Test:	Primary 4 Science (Term 4) - Henry	/ Park (2020)
Points:	76 points	
Name:		Score:
Date:		-
Signature:		-

Select multiple choice answers with a cross or tick:

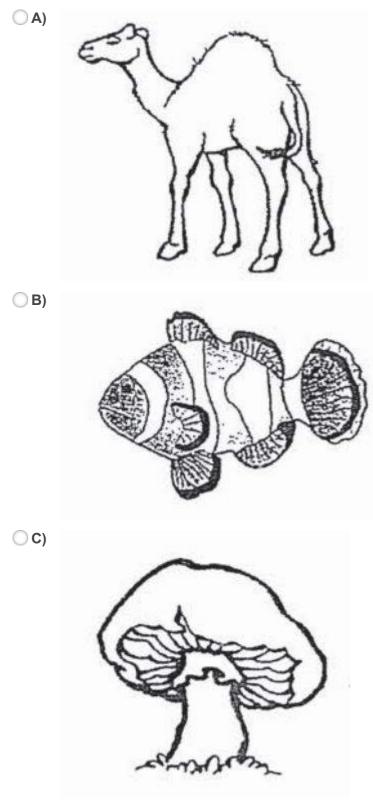
Only select one answer

Can select multiple answers

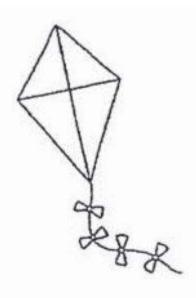
### Question 1 of 67

# For each question, four options are given. One of them is the correct answer. Make your choice and choose the correct answer below. (56 marks)

Which one of the following is not a living thing?



OD)



### Question 2 of 67

Primary 4 Science (Term 4) 2 pts

A snail hides itself in its shell when touched.



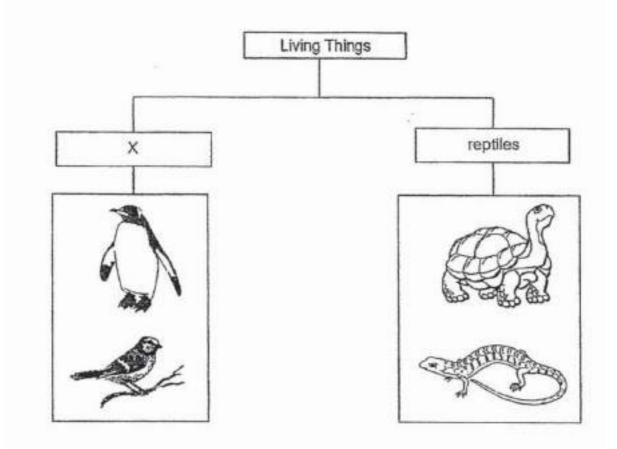
This shows that the snail is a living thing because it can \_\_\_\_\_

- **A**) grow
- OB) move
- OC) respond
- OD) reproduce

Question 3 of 67

### Primary 4

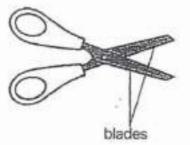
The table below shows how some living things can be grouped.



Which one of the following is the most suitable heading for group X?

- **A**) birds
- **B**) insects
- ○C) animals
- **D**) mammals

The diagram shows a pair of scissors.

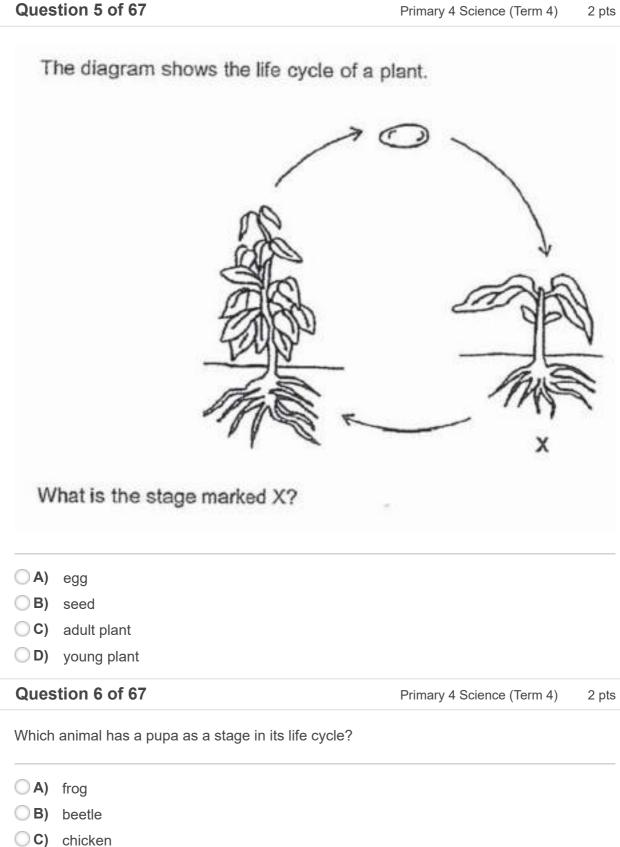


Metal is used to make the blades of the scissors because metal

○ A) is strong

Question 4 of 67

- B) is not waterproof
- **C**) bends easily without breaking
- OD) allows some light to pass through



**D**) cockroach

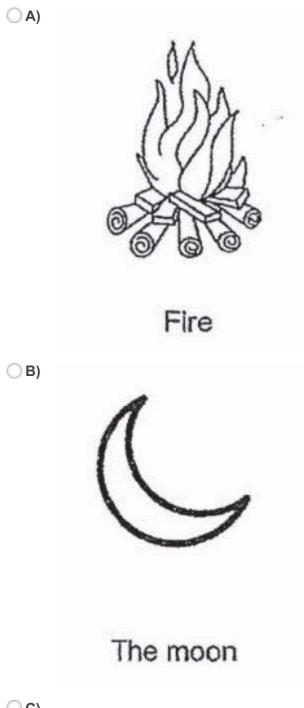
# Question 7 of 67

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

- A) They can be seen.
- **B)** They occupy space.
- **C**) They have definite shapes.
- **D**) They have definite volumes.

# Question 8 of 67

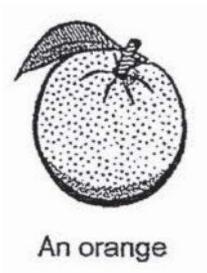
Which one of the following is a source of light?





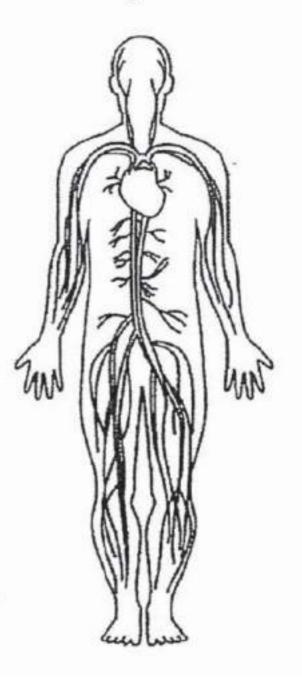






# Question 9 of 67

# Which organ system is shown in the diagram?



- A) skeletal system
- **B**) digestive system
- C) muscular system
- **D**) circulatory system

### Question 10 of 67

Which one of the following is the best conductor of heat?

- A) A glass rod
- **B**) A metal rod
- OC) A plastic rod
- **D**) A wooden rod

Question 11 of 67

Primary 4 Science (Term 4) 2 pts

The table shows Tanya's answers to three questions about matter.

	Question	Answer
A	Does it have mass?	Yes
в	Does it occupy space?	No
с	Can it exist as a solid, a liquid or a gas?	Yes

Which of the questions were answered correctly?

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

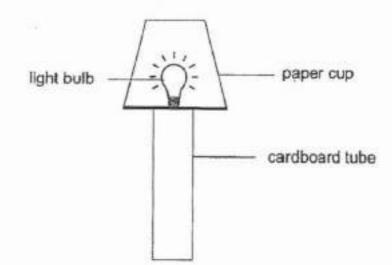
Mrs Dill hung her clothes out to dry in her backyard on a sunny day.



What is the main source of heat that dries the clothes?

- **A)** Air
- 🔵 **B)** Sun
- OC) Bird
- OD) Plants

Ken made a model lighthouse using a cardboard tube, a paper cup, a lit light bulb, some wires and a battery.



Ken wanted to make his model lighthouse shine more brightly.

Which one of the following should Ken use to replace the paper cup with?

- A) steel cup
- **B**) ceramic cup
- **C**) styrofoam cup
- **D**) clear plