

Test: Primary 4 - Term 2 (SA1) Science (SCGS)

Points: 57 points

Name: _____

Score: _____

Date: _____

Signature: _____

Select multiple choice answers with a cross or tick:

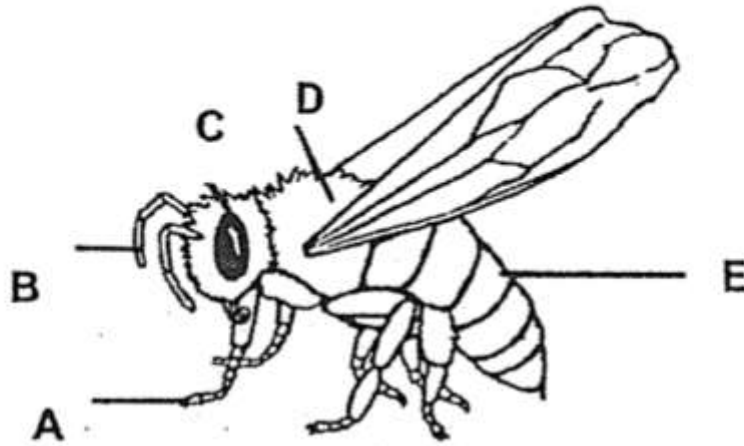
Only select one answer

Can select multiple answers

Booklet A (25 x 2 marks)

For each question from 1 to 25, four options are given. One of them is the correct answer.

The picture below shows a honeybee.



Which of the following parts are labelled correctly?

	Antenna	Thorax	Abdomen
(1)	A	C	D
(2)	A	D	E
(3)	B	C	D
(4)	B	D	E

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

Question 2 of 47

Primary 4 Science (Term 2) 2 pts

The table below shows the properties of materials A, B and C. A tick (✓) indicates that the material has the property.

Material	Properties			
	Flexible	Waterproof	Ability to float	Breaks easily
A	✓	✓	✓	
B	✓		✓	
C	✓			
D		✓	✓	✓

Which material, A, B, C or D, would you use to make a shower cap to keep the hair dry in the shower?

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

Question 3 of 47

Primary 4 Science (Term 2) 2 pts

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

(1)	gullet → stomach → large intestine → small intestine
(2)	gullet → stomach → small intestine → large intestine
(3)	stomach → small intestine → gullet → large intestine
(4)	stomach → gullet → small intestine → large intestine

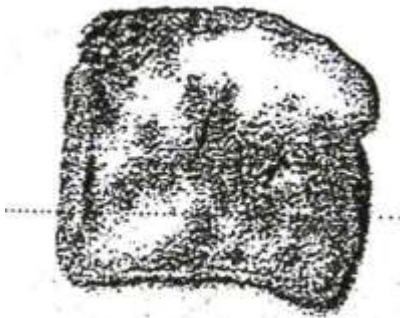
- A) 1
- B) 2
- C) 3
- D) 4

Which one of the following shows how water travels in a plant?

- A)** stem -> leaf - > roots
- B)** roots -> stem -> leaf
- C)** stem -> roots -> leaf
- D)** roots -> fruit -> flowers

Which of the following is a flowering plant?

A)



(1) Bread Mould

B)



(2) Bird's Nest Fern

C)



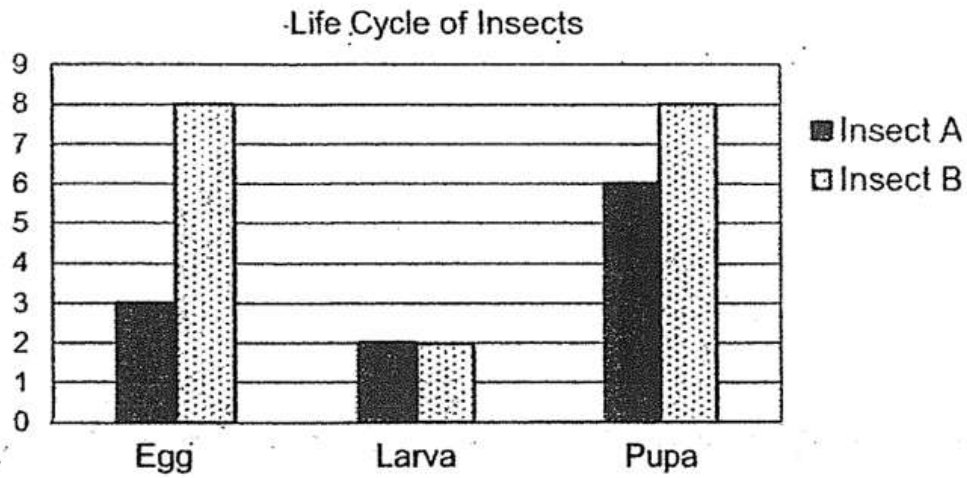
(3) Mushroom

D)



(4) Mango Tree

The diagram below shows the duration of the first 3 stages of the life cycles of Insect A and Insect B respectively.



Which of the following is most likely to represent Insect A and Insect B respectively 9 days after the eggs were hatched?

	Insect A	Insect B
(1)	Pupa ✓	Larva ✓
(2)	Pupa	Adult
(3)	Adult	Pupa
(4)	Adult	Adult

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

The characteristics of 3 types of living things, X, Y and Z, are shown in the table below.

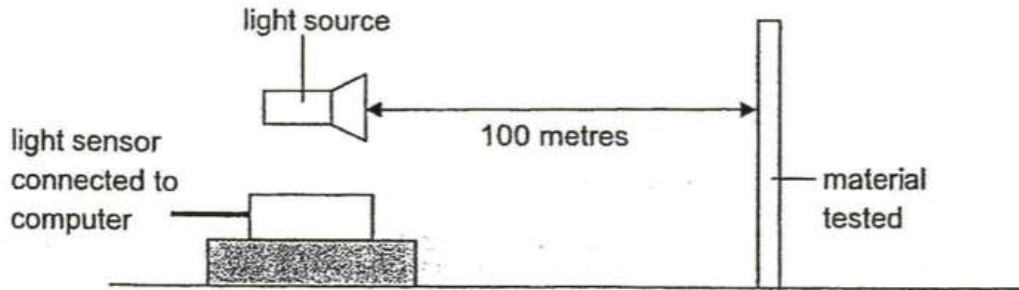
	X	Y	Z
Does it make its own food?	Yes	No	Yes
Can it produce flowers?	Yes	No	No

Which of the following statements is/are true?

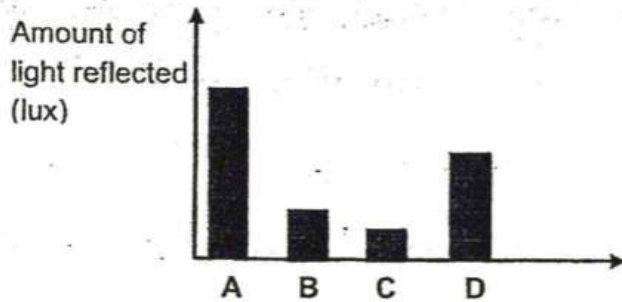
- A: X and Z have green leaves
- B: X and Z reproduce by seeds.
- C: Y and Z are ferns.
- D: X is a flowering plant.

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

Daniel conducted an experiment to find out the amount of light reflected by four different materials, A, B, C and D. He set up his experiment as shown in the diagram below.



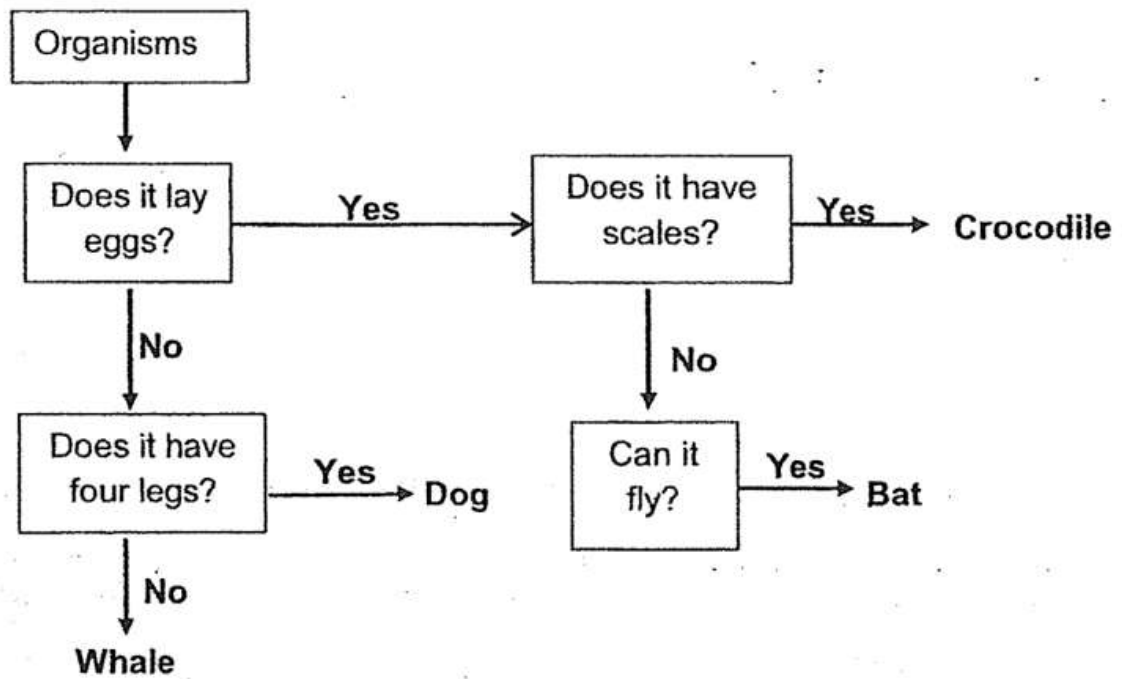
He placed the material at 100 metres away from the light source and he used a light sensor to record the amount of light reflected. The results are shown in the graph below.



Based on the results of his experiment, which material would be most suitable to make the letterings of a signboard along the road so that motorists can see them clearly from far away at night?

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

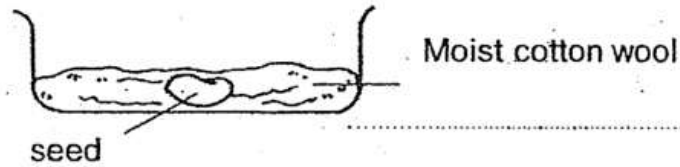
Study the flowchart below.



Which animal is classified wrongly?

- A) Crocodile
- B) Whale
- C) Dog
- D) Bat

Rachel wanted to find out what is the best temperature for seed germination and prepared 4 set-ups similar to the one shown in the diagram below.



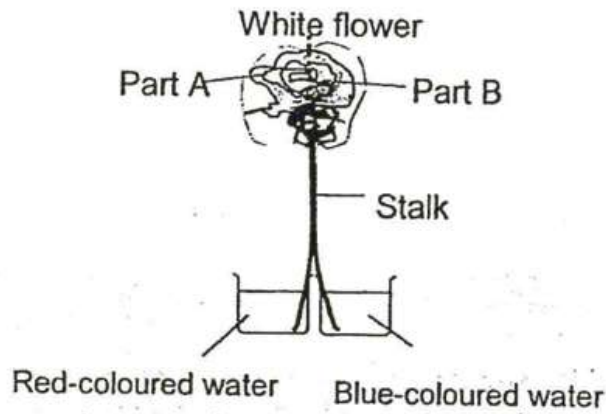
She placed the 4 set-ups at different locations as shown in the table below.

Set-up	Location	Temperature
A	In the oven	85°C
B	In the fridge	2°C
C	In the cupboard	26°C
D	In the classroom	30°C

In which 2 set-ups would the seed germinate?

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

Eve split the stalk of white flower into 2 halves. She placed half of the stalk in red-coloured water and the other half in blue-coloured water as shown below. The set-up was left overnight.

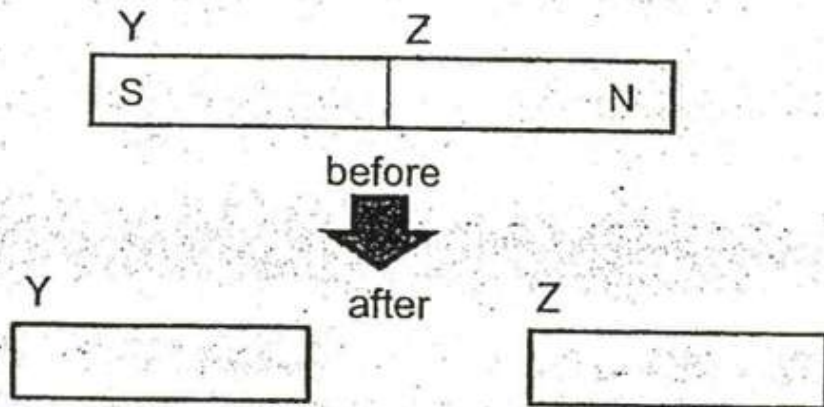


The next day, what would Eve observed?

	Part A	Part B
(1)	White	White
(2)	Blue	Red
(3)	Red	Blue
(4)	Purple	Purple

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

Paul broke a bar magnet into two pieces.

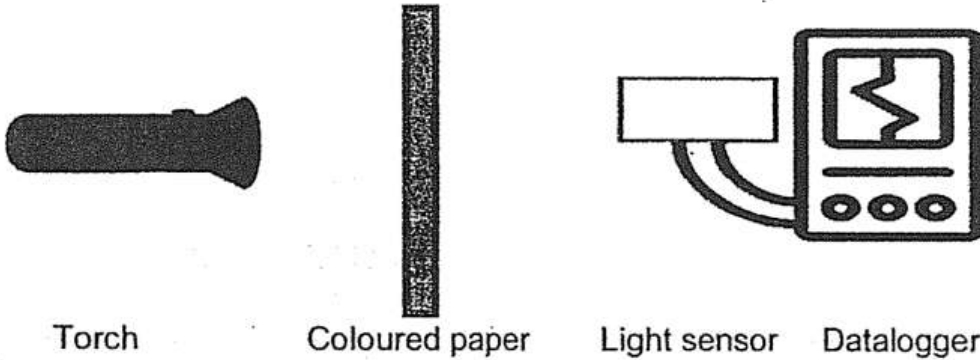


Which of the following shows what poles Y and Z are?

	Y	Z
(1)	North	North
(2)	South	South
(3)	North	South
(4)	South	North

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

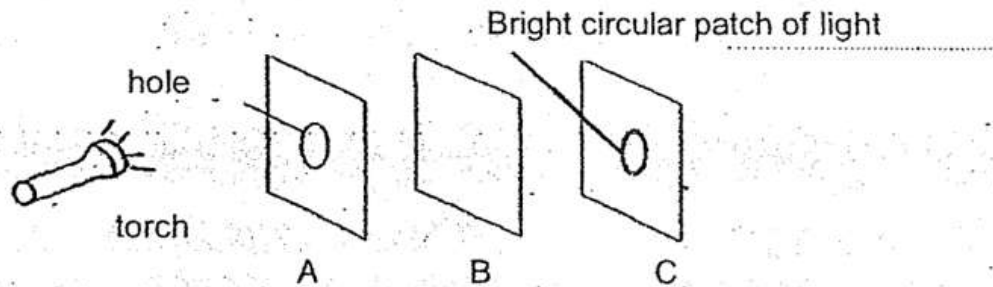
Sammi used the set-up below to find out how different types of coloured paper affects the amount of light that passes through it.



Which of the following must Sammi change to conduct the experiment?

-
- A) Types of coloured paper
 - B) Amount of light that passes through the coloured paper
 - C) Distance of torchlight to the coloured paper
 - D) Thickness of coloured paper

Pamela conducted the experiment as shown below in a dark room. The sheets A, B and C, are arranged in a straight line. When the torch is turned on, a circular patch of bright light is seen on sheet C only.

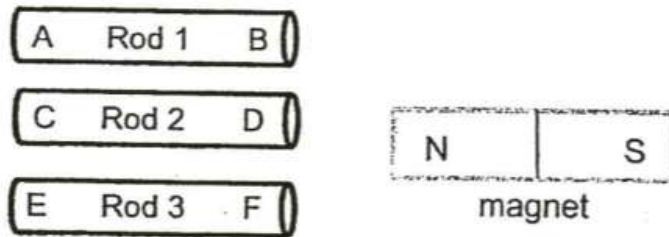


Which of the following materials are sheets A, B and C made of respectively?

	Sheet A	Sheet B	Sheet C
(1)	Wood	Clear plastic	Rubber
(2)	Rubber	Wood	Clear plastic
(3)	Clear plastic	Wood	Rubber
(4)	Clear plastic	Clear plastic	Wood

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

Jimmy has three rods, 1, 2 and 3 as shown below. They are made of different materials.



When a magnet is placed near the ends of each rod at a time, he observed the following results.

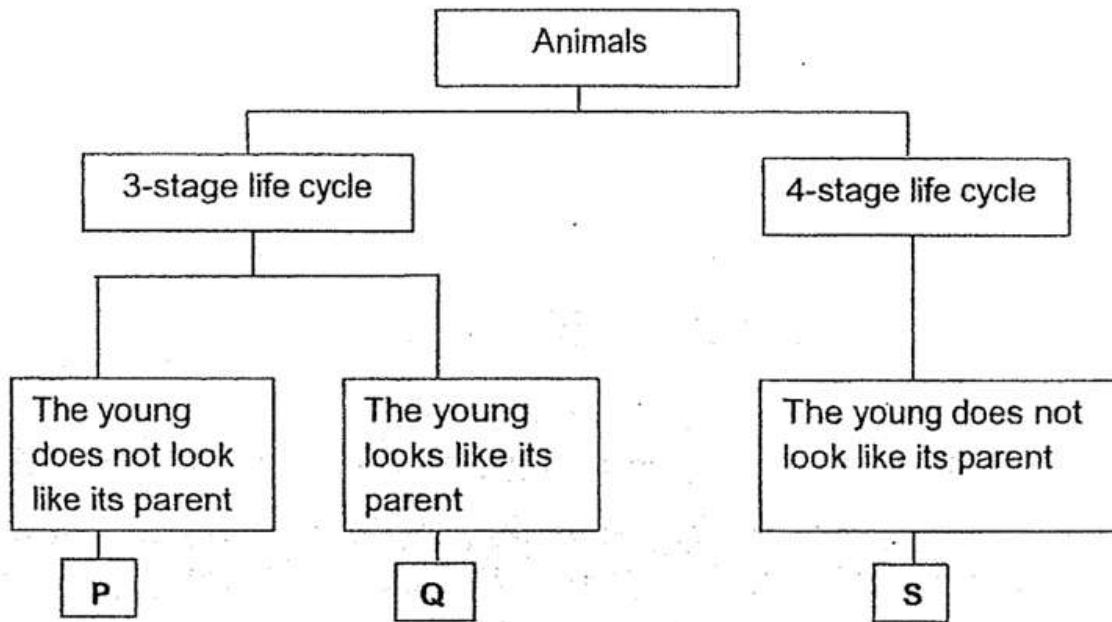
Rod	End	Response to North Pole	Response to South Pole
1	A	Attracted	Attracted
	B	Attracted	Attracted
2	C	Did not move	Did not move
	D	Did not move	Did not move
3	E	Attracted	Repelled
	F	Repelled	Attracted

Identify the materials of Rod 1, 2 and 3.

	Rod 1	Rod 2	Rod 3
(1)	Copper	Iron	Steel
(2)	Steel	Plastic	Copper
(3)	Iron	Plastic	Steel
(4)	Aluminium	Steel	Iron

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

Study the classification chart below. P, Q and S represent 3 different animals.



Which of the following animals represent P, Q and S ?

	P	Q	S
(1)	Frog	Cockroach	Mealworm Beetle
(2)	Grasshopper	Mealworm Beetle	Cockroach
(3)	Frog	Mealworm Beetle	Cockroach
(4)	Grasshopper	Cockroach	Mealworm Beetle

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

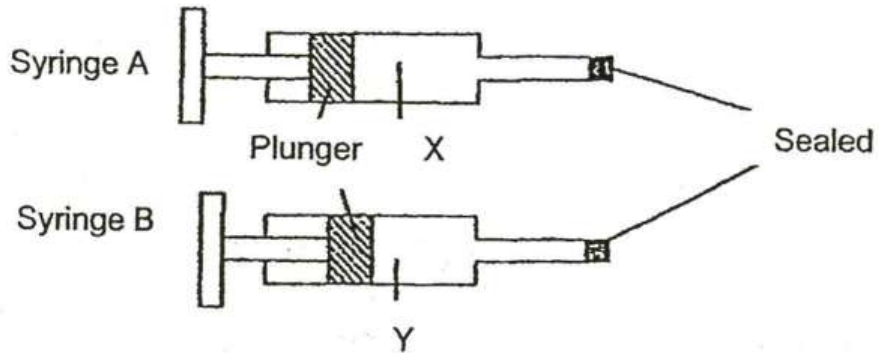
Annie conducted an experiment to find out if the amount of sunlight affected the rate of growth of a plant. She listed the following variables below:

- A: Amount of sunlight
- B: Amount of water
- C: Type of seed
- D: Duration of experiment

Which variables should Annie keep the same in order to conduct a fair test?

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

Two syringes, A and B, contained substances X and Y respectively. The nozzles of the syringes were sealed. The plunger in syringe A could not be pushed in while the plunger in syringe B could be pushed in slightly as shown in the diagram below.

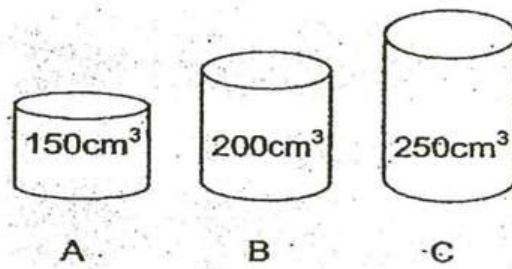


Which of the following substances are most likely to be X and Y?

	X	Y
(1)	Liquid	Solid
(2)	Gas	Liquid
(3)	Liquid	Gas
(4)	Solid	Liquid

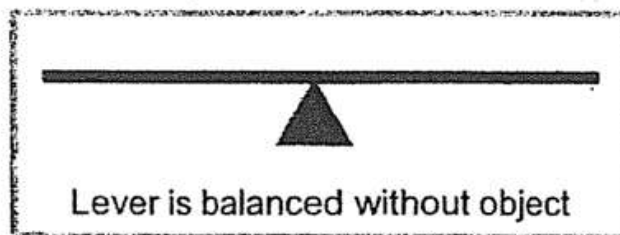
- A) 1
- B) 2
- C) 3
- D) 4

Tom wants to transfer 200cm^3 of oxygen into each of the containers A, B and C. Which of the following containers can he use to hold all of the oxygen?

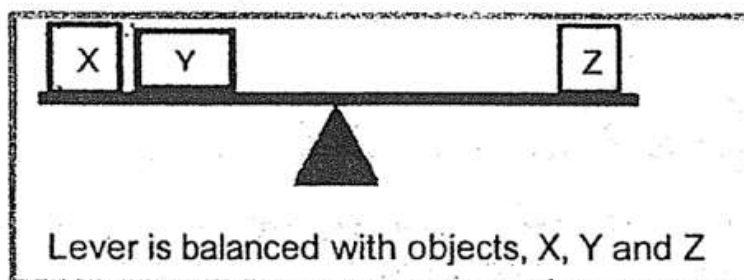


- A) B only
- B) C only
- C) B and C only
- D) A, B and C

Charlie carried out an experiment as shown in the setup below.



He placed objects X, Y and Z on the balance as shown in diagram below.



Which of the following can be concluded from the setup above?

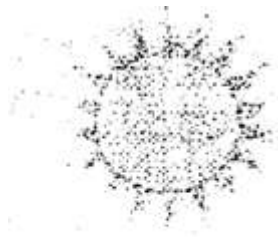
- A) Object X has a greater mass than Object Z
- B) Object Y has a greater mass than Object Z
- C) Object Y has the greatest mass
- D) Object Z has the greatest mass

Which of the following does not have mass?

- A)** feather
- B)** lightning
- C)** ping pong ball
- D)** water

Which of the following is not a source of light?

A)



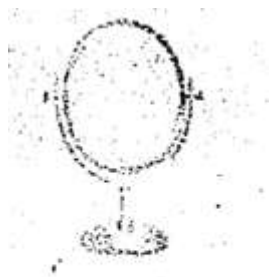
(1) Sun

B)



(2) Lighted bulb

C)



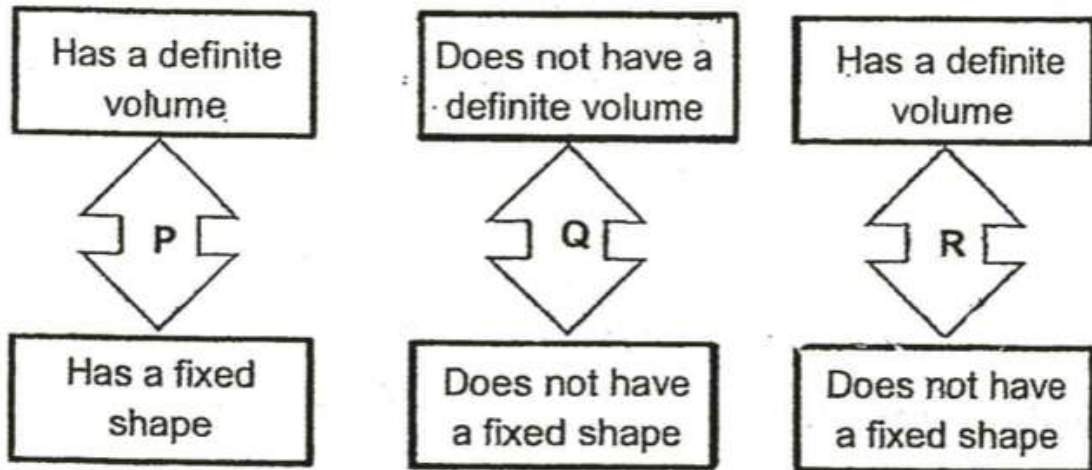
(3) Mirror

D)



(4) Fire

Study the diagram below.



Which of the following could be P, Q and R?

	P	Q	R
(1)	Water	Ice	Sand
(2)	Juice	Oxygen	Water
(3)	Paper	Oxygen	Juice
(4)	Ice	Sand	Oxygen

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

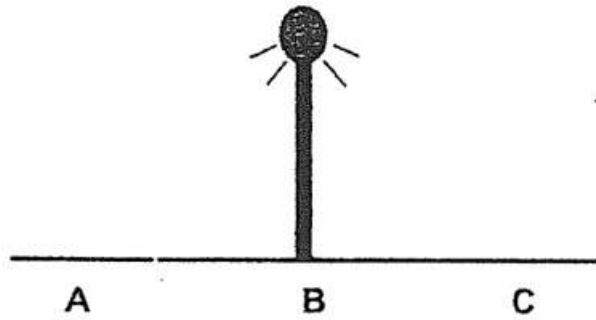
The table below shows properties of K, L, M and N.

Properties	K	L	M	N
Has a definite shape				√
Has a definite volume			√	√
Can be seen	√	√	√	√
Can be compressed		√		
Can occupy space		√	√	√

Which one, K, L, M or N, is an ice cube?

- A) K
- B) L
- C) M
- D) N

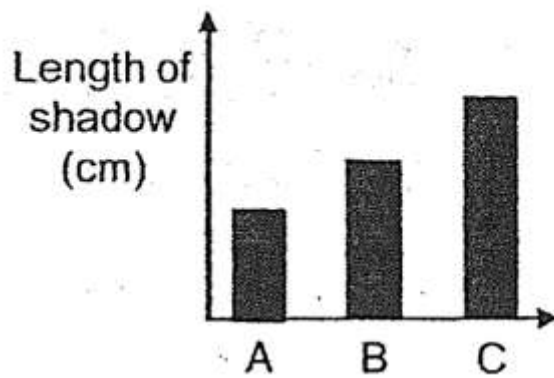
Amy walked past a lighted street lamp from A to C on a dark night.



Which one of the following shows the likely changes in the length of Amy's shadow when she walked past the lighted street lamp from A to C?

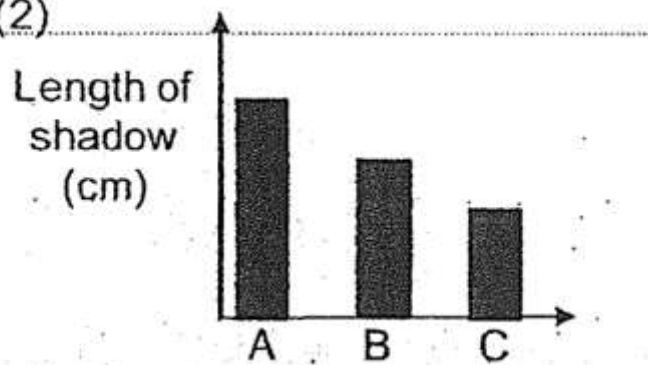
A)

(1)



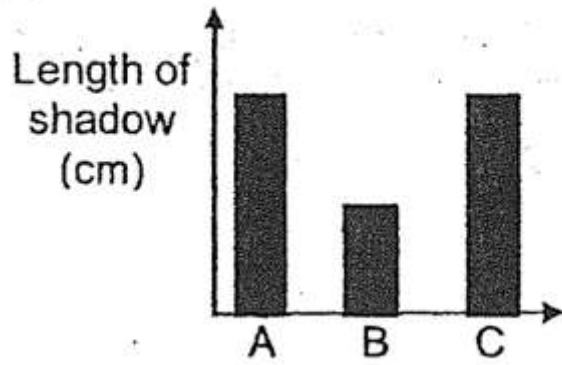
B)

(2)



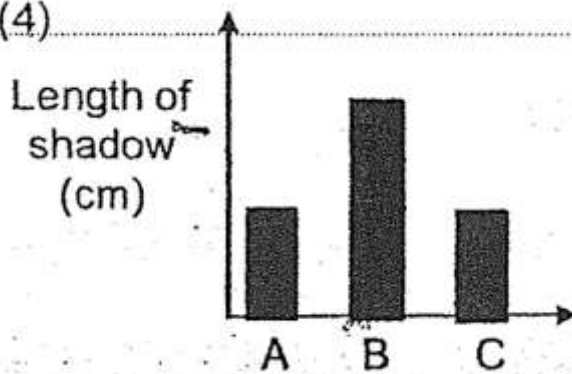
C)

(3)



D)

(4)



Question 26 of 47

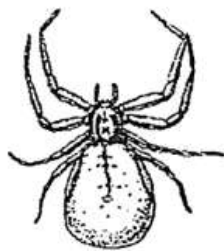
Primary 4 Science (Term 2) 0 pts

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.

Study the 2 animals below.



Animal A



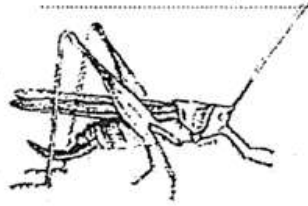
Animal B

Based on what you can see only, state two differences between the two animals. (2m)

Question 27 of 47

Primary 4 Science (Term 2) 0 pts

Study the animal below and compare it to Animals A and B.



Animal C

Which animal, A or B, is Animal C more similar to? Explain your answer. (1m)

Question 28 of 47

Primary 4 Science (Term 2) 0 pts

State one similarity between the life cycle of a grasshopper and a cockroach

Question 29 of 47

Primary 4 Science (Term 2) 0 pts

Study the characteristics of the four living organisms, D, E, F and G, shown below.

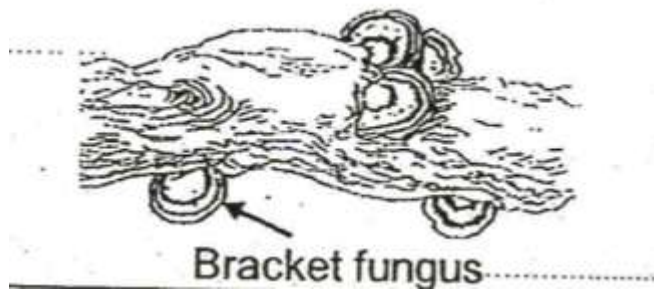
Characteristics	Living organisms			
	D	E	F	G
Found on land	√		√	√
Bear flowers	√	√		
Reproduce from spores				√

Describe Organism D. (1m)

Question 30 of 47

Primary 4 Science (Term 2) 1 pt

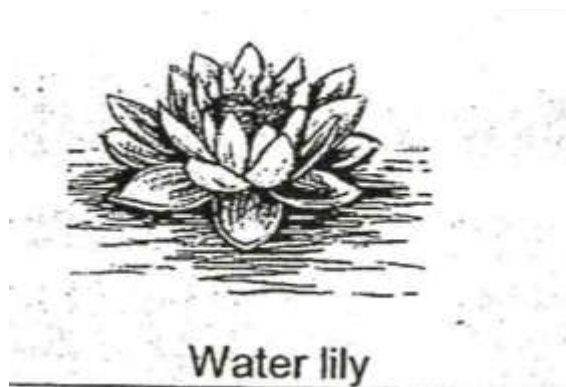
Based on the characteristics of the four living organisms above, match the letters to the ones shown below.



- A) D
- B) E
- C) F
- D) G

Question 31 of 47

Primary 4 Science (Term 2) 1 pt



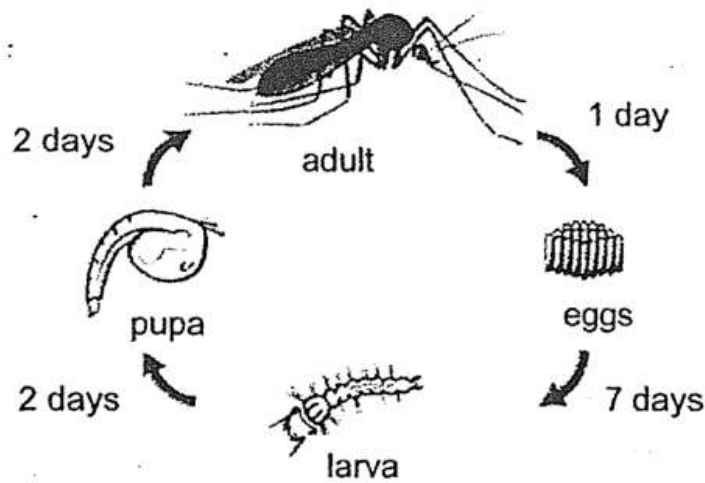
- A) D
- B) E
- C) F
- D) G

Question 32 of 47

Primary 4 Science (Term 2) 0 pts

Based on the characteristics in the table above, state a difference between bracket fungus and water lily.

The diagram below shows a detailed life cycle of a mosquito.



State a similarity between the life cycle of a mosquito and a frog. (1m)

Which stage(s) of the life cycle of the mosquito is/are found in water? (1m)

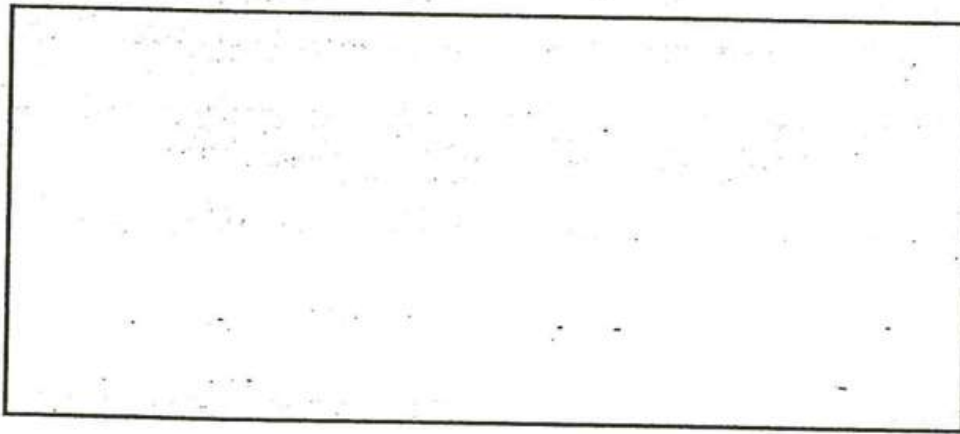
How long does it take for the mosquito to become an adult after the egg is laid? (1m)

Give one reason why getting rid of stagnant water will reduce the number of mosquitoes. (1m)

Study the set-up below. When a torch is switched on, a shadow is formed on the screen.



Draw the shadow of the object on the screen provided below. (1m)



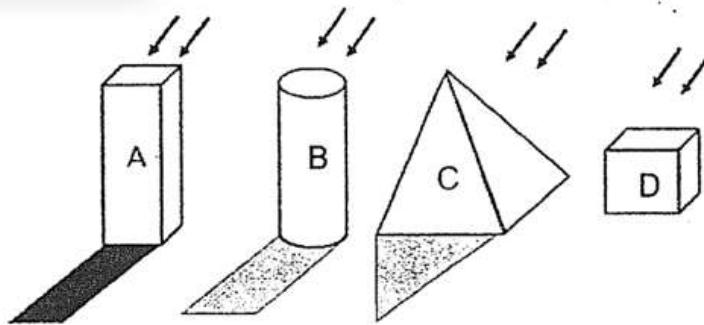
Type "done" to proceed to the next question

Without moving the torch, state 2 ways that will cause a smaller shadow to be formed on the screen.

Question 36 of 47

Primary 4 Science (Term 2) 0 pts

John placed four objects, A, B, C and D on the floor in a dark room. He shone a torchlight on the objects and recorded his observations of the shadows in the table below.



Based on the above observations, classify the four objects, A, B, C and D, in the table below. (2m)

Amount of light allowed to pass through		
Most	Some	None

Question 37 of 47

Primary 4 Science (Term 2) 1 pt

Mervin carried out an experiment on the germination of seeds of two plants, Plant X and Plant Y. The seeds were placed in a room with suitable conditions for germination and the mass of Plants X and Y was recorded over a period of 9 days as shown in the table below.

Plant	Mass of Plant (g)				
	Day 1	Day 3	Day 5	Day 7	Day 9
X	1	0.8	0.6	0.4	0.2
Y	0.4	0.4	0.4	0.6	0.8

Mervin made a mistake in the results of one of the plants. Which plant did he record the results wrongly? (1m)

Plant _____

Question 38 of 47

Primary 4 Science (Term 2) 0 pts

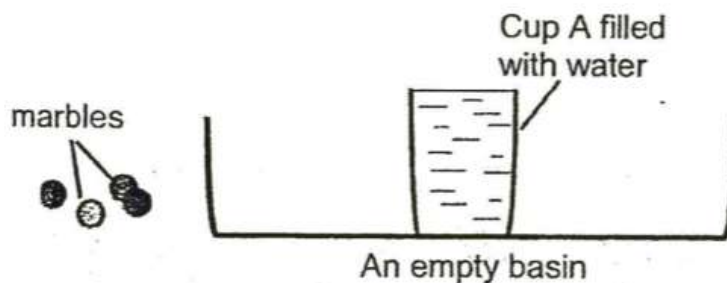
Mervin cut off the seed leaves for both plants X and Y on Day 10 of his experiment. He noticed that both plants still continued to grow healthily. Explain how the plants were still able to survive after the seed leaves were cut off.

