Test:	Primary 4 Science (Term 4) - Tao N	lan (2020)	
Points:	60 points		
Name:		-	Score:
Date:		-	
Signature:		-	

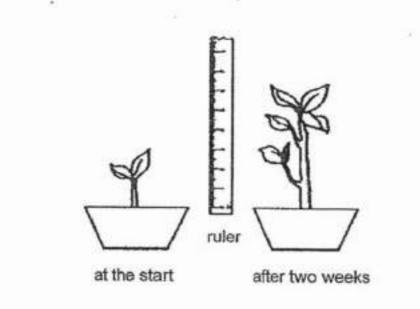
Select multiple choice answers with a cross or tick:

Only select one answer

Can select multiple answers

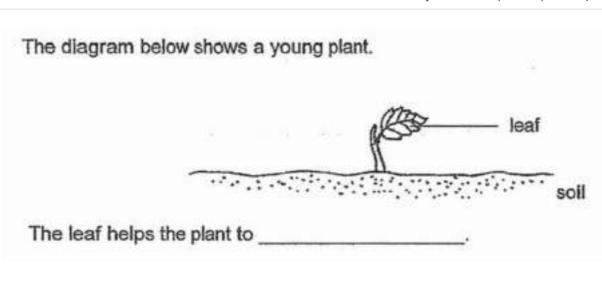
For each question, four options are given. One of them is the correct answer. (22 x 2 marks)

Sarah found a plant in the garden and measured its height. After two weeks, she measured its height again.



From her observation, Sarah concluded that the plant is a living thing because it can ______

- **A**) grow
- **B**) breathe
- **C)** reproduce
- **D**) respond to changes around it



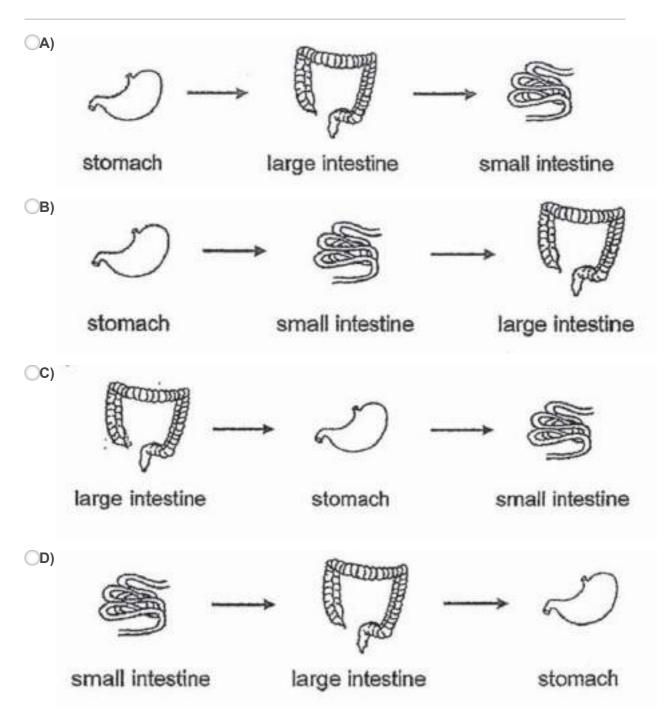
A) make food

Question 2 of 52

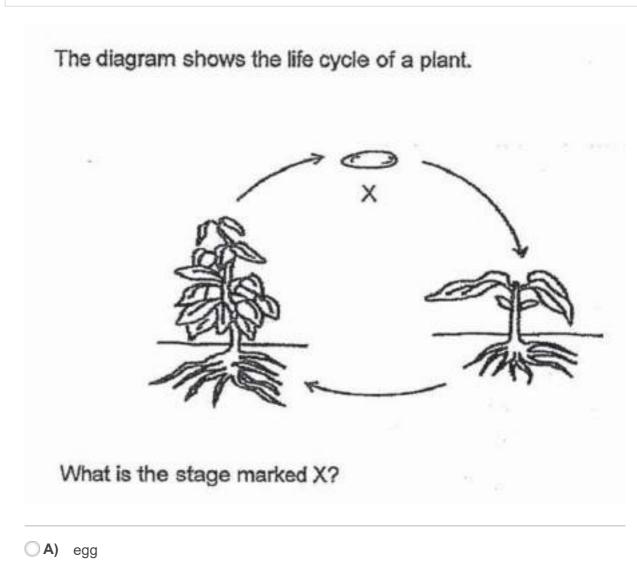
- **B**) grow upright
- C) absorb water
- **D**) absorb nutrients

Question 3 of 52

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



Question 4 of 52



- OB) seed
- C) adult plant
- OD) young plant

Question 5 of 52

Image: Image:

- **A**) is shiny
- B) is strong
- **C**) sinks in water
- OD) conducts heat well

Question 6 of 52

Primary 4 Scie	nce (Term 4) 2 pts
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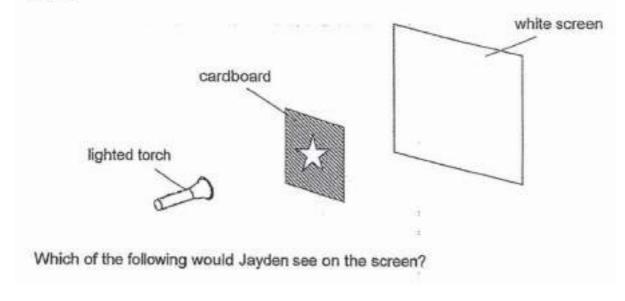
	magnet	
	object A	
OF	iant A in mode of	
	ject A is made of	
-	ject A is made of steel wood	
() A)	steel	
O A) O B)	steel wood	

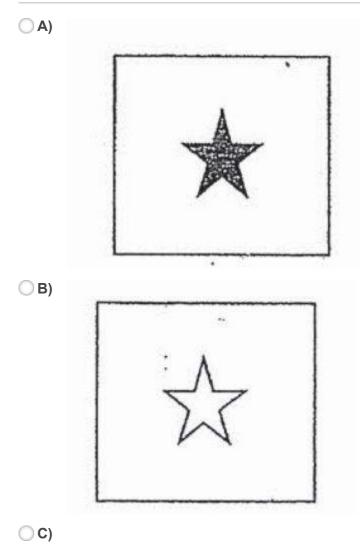
51 1

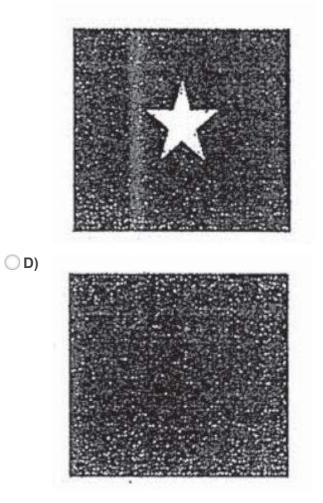
- A) They can be seen.
- **B**) They take up space.
- \bigcirc C) They have fixed shapes.
- **D)** They have fixed volumes.

Question 8 of 52

Jayden set up an experiment as shown below. First, he cut a star out of a square cardboard. He then placed the cardboard in a straight row. A torch was shone at them.

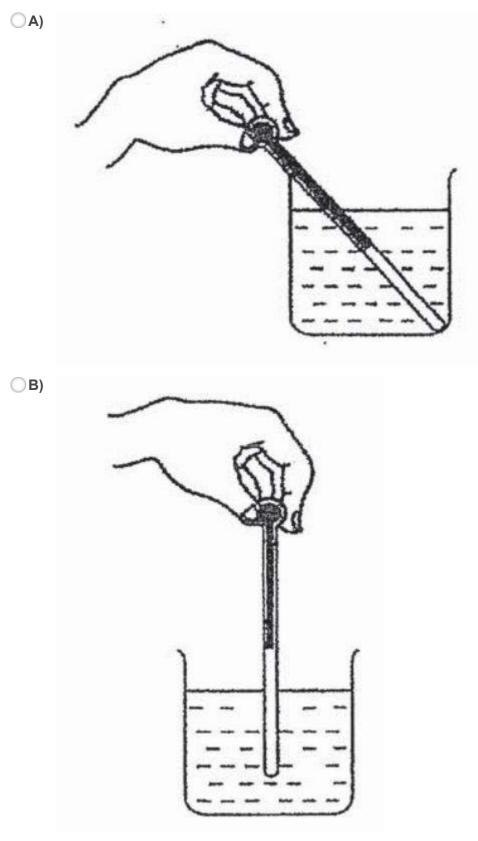




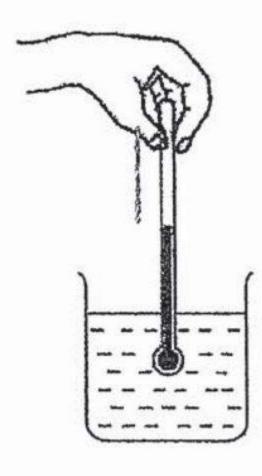


Question 9 of 52

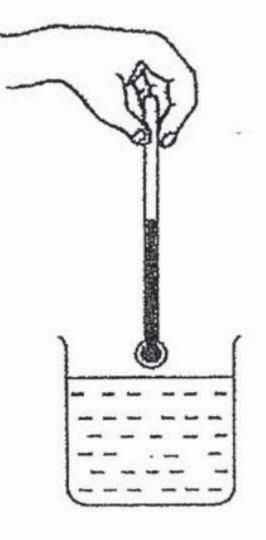
Jane wants to measure the temperature of water in a beaker. Which of the following diagrams shows the correct position of the thermometer when taking the temperature reading?



OC)



OD)



Question 10 of 52

Primary 4 Science (Term 4) 2 pts

Which of the following is not a source of heat?

- A) the Sun
- ◯ B) a lighted bulb
- C) a woollen cap
- **D**) a candle flame

Question 11 of 52

James was riding his bicycle as shown below.

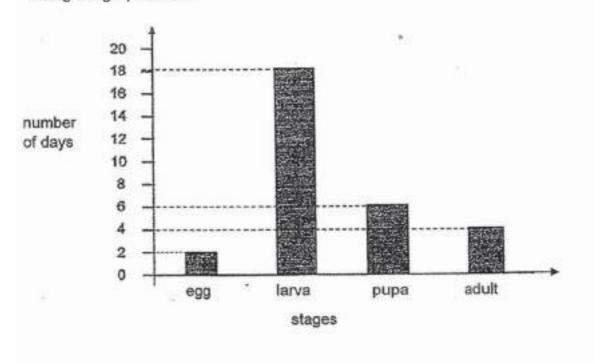


Which of the following system(s) is/are needed for James to be able to cycle?

- A: Skeletal System
- B: Muscular System
- C: Circulatory System
- D: Respiratory System
- **A**) B only
- **B**) A and B only
- OC) A, B and D only
- **D**) A, B, C and D

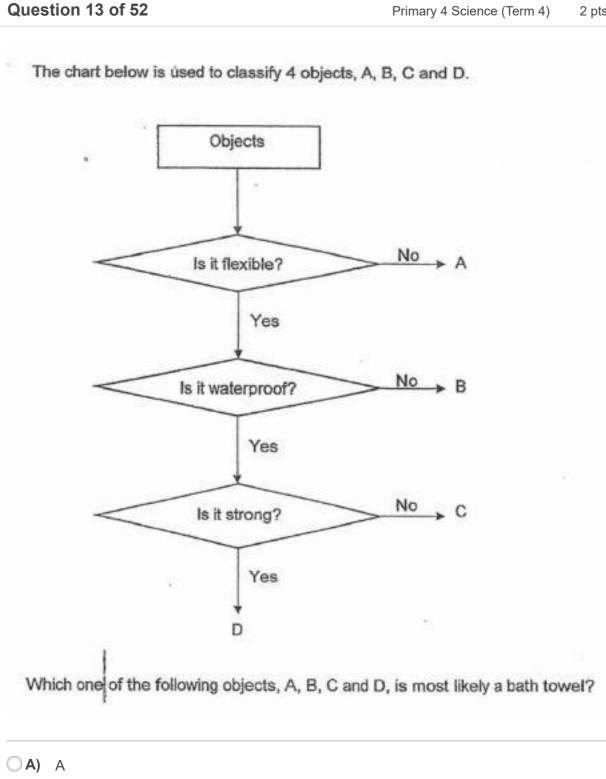
Question 12 of 52

Joan studied the life cycle of a particular insect and recorded her observations using the graph below.



Based on the information given, which of the following conclusions is incorrect?

- A) The insect has four stages in its life cycle.
- **B)** The insect does not feed on Day 21 of its life cycle.
- **C)** The insect spends most of its life cycle in the larva stage.
- **D)** The insect takes 26 days to become an adult after the egg has hatched.

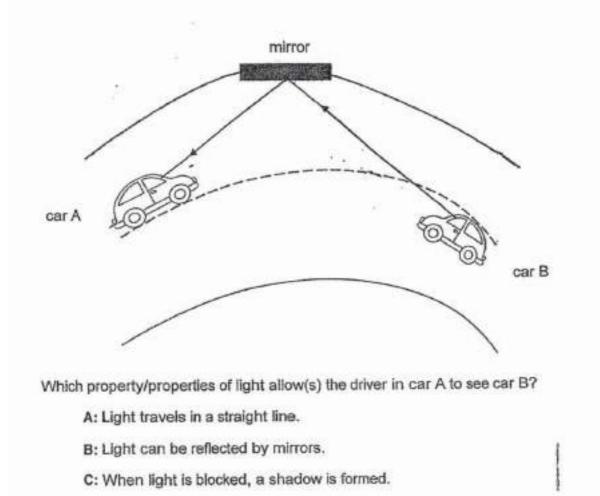


○ B) B

- **○**C) C
- OD) D

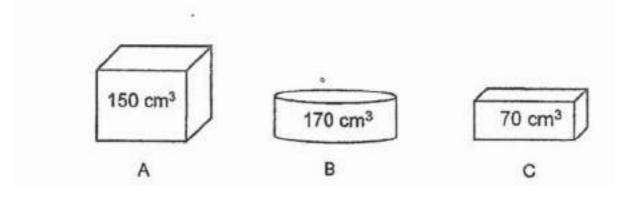
Question 14 of 52

A mirror was placed at a road bend by a mountain side to prevent the cars from colliding with each other when they go round the bend as shown in the diagram below.



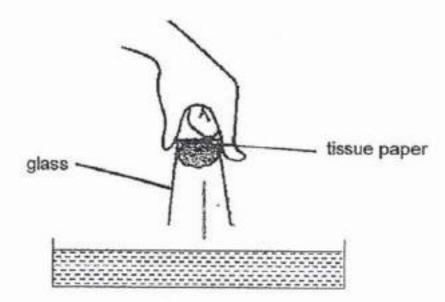
- **A**) A only
- **B**) A and B only
- **C**) B and C only
- **D**) A, B and C only

Which of the following containers(s) can hold 150 cm3 of air?



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

John stuck a piece of tissue paper into the bottom of a glass.

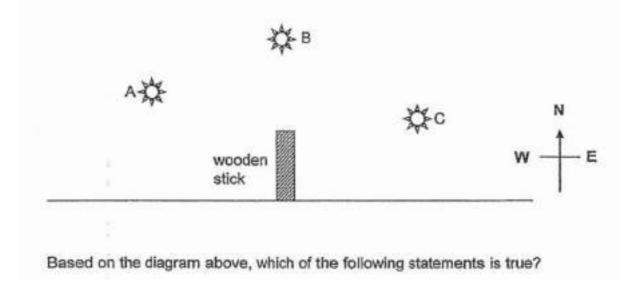


What would be observed when the glass is fully pushed into the water?

○ A)	What would happen to the water?		What would happen to the paper?
	The water would fill up the glass half	way.	. wet
○В)	What would happen to the water?	Wha	nat would happen to the paper?
	No water would enter the glass.	dry	1
(⊂) C)	What would happen to the water?		What would happen to the paper?
	The water would fill up the glass com	plete	ely. wet
O D)	What would happen to the water?	Wha	nat would happen to the paper?
	Some water would enter the glass.	dry	1

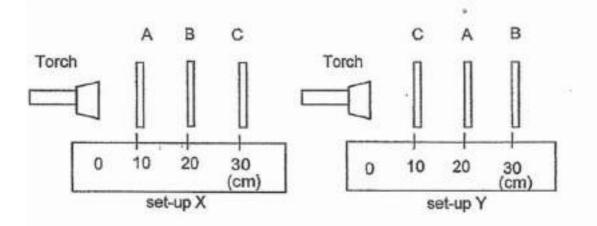
Question 17 of 52

Natalie wanted to find out how the position of the Sun affects the length of a shadow. She placed a wooden stick in the middle of a field and observed its shadow when the Sun was at positions A, B and C, during the day as shown in the diagram below.

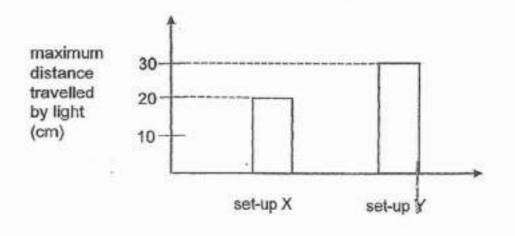


- A) The Sun shining from position B will form the longest shadow.
- **B)** The Sun shining from position C will form the shortest shadow.
- C) The length of the shadow increases as the Sun moves from position B to A.
- **D**) The length of the shadow decreases as the Sun moves from position C to B to A.

An experiment was conducted to investigate if light can pass through three sheets, A, B and C, made of different materials. The sheets were arranged into two set-ups, X and Y, as shown below.



The maximum distance at which light could be detected was measured and the results are shown in the graph below.



Which of the following correctly describes sheets A, B and C?

○ A) Does it allow light to pass through?

Α	В	С
yes	yes	no

B) Does it allow light to pass through?
A B C

no	no	yes	
			۰.

C) Does it allow light to pass through?

Α	В	С

yes no yes

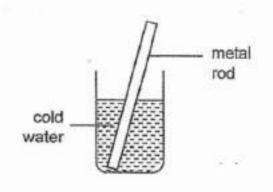
OD) Does it allow light to pass through?



Question 19 of 52

Primary 4 Science (Term 4) 2 pts

James placed a metal rod at room temperature, into a container of cold water as shown below. After some time, he could feel that the rod was cold.



Which of the following best explains why James's hands felt cold when he touched the rod?

- A) The rod lost heat to the water and his hand.
- **B)** The rod gained heat from the water and his hand.
- **C)** The rod gained heat from his hand and lost heat to the water.
- **D)** The rod gained heat from the water and lost heat to his hand.

Question 20 of 52

Lucas was given three rods, P, Q and R, made of different materials.



He placed the north pole of the bar magnet near A and then B of rods, P, Q and R, made of different materials. He recorded his results in the table below.

Rods	Observations seen when the North Pole of the magnet is brought near	
	A	В
P	moves towards the magnet	moves towards the magnet
Q	no movement	no movement
R	moves towards the magnet	moves away from the magnet

Which of the following statements is definitely true?

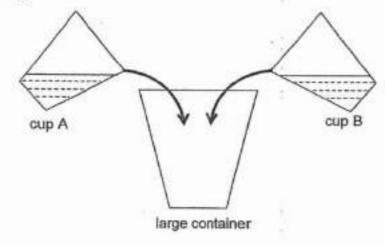
- A) Rod P is a magnet.
- **B**) Rod Q is made of steel.
- **C**) Rod R is made of aluminium.
- **D**) Rods P and R are made of magnetic materials.

Question 21 of 52

Raj had two cups of water of equal volume as shown below.



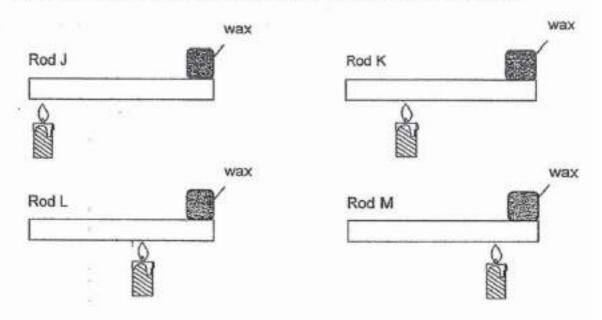
He poured all of the water in cup A and cup B into a large container. He then measured the temperature of the water in the large container immediately.



What could be the temperature of the water that Raj obtained in the large container?

- **A)** 20°C
- **○B)** 60°C
- **○**C) 80°C
- D) 100°C

All wanted to find out how well different materials, J, K, L and M, conduct heat. He placed the same amount of wax at the end of each rod of similar length and thickness. He then heated the rods at different positions as shown below.



All recorded the time taken for the wax on each metal rod to melt completely.

Rod	Time taken (min)
J	4
к	8
L	4
М	8

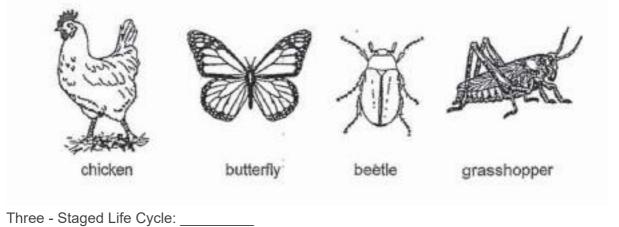
Based on the results above, which rods, J, L, K or M is classified under the correct heading?

(A ()		
U Aj	Best conductor of heat	Poorest conductor of heat
	Μ	J
○В)	Best conductor of heat	Poorest conductor of heat
	L	К
() C)	Best conductor of heat	Poorest conductor of heat
	J	К
() D	Best conductor of heat	Poorest conductor of heat
	J	Μ

Question 23 of 52

Write your answers clearly.

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



Question 24 of 52Primary 4 Science (Term 4)1 pt

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



chicken







beètle

grasshopper

Four - Staged Life Cycle:

Question 25 of 52

Jasmine observed and grouped some things as shown in the table below.

F	G
lion ant	stone cloth
mushroom	pencil

What is the suitable heading for Group F?

Question 26 of 52

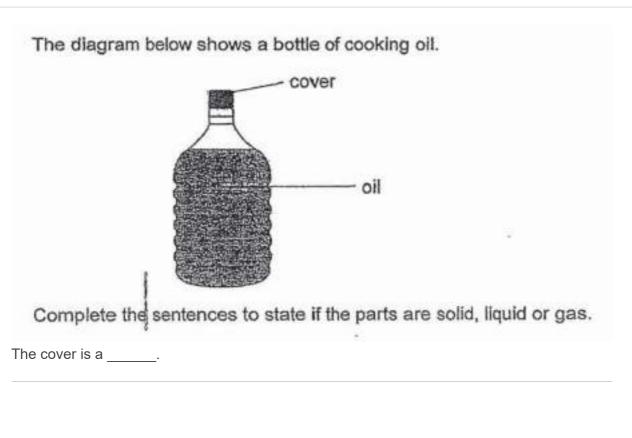
Primary 4 Science (Term 4) 1 pt

Jasmine observed and grouped some things as shown in the table below.

F	G
lion	stone
ant	cloth
mushroom	pencil

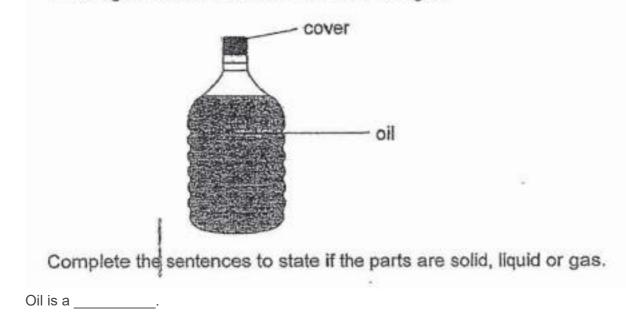
What is the suitable heading for Group G?

Question 27 of 52



Question 28 of 52Primary 4 Science (Term 4)1 pt

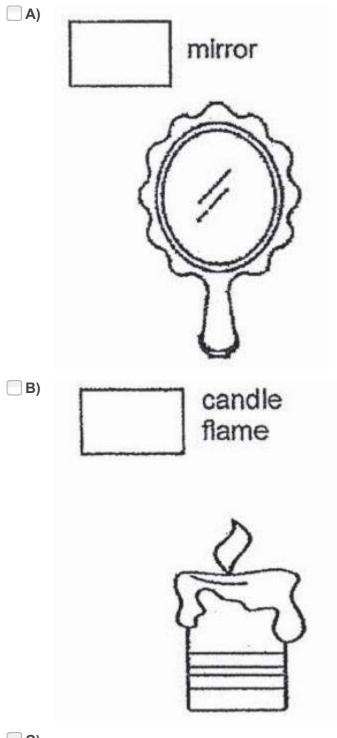
The diagram below shows a bottle of cooking oil.



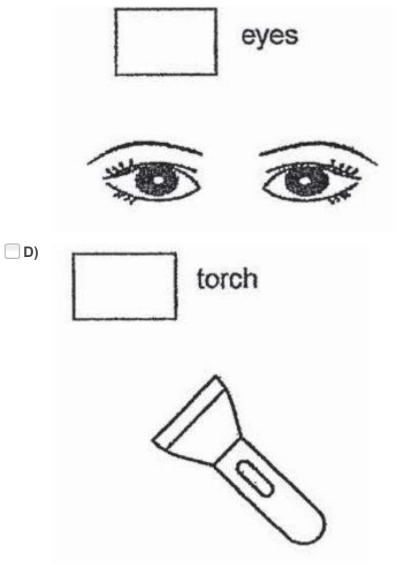
Question 29 of 52	Primary 4 Science (Term 4) 1 p
iron rod	magnet
Susan places a magnet near an iron	rod. The iron rod moves towards the magnet.
The magnet exerts a on the iron	rod.
Question 30 of 52	Primary 4 Science (Term 4) 1 p
iron rod	magnet
Susan places a magnet near an iron	rod. The iron rod moves towards the magnet.
Choose the correct word from the choices	s to fill in the blank below.
Susan's observation shows that iron is a _	material.
A) Flexible	
B) Magnetic	
C) Strong	

Question 31 of 52

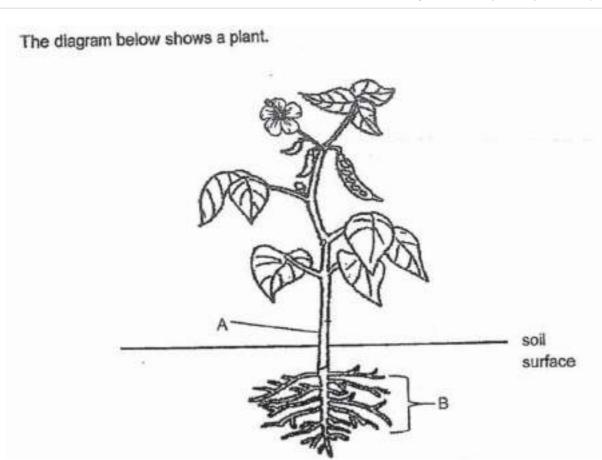
Look at the pictures below. Select the item(s) if the item is a source of light.



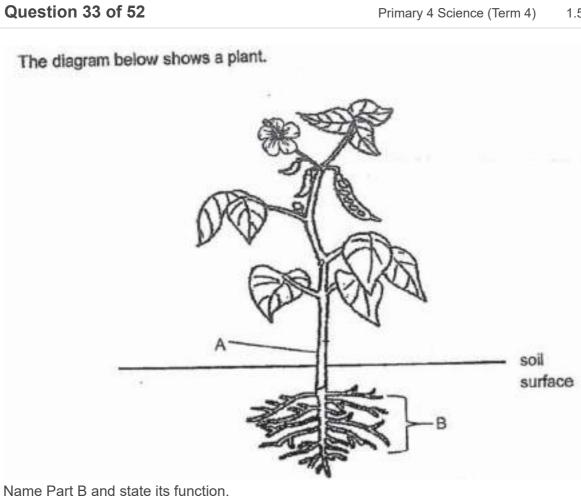
C)

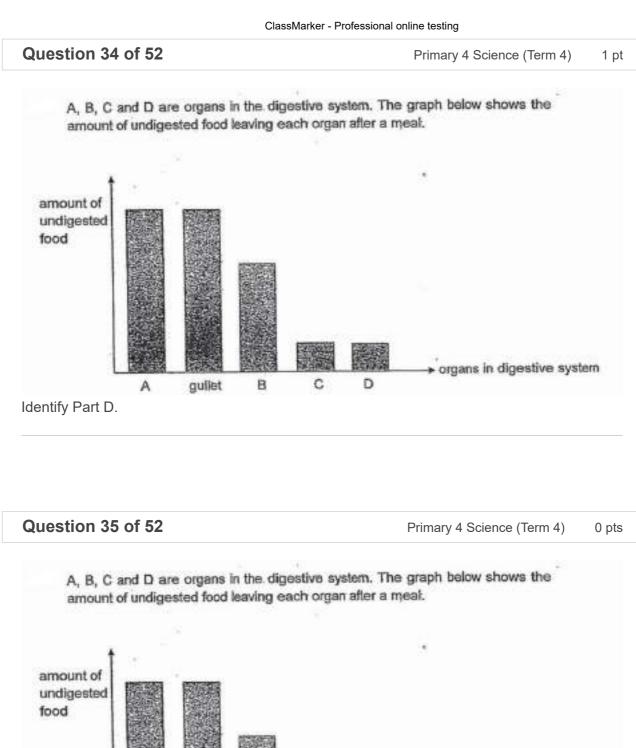


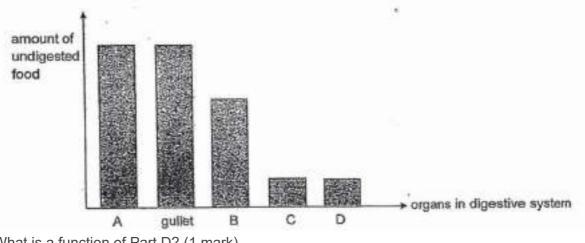
Question 32 of 52



Name Part A and state it's function.





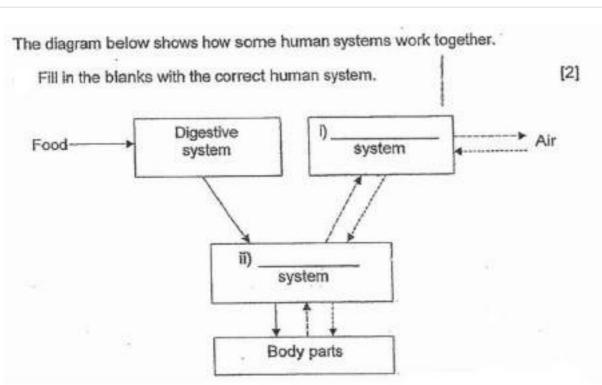


What is a function of Part D? (1 mark)

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

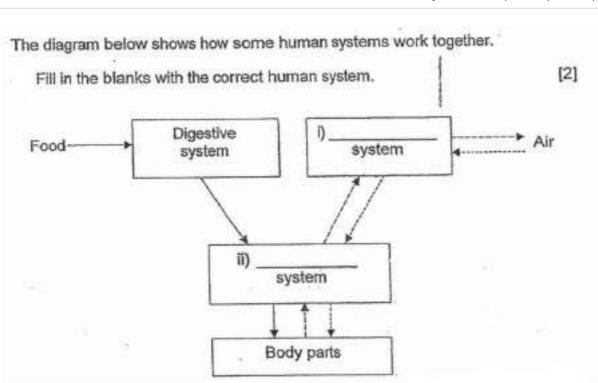
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

Question 36 of 52



Name part i).

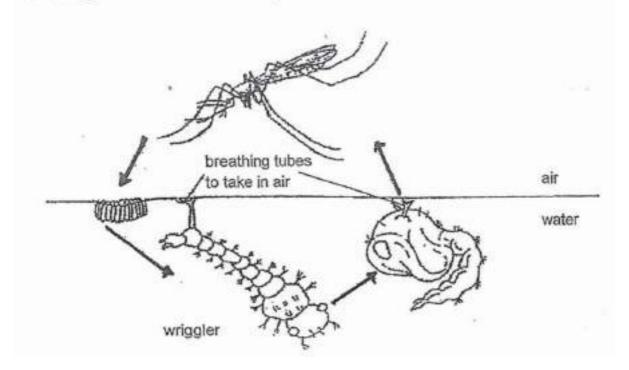
Question 37 of 52



Name part ii).

Question 38 of 52

The diagram below shows the life cycle of an Aedes mosquito.



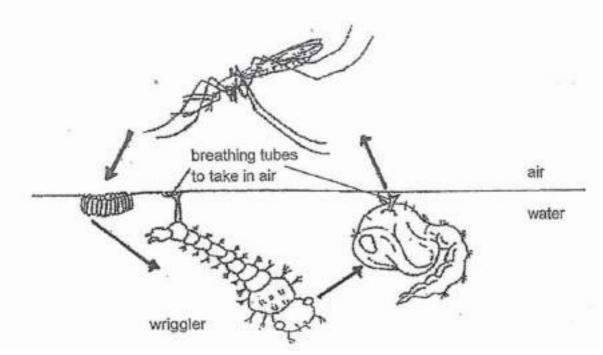
Based on the diagram above, how many stages are there in the life cycle of the Aedes mosquito? (1 mark)

This question 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.

Question 39 of 52

The diagram below shows the life cycle of an Aedes mosquito.



Dengue fever is caused by Aedes mosquitoes. During the rainy periods, more Singaporeans may contract dengue fever.

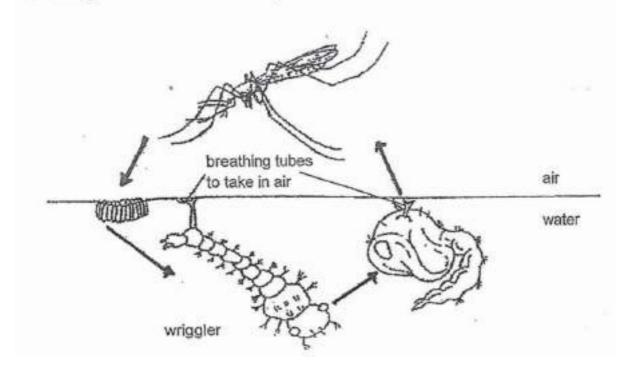
A teacher asks Amelia to suggest a way to stop mosquitoes from breeding in a fish pond. She suggested spraying oil on the surface.

Based on the diagram of the wriggler shown above, explain how Amelia's suggestion would kill the wrigglers. (1 mark)

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

Question 40 of 52

The diagram below shows the life cycle of an Aedes mosquito.



Dengue fever is caused by Aedes mosquitoes. During the rainy periods, more Singaporeans may contract dengue fever.

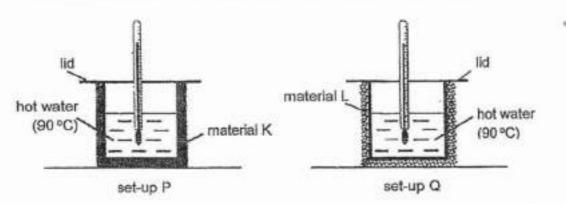
A teacher asks Amelia to suggest a way to stop mosquitoes from breeding in a fish pond. She suggested spraying oil on the surface.

Suggest another way to stop the breeding of mosquitoes, without harming the living things in the pond. (1 mark)

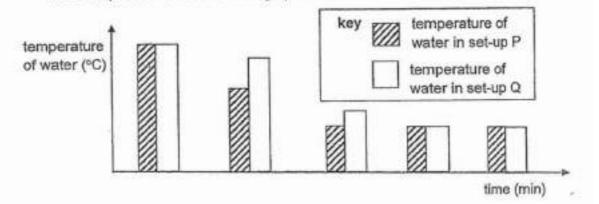
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Question 41 of 52

Endy conducted an experiment using set-ups P and Q as shown below. He wrapped two identical glass beakers with materials K and L. He filled both beakers with the same volume of hot water that are of the same temperature.



Endy measured the temperatures of the water in both set-ups over a period of time and plotted his results in the graph below.

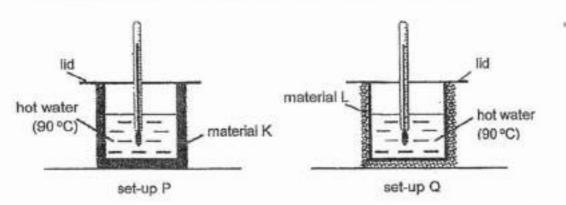


Based on the graph for set-up P, state the relationship between the temperature of water and time. (1 mark)

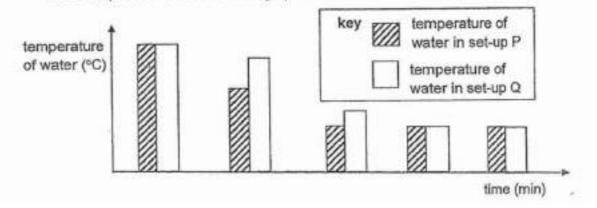
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Question 42 of 52

Endy conducted an experiment using set-ups P and Q as shown below. He wrapped two identical glass beakers with materials K and L. He filled both beakers with the same volume of hot water that are of the same temperature.



Endy measured the temperatures of the water in both set-ups over a period of time and plotted his results in the graph below.

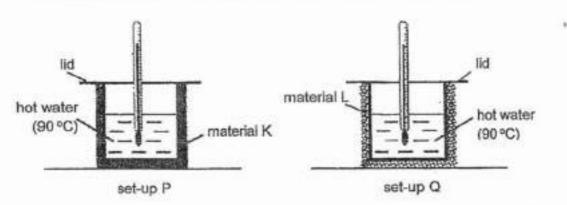


What must Endy do to ensure his results are reliable? (1 mark)

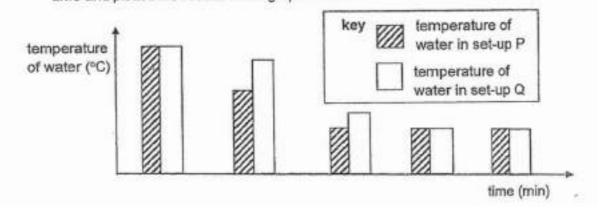
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Question 43 of 52

Endy conducted an experiment using set-ups P and Q as shown below. He wrapped two identical glass beakers with materials K and L. He filled both beakers with the same volume of hot water that are of the same temperature.



Endy measured the temperatures of the water in both set-ups over a period of time and plotted his results in the graph below.

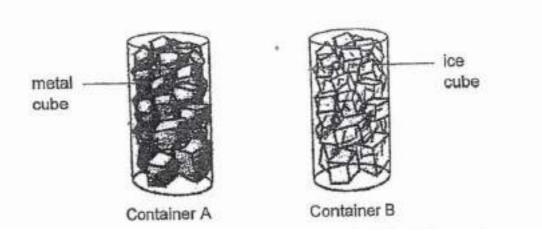


Which materials K or L, would be more suitable to keep a tub of ice cream frozen for a longer period of time? Explain why. (2 marks)

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

Question 44 of 52

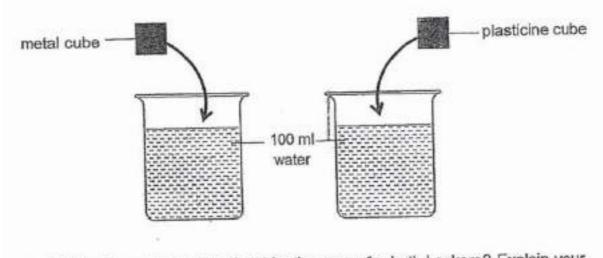
Containers A and B were completely filled to the brim with cubes made of different materials but of identical size.



After 15 minutes, more cubes could be added to Container B but not container A. Explain why. (2 marks)

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

A metal cube weighing 100 g and a plasticine cube weighing 50 g of similar sizes were gently placed into two separate beakers as shown below.

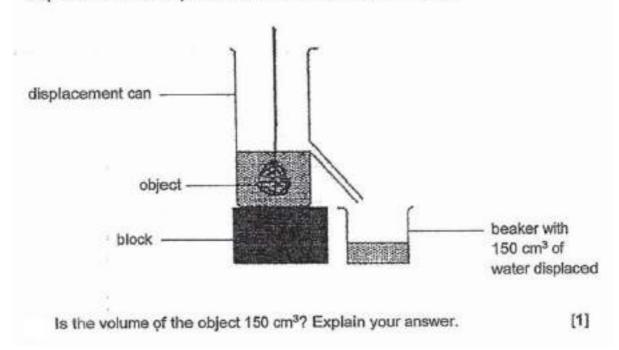


Will the increase in water level be the same for both beakers? Explain your answer. [1]

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

Question 46 of 52

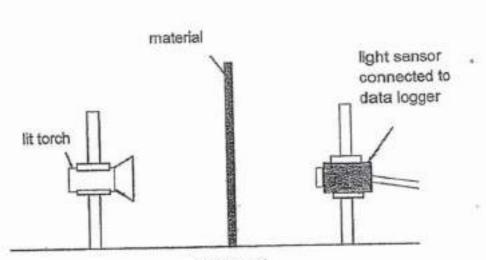
The diagram shows an object after it is dropped into a displacement can. Water displaced from the displacement can and flowed into a beaker.



