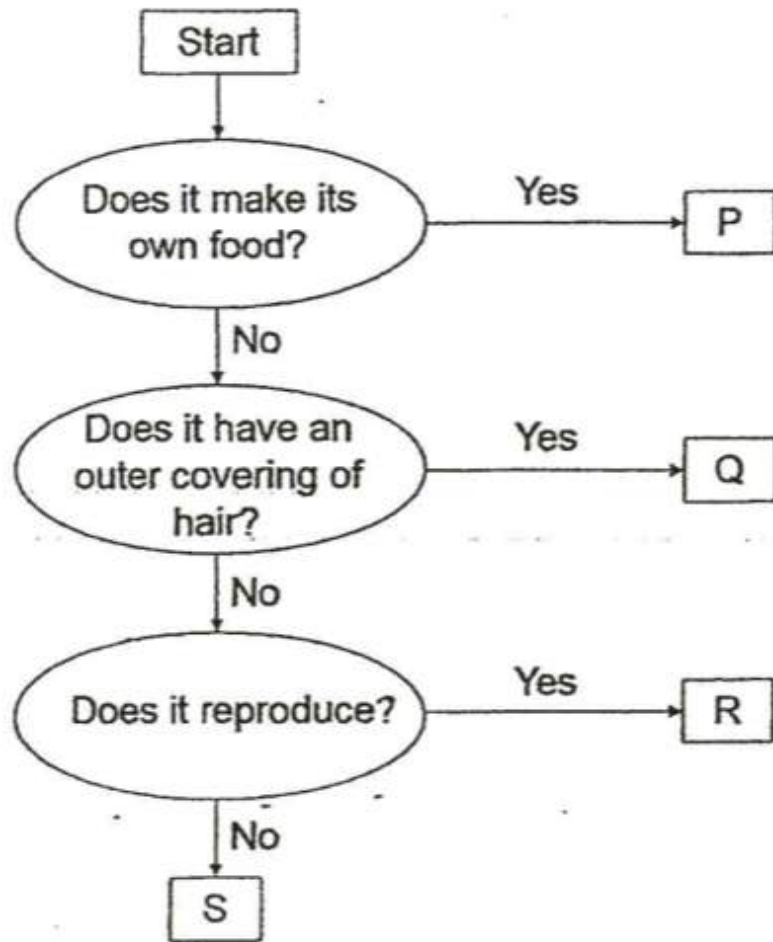
Torch	Intensity of light in room when the torch was switched off (Lux)	Intensity of light in room when torch was switched on (Lux)
E	0	60
F	0	45
G	0	20
H	0	45

Which one of the following statements correctly explains Wen Juan's observations?

- A: Torch E is bigger than Torch H.
- B: Torch E is brighter than Torch G.
- C: Torch F and Torch H are equally bright.

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

Study the flow chart below.



What conclusions can be made from the information given?

- A: P is a plant.
- B: Q is a mammal.
- C: R may be a fungi.
- D: S is not a living thing.

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

Linda had four magnets, D, E, F and G. To compare the strength of the magnets, she brought each of the magnets near a pile of pins.

The table below shows the number of pins attracted by the magnets, D, E, F and G, from various distances.

Magnet	Distance between magnet and pins (cm)	Number of pins attracted
D	4	11
E	3	11
F	5	10
G	3	12

Which one of the following statements is definitely correct?

- A) Magnet D is as strong as magnet E
- B) Magnet F is the strongest magnet
- C) Magnet G is stronger than magnet E
- D) Magnet D is weaker than magnet G

Four similar spoons were used to hold an object each as shown in the diagram below.



Substance A



Substance B



Substance C



Substance D

Which one of the following substances is most likely not a solid?

- A) Substance A
- B) Substance B
- C) Substance C
- D) Substance D

Muthu conducted an experiment. He placed two identical homemade biscuits on the table. He sprinkled some water on one of the biscuits.



biscuit sprinkled
with water



biscuit with no
water sprinkled

Three days later, Muthu noticed that the piece of biscuit that was sprinkled with water had mould on it. The piece of biscuit with no water sprinkled on it did not have any mould.

What can Muthu conclude from the experiment?

-
- A) Mould can make their own food
- B) Mould grow better in damp places
- C) Mould needs sunlight, water and air to survive
- D) Living things can reproduce faster than non-living things

Which of the following objects most likely use magnets to work?

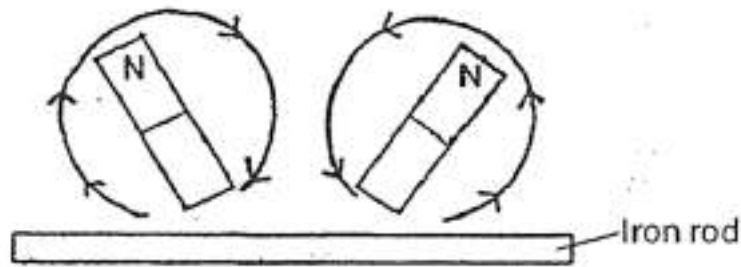
- A: Compass
B: Refrigerator
C: Electric Iron
D: Electric kettle
E: Scrap iron crane

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

Question 20 of 63

Primary 4 Science (Term 4) 2 pts

What will happen to the iron rod if it is stroked thirty times by each of the two magnets?



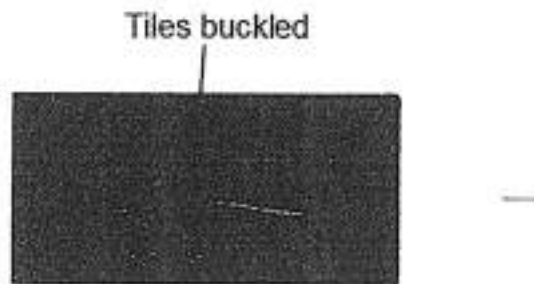
The iron rod will _____.

- A) not become a magnet
- B) become a magnet with two different poles
- C) become a magnet with two north-seeking poles
- D) become a magnet with two south-seeking poles

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Primary 4 Science (Term 4) 2 pts

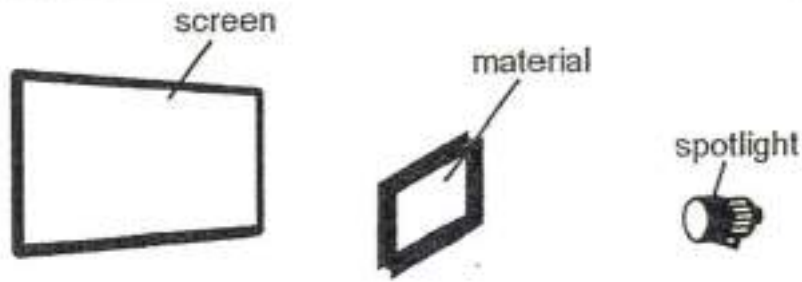
When Ginny reached home on a hot day, she realised that the tiles on her floor in her home had buckled.



The tiles buckled because the _____.

- A) tiles contracted too much
- B) gaps between the tiles were too big
- C) rates of expansion between the tiles were different
- D) tiles were of different shapes

Issac wanted to find out which materials allowed light to pass through using the following set-up as shown below.



Which of the following variables should he keep the same in order to conduct a fair test?

- A: Type of material
- B: Thickness of material
- C: Distance between the material and the screen

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

Dynamic Rope Company produces ropes for all purposes.

A climber made a list of the type of rope she needs:

- It can be coiled up easily.
- It will not weigh her down.
- It will not break if she falls.

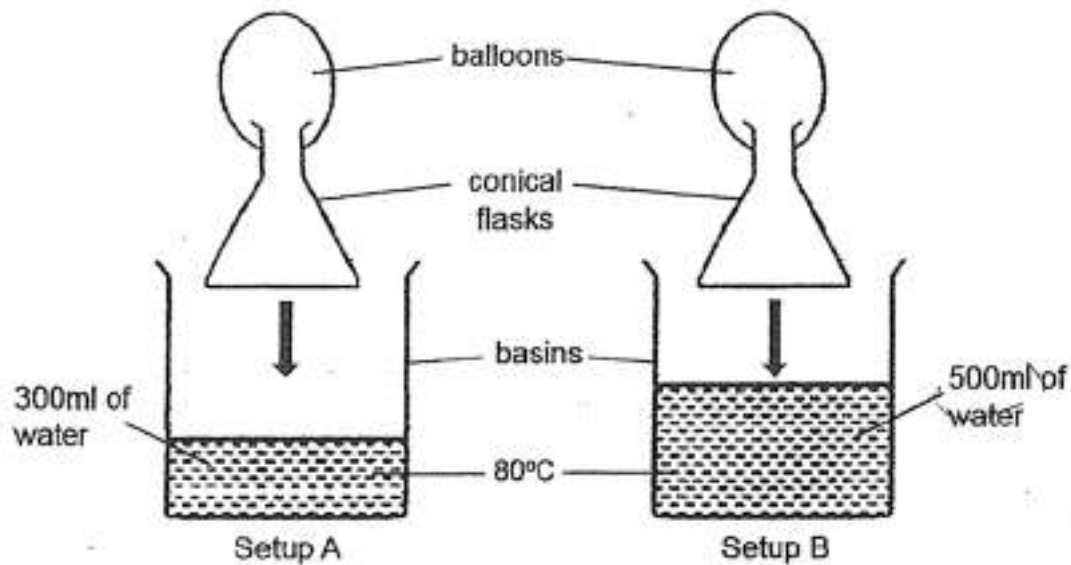
The table below shows 4 types of ropes that the company produces and their properties.

Property \ Rope	Apex	Beta	Delta	Kappa
Flexibility	High	Low	Medium	Low
Weight	Low	Medium	Low	Low
Strength	High	High	Low	High

Which rope should the climber purchase?

-
- A) Apex
- B) Beta
- C) Delta
- D) Kappa

- i. Ronaldo set up an experiment using similar balloons, basins and conical flasks as shown below.



After five minutes, the balloon in setup B was more inflated than the balloon in setup A.

Which one of the following conclusions could Ronaldo make from his experiment?

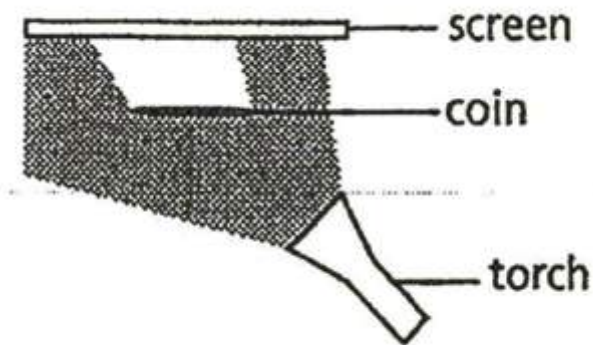
- A) Colder water was used in setup A than in setup B
- B) Water in Setup B contained more heat than the water in setup A
- C) The conical flask in setup A lost more heat than the one in setup B
- D) The conical flask in setup B conducted heat faster than the one in setup A

Which of the following torch positions would create an oval shadow of the 20-cent coin on the screen?

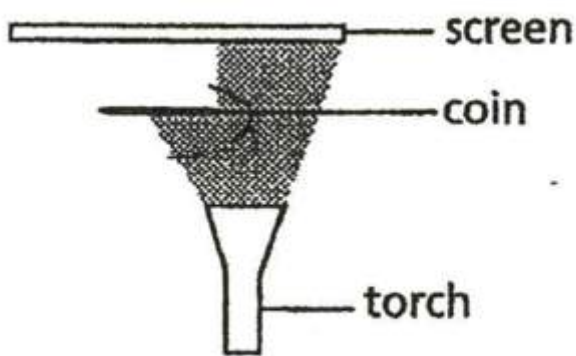


20-cent coin

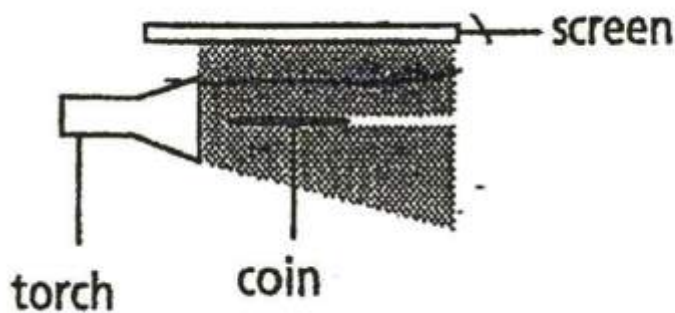
A)



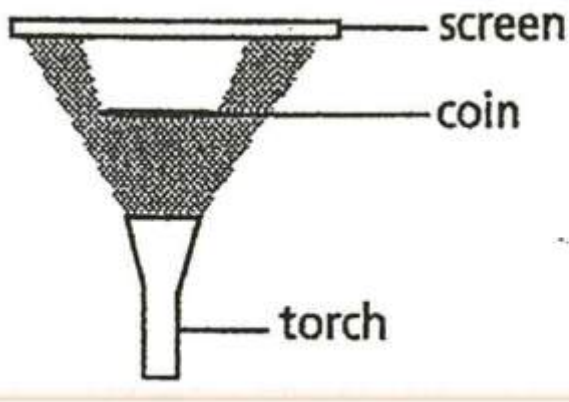
B)



C)



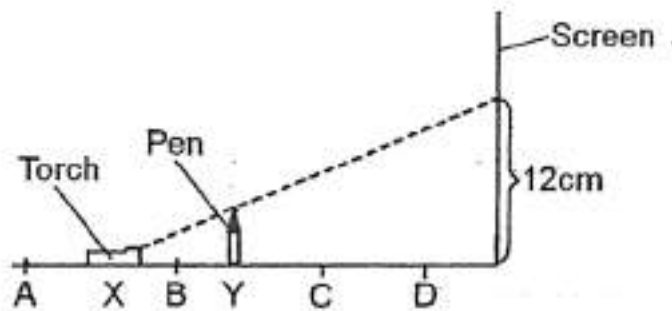
D)



Question 26 of 63

Primary 4 Science (Term 4) 2 pts

Jasmy wanted to find out if the position of the torch and the pen would affect the length of the shadow cast on the screen. She marked 6 points on the table in front of the screen and placed a torch at X and a pen at Y, as shown in the diagram below.



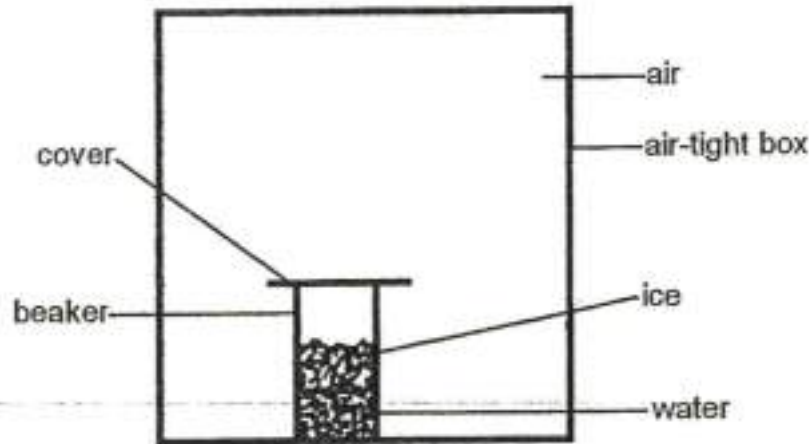
When she switched on the torch, she observed a 12cm long shadow of the pen cast on the screen. Jasmy then placed the torch and the pen at different positions and recorded her observations in the table as shown below.

Which of the following could she have observed?

	Position of torch	Position of pen	Length of the shadow cast (cm)
1)	A	Y	15
2)	B	Y	10
3)	X	B	10
4)	X	C	8

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

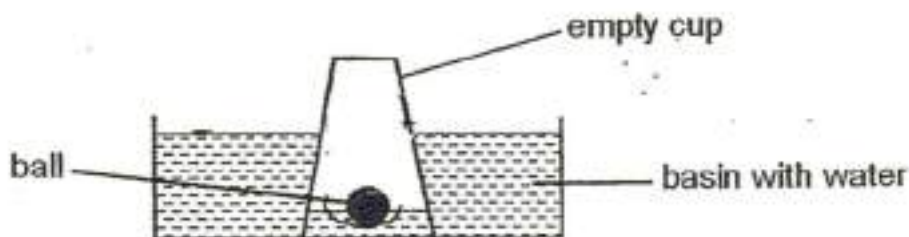
Iris put a beaker of water with ice cubes in an air-tight box as shown in the diagram below.



Which one of the following statements is correct about the air in the box?

- A) The air will gain heat and expand
- B) The air will lose heat and become cooler
- C) The air will gain heat and become warmer
- D) Coldness is transferred from the ice to the air

Gina lowered an empty cup and a small ball into a basin of water until the cup touched the bottom of the basin. She observed that the water level inside the cup was not the same as the water level in the basin. The ball still floated on the water as shown in diagram below.



What could be the main reason for the difference in the water level inside and outside the cup?

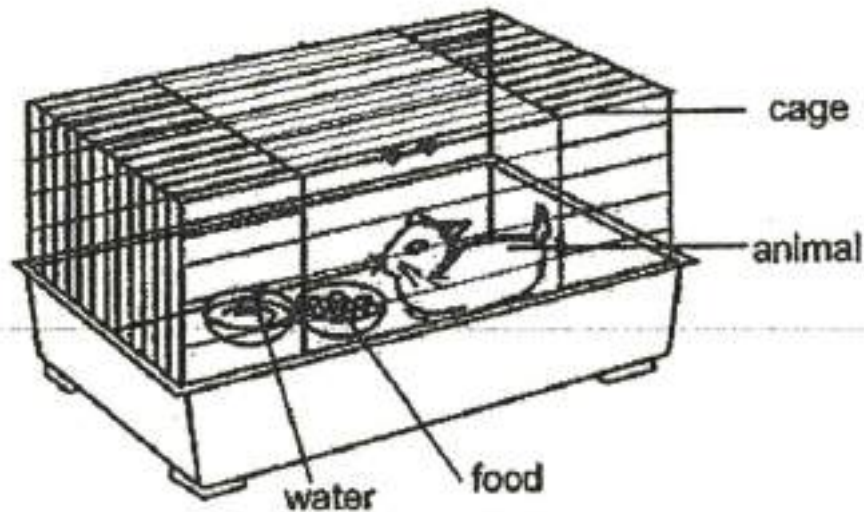
- A) The air trapped in the cup occupied space
- B) The ball pushed the water out from the cup
- C) The air trapped in the cup dissolved in the water
- D) The ball in the cup occupied space

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.

. Study the diagram below.



Circle what happened to the amount of food in the bowl after a few days.

- A) increase
- B) decrease
- C) remain the same

Based on the diagram above, name one substance this animals need so the it can remain alive.

Classify the following animals according to the number of stages in their life cycles. [2]



frog



grasshopper



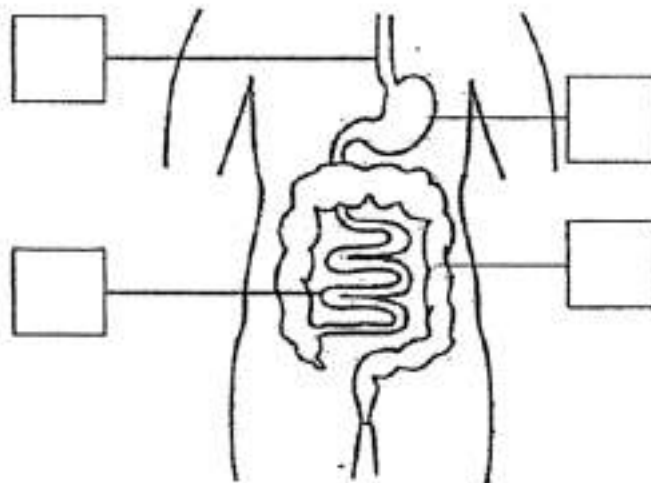
beetle



duck

Three stages	Four stages

The diagram shows part of the human digestive system.



Tick one box to show where the stomach is.

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Primary 4 Science (Term 4)

1 pt

Food from the stomach is next passed on to the _____

- A) small intestine
- B) large intestine
- C) gullet
- D) mouth

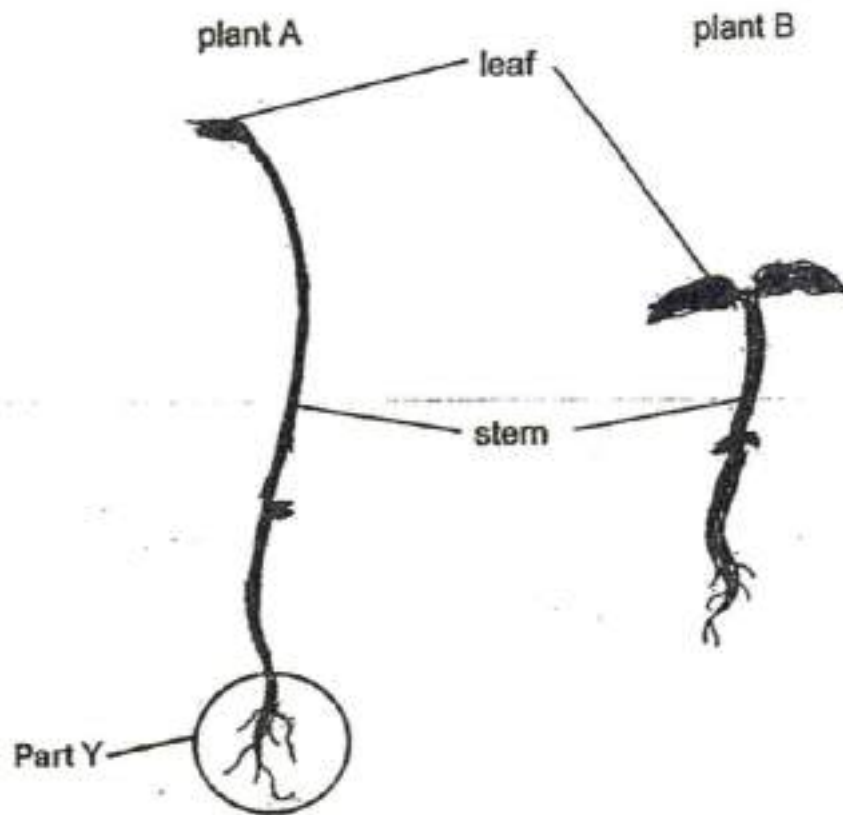
Question 34 of 63

Primary 4 Science (Term 4)

0 pts

Name any two parts of the system where digestive juices are produced

∴ The diagram below shows two plants.



What is one difference between the stem of plant A and the stem of plant B?

The stem of plant A is _____ than the stem of the plant B.

The leaves help both plants make ____ in the light.

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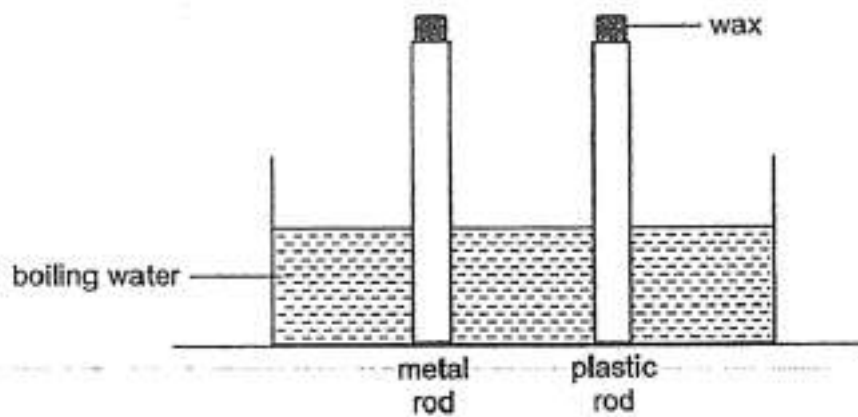
Primary 4 Science (Term 4) 0 pts

When part "Y" is removed, the plant died. Explain

Question 38 of 63

Primary 4 Science (Term 4) 2 pts

Yan Hui placed a metal rod and a plastic rod into a tank of boiling water as shown below. Equal amounts of wax were put on both rods.



What would she observe and why?

[2]

The wax on the metal rod melted _____ than the wax on the plastic rod as metal is a _____ conductor of heat.

Question 39 of 63

Primary 4 Science (Term 4) 0 pts

Yan Hui wants her ice cream to remain frozen for as long as possible. Should she use a metal or plastic container to keep her ice cream in? Explain your answer.

Question 40 of 63

Primary 4 Science (Term 4)

1 pt

Ahmad left a plate of mee rebus in a warm place at the kitchen. Ahmad noticed that the plate of mee rebus looked the same but gave off a bad sour smell the next day. It had turned bad.



Which group of living things caused the mee rebus to turn bad?

[1]

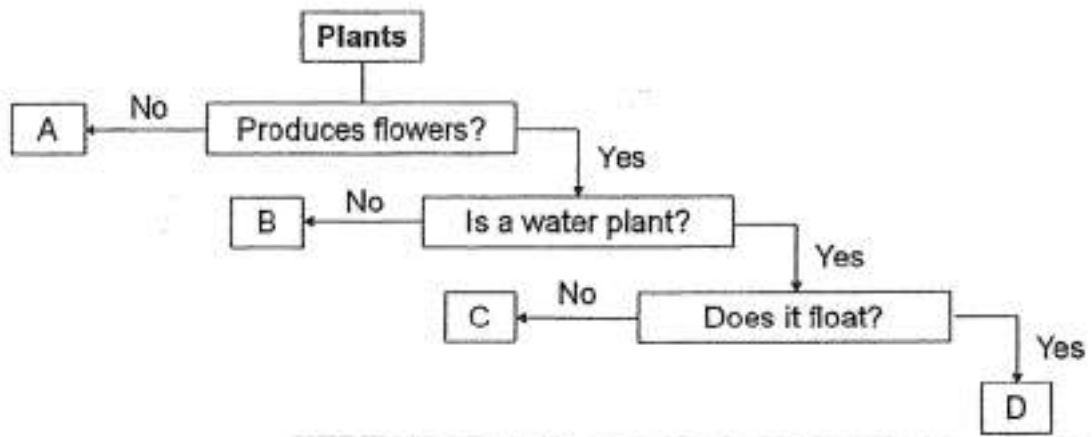
Question 41 of 63

Primary 4 Science (Term 4)

0 pts

What would happen if Ahmad had put the plate of mee rebus in the refrigerator instead?
Explain your answer

The flow chart below shows the characteristics of Plants A, B, C and D.



Felicia observed a living thing, X, and recorded her observations in her notebook.

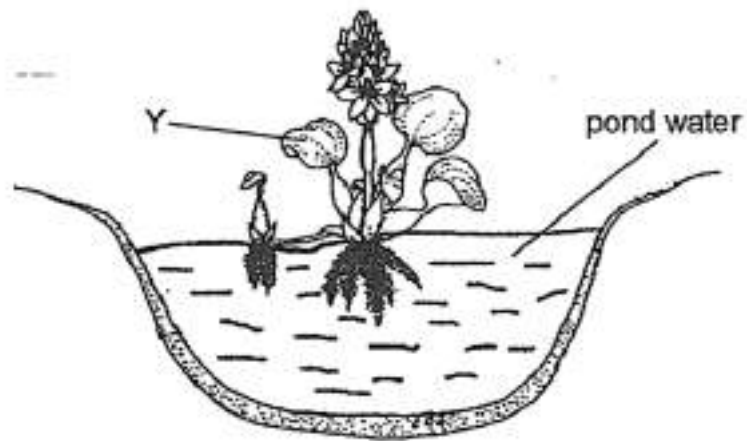
- X grows in water.
- X does not produce flowers.

a) Which plant, A, B, C or D is X most likely to be?

[1]

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

Felicia found another plant, Y, growing in the school garden as shown below.

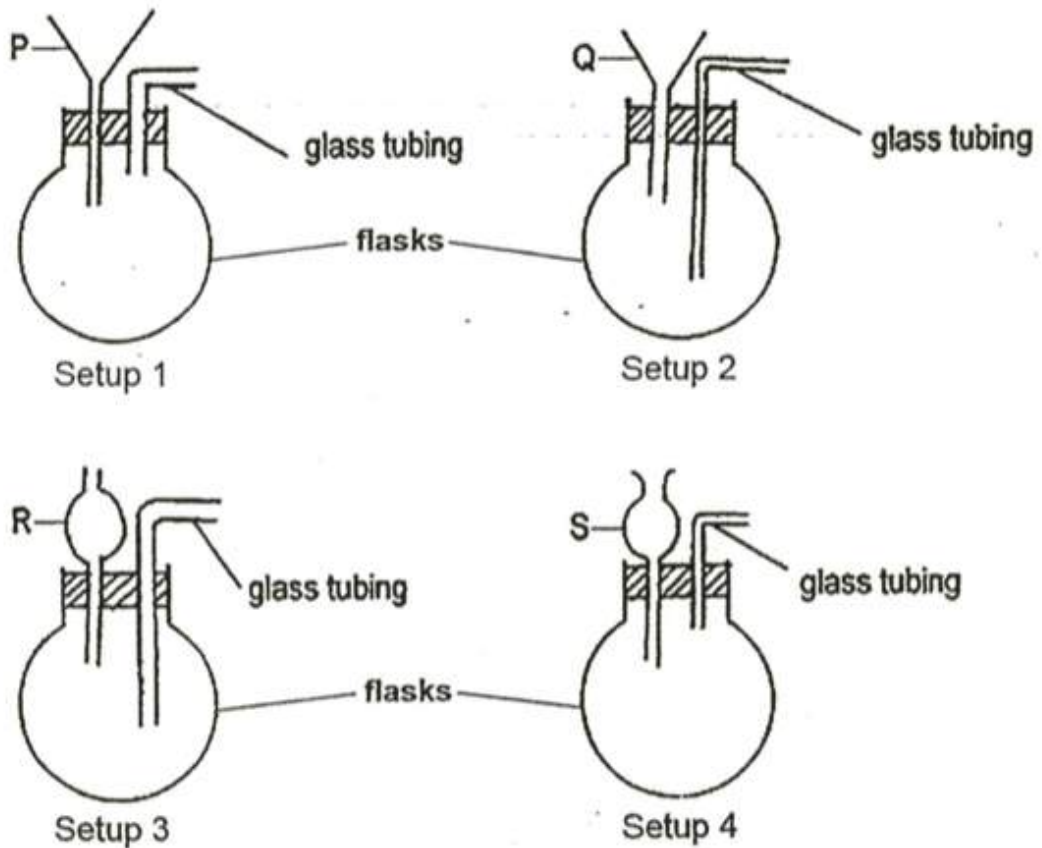


b) Which plant, A, B, C or D can Plant Y be grouped with?