Question 39 of 47

Primary 4 Science (Term 2) 0 pts

Jared filled Cup A with water to the brim and placed it in an empty basin.

Jared had some marbles.



Without touching or tilting Cup A and the basin, suggest how Jared can transfer some water from Cup A into the basin. (1m)

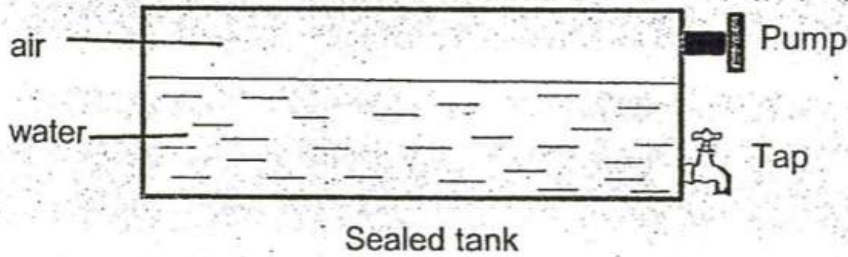
Question 40 of 47

Primary 4 Science (Term 2) 0 pts

Using the method in (i), what does the amount of water transferred into the basin represent?

The capacity of the tank below is 300cm^3 . It is filled with 200cm^3 of water and 100cm^3 of air.

Jared removed 50cm^3 of water using the tap and then pumped in 100cm^3 of air into the sealed tank.

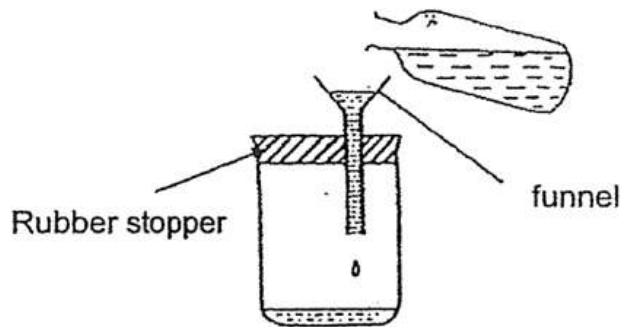


Complete the table below to indicate the final volume of the water and air in the sealed tank. (2m)

	Before (cm^3)	After (cm^3)
Air	100	

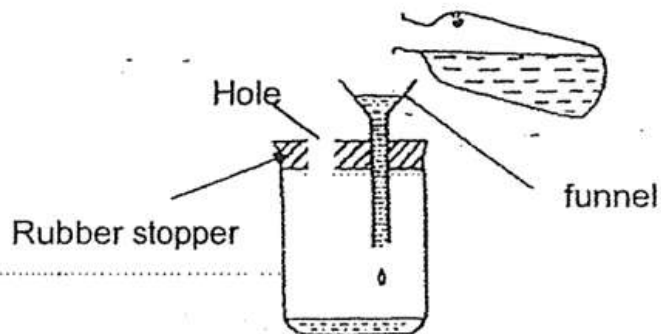
Water	200	
-------	-----	--

Ken set up the experiment as shown below. He observed that water dripped into the beaker at a very slow rate.



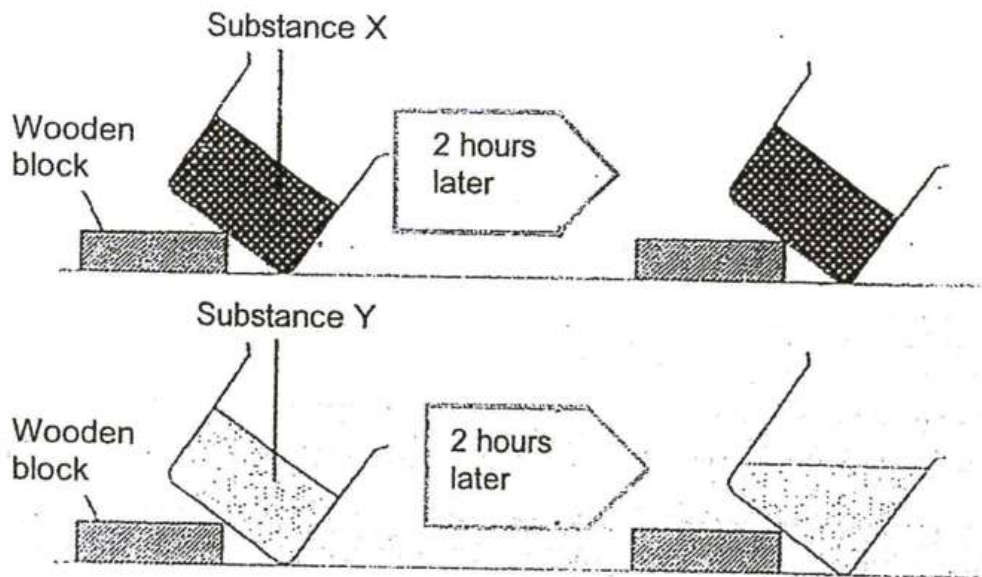
Give a reason why the water drips into the beaker so slowly. (1m)

Ken made a hole in the stopper as shown below.



Ken noticed that the water can flow faster after making a hole in the rubber stopper. Explain why the water can flow faster. (2m)

Jamie set up an experiment in the classroom as shown below. She tilted the 2 beakers and observed the shape of Substances X and Y.



Based on the diagram above, what is the state of Substances X and Y after 2 hours? (2m)

Substance X: _____

Substance Y: _____

Explain your answer in (a)