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

Question 47 of 52

Mr Lee conducted the experiment below in a dark room.



position X

He placed materials, P, Q and R, of equal thickness at position X. He recorded the amount of light detected by the light sensor. He observed that when no materials was placed at position X, the amount of light detected by the light sensor was 5000 units.

His results are shown below.

Materials	Amount of light detected (units)
P	5000
Q	0
R	900

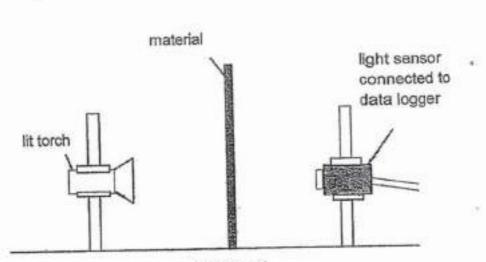
Is the experiment a fair test? Explain why. (1 mark)

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

Question 48 of 52

÷

Mr Lee conducted the experiment below in a dark room.



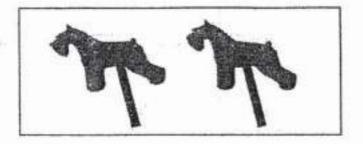
position X

He placed materials, P, Q and R, of equal thickness at position X. He recorded the amount of light detected by the light sensor. He observed that when no materials was placed at position X, the amount of light detected by the light sensor was 5000 units.

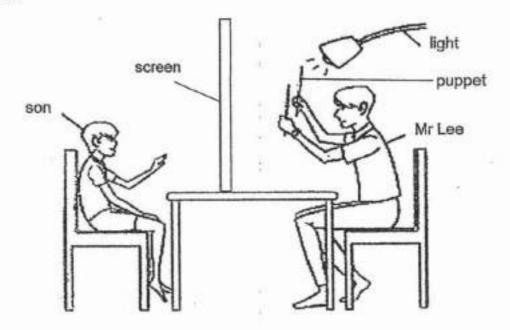
His results are shown below.

Materials	Amount of light detected (units)
P	5000
Q	0
R	900

Mr Lee put up a puppet show and the shadows cast at the screen are as shown below.



His son saw the shadows of the puppet from where he was seated as shown below.

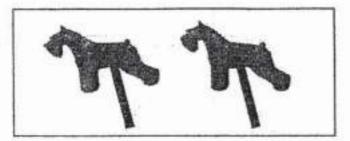


Based on the results of Mr Lee's experiment, which materials, P, Q or R, is most suitable to be used as a screen? Explain your answer. (2 marks)

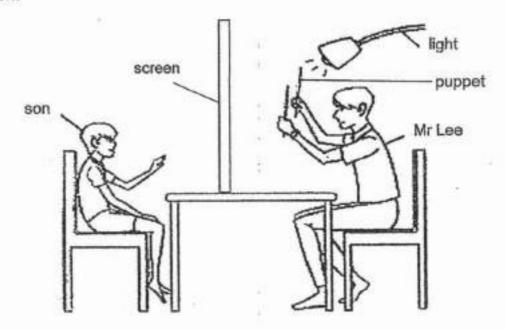
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Question 49 of 52

Mr Lee put up a puppet show and the shadows cast at the screen are as shown below.



His son saw the shadows of the puppet from where he was seated as shown below.

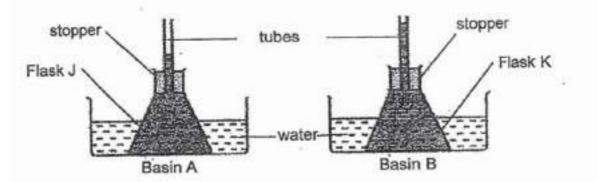


What must Mr Lee do to the position of the puppets if he wants to create a smaller shadow on the screen? (1 mark)

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

Question 50 of 52

Megan filled two identical flasks, K and J, with the same amount of similar coloured water. She placed them in two basins, A and B, with water at different temperatures as shown below. She observed that the water levels in both tubes rose.

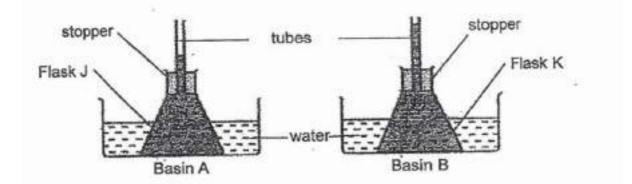


Compare the temperatures of the water in basins A and B. (1 mark)

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

Question 51 of 52

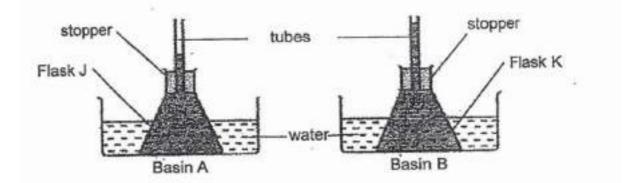
Megan filled two identical flasks, K and J, with the same amount of similar coloured water. She placed them in two basins, A and B, with water at different temperatures as shown below. She observed that the water levels in both tubes rose.



Explain the difference in the water levels observed in Flasks J and K. (2 marks)

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

Megan filled two identical flasks, K and J, with the same amount of similar coloured water. She placed them in two basins, A and B, with water at different temperatures as shown below. She observed that the water levels in both tubes rose.



Before the start of the experiment, Megan measured the mass of Flask K and its contents. Immediately after she saw the water level rise, the mass was recorded again.

Compare the mass of Flask K and its contents before and immediately after the experiment. (1 mark)

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