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

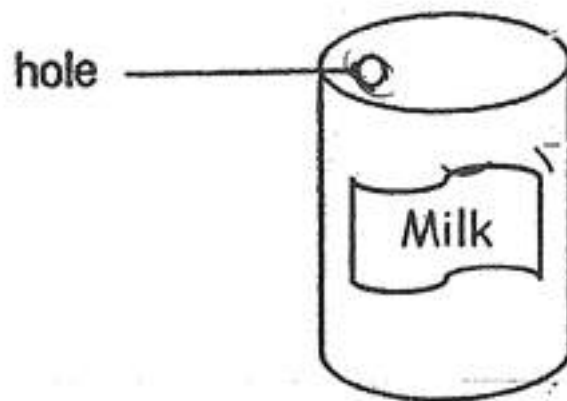
Based on the flow chart above, explain your answer in (b)

4. Mary was given four funnels, labelled P, Q, R and S. She was asked to find out which one of these funnels would allow water to flow through it most quickly. She poured some water into each funnel using the following set-ups and started the stop watch to find out how long the water took to flow into each flask.



Mary's teacher told her to use the glass tubing of the same size for all setups so that it would be a fair test. Why is this so? [1]

- Jason made a hole on the top of a milk can so that he can pour out the milk.

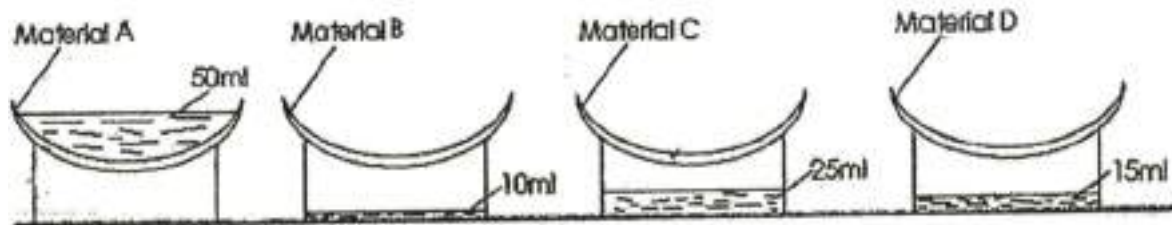


Jason tried pouring the milk out but found that it flowed out very slowly.

- (i) Without enlarging the hole or opening the can, what could Jason do so that the milk could flow out faster? [1]

Explain how the suggestion in (a) would allow the milk to flow out more easily.

Mrs Lee wanted to find out which one of the 4 materials, A, B, C or D is able to absorb the most amount of water. She placed the 4 materials over 4 water troughs respectively and poured 50ml of water onto each of the materials. The diagrams below show the amount of water that was able to pass through the materials after 30 minutes.



Arrange the materials according to how well they absorb water.

Write down A, B, C and D in the boxes below.

[2]

Match the options below:

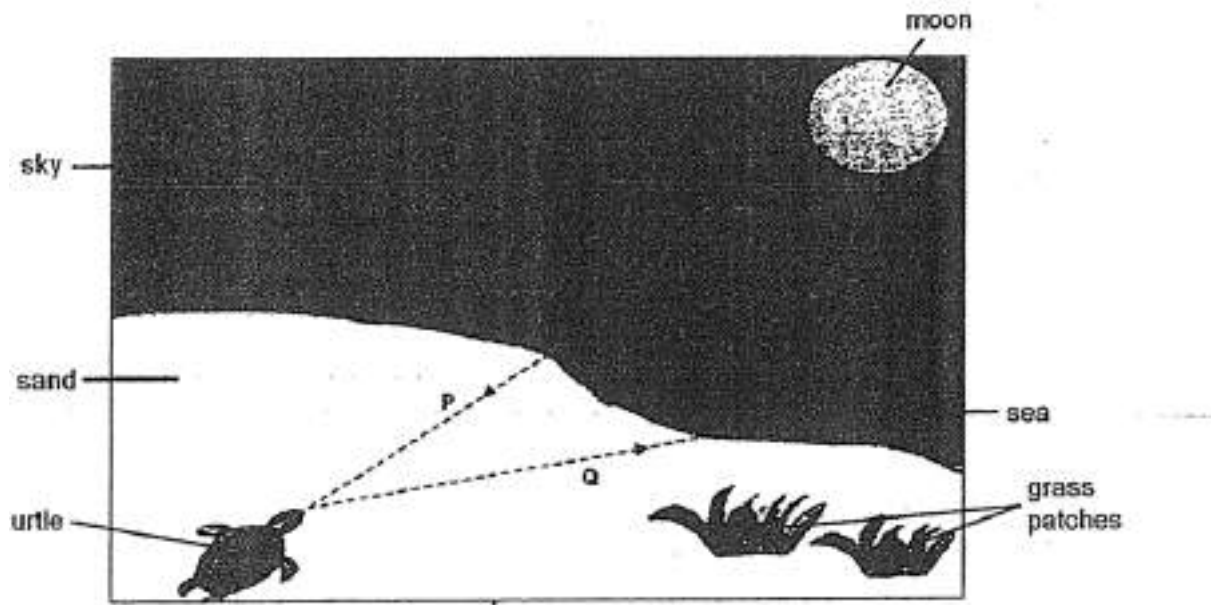
1. [] B	A. Most absorbent
2. [] D	B. More absorbent
3. [] C	C. Less absorbent
4. [] A	D. Least absorbent

b) Based on your answer in (a), which material, A, B, C or D, is most suitable to make part J and K? Give a reason for your answer. [2]



Part	Material used	Reason
J		
K		

On a beach one night, Rahim observed a turtle moving on the sand.

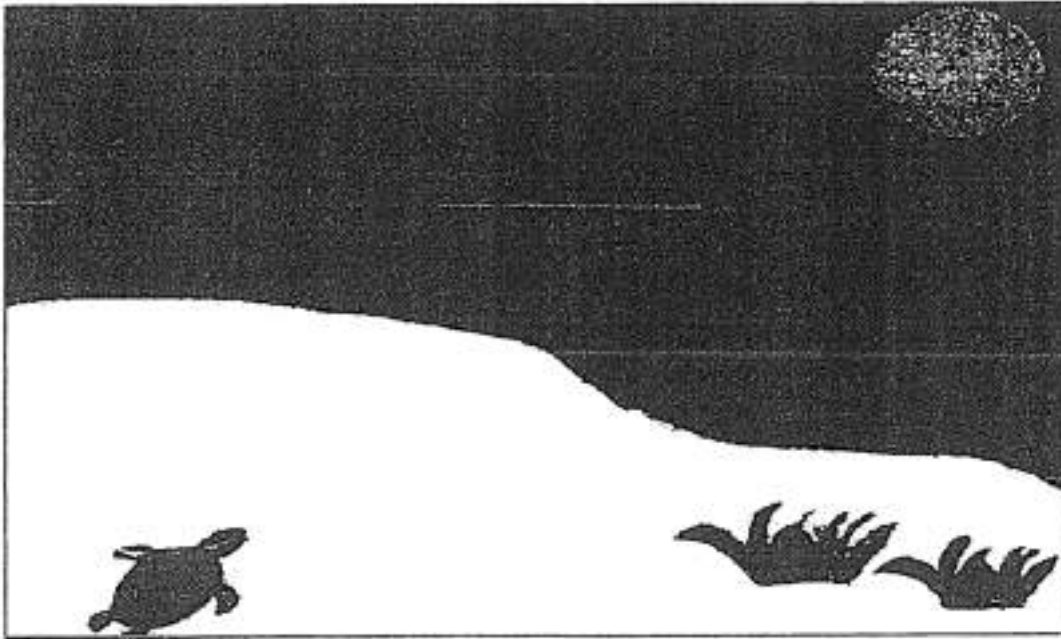


Which set of arrows, P or Q, correctly shows how the turtle could see the moon?

[1]

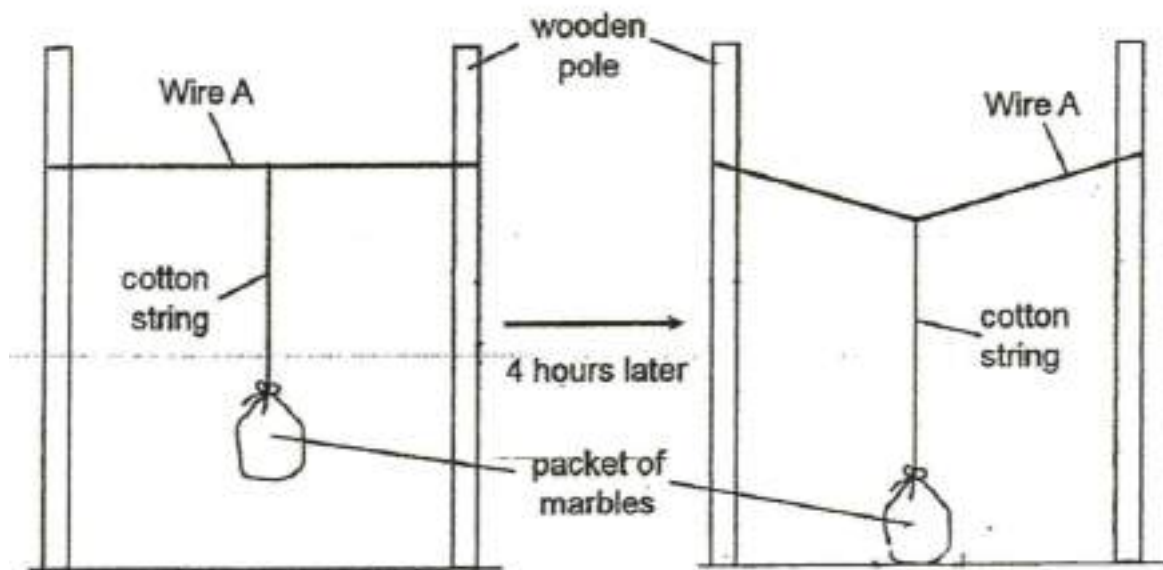
- A) P
- B) Q

Draw another set of arrows to show how the turtle can see the grass in the moonlight in the diagram below. — [1]



Please type "done" to proceed to the next question

Jay tied a packet of marbles on Wire A on a hot day and observed it every hour. After four hours, he observed that the packet of marbles touched the ground as shown in the diagram below.



The next day, he repeated the experiment by replacing Wire A with Wire B under the same conditions. However, the packet of marbles did not touch the ground. What was Jay trying to find out? [1]

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Primary 4 Science (Term 4) 1 pt

Tick two variables that do not affect the results of the experiment.

- A) length of wire
- B) mass of marbles
- C) thickness of wire
- D) colour of marbles
- E) colour of the wooden poles

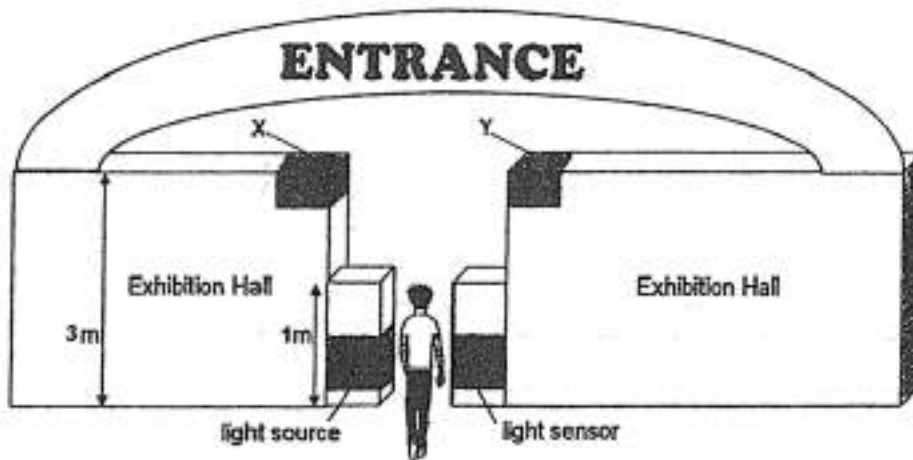
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Primary 4 Science (Term 4) 1 pt

Which wire, A or B should Jay used to make an outdoor clothes line?

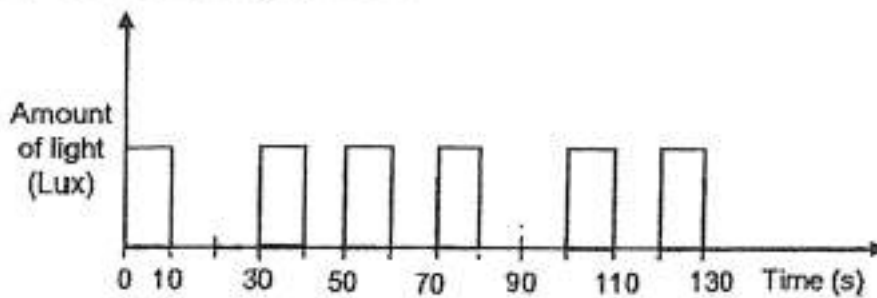
- A) A
- B) B

The diagram below shows a light sensor which is used to count the number of people entering an exhibition hall.



The space between the light source and sensor only allows one person to enter the exhibition hall each time.

When the person enters the exhibition hall, the light is blocked. The readings of the sensor are recorded in the graph below.

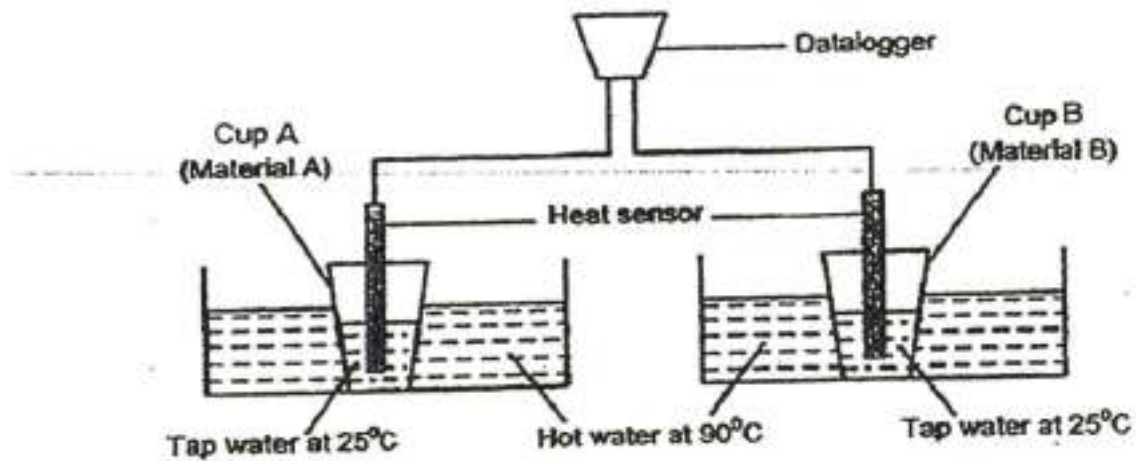


a) How many people have gone into the exhibition hall in the first 80 seconds? [1]

if the sensor and light sourced moved to part X and part Y, the sensor cannot accurately record the number of people entering the exhibition hall. Why?

Which property of light allows this light sensor to work?

1. Mrs Fong carried out an experiment using two cups, A and B, made of different materials, A and B, respectively. She filled both cups with the same amount of water at a temperature of 25°C and placed them each into a basin of hot water at 90°C as shown in the diagram below.

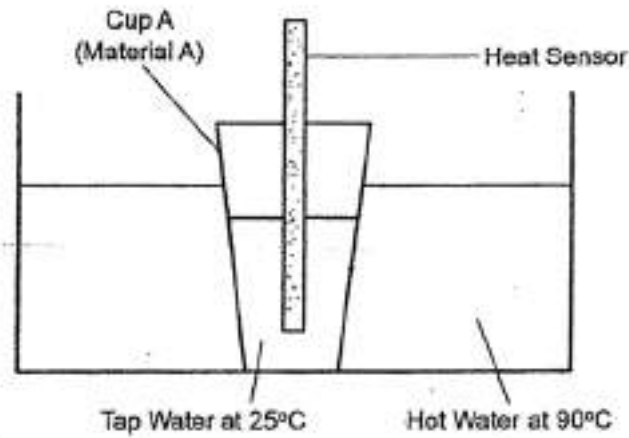


Mrs Fong then used a datalogger to measure and recorded the temperature of water inside cups A and B for ten minutes. The results are shown below.

Cup	Temperature of water inside the cup		
	0 min	5 min	10 min
A	25°C	40°C	50°C
B	25°C	35°C	75°C

- a) Which material, A or B, is a better conductor of heat? Explain your answer using the results. [1]
-

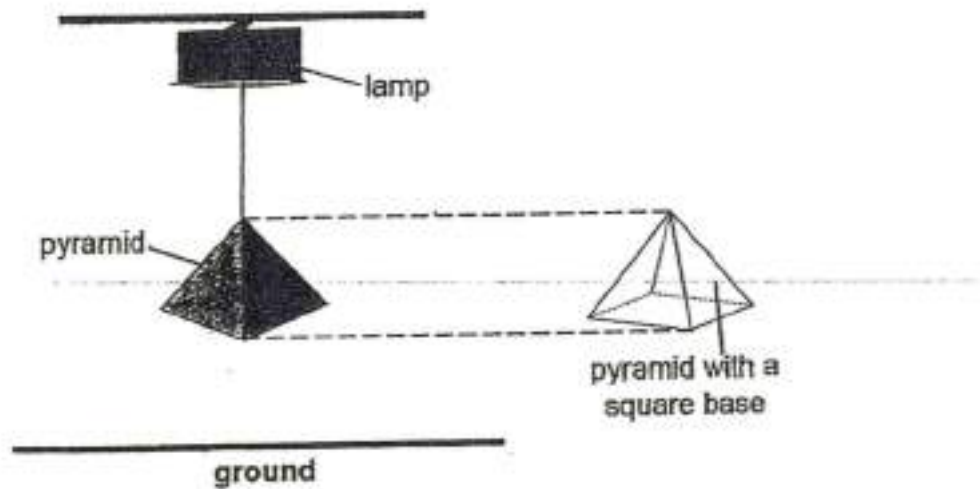
- b) In the diagram below, draw an arrow to show how heat is transferred between the water in the basin and the water in the cup. [1]



Please type "done" to proceed to the next question

When will the heat transfer between the hot water in the basin and the water in the cup stop?

In the diagram below, Lynn hangs a wooden pyramid with a square base directly below a lamp which is fixed on the ceiling.



- a) Draw how the shadow would look like on the ground in the box below. [1]

Please type "done" to proceed to the next question

Question 62 of 63

To make a bigger shadow on the ground, what can Lynn do to the string?

- A) cut the string
- B) lengthen it
- C) shorten it

Question 63 of 63

When the pyramid is turned upside down, its distance from the ground remains the same as in (a). Will its shadow be bigger, smaller or the same as in (a)?

- A) bigger
- B) smaller
- C) same as (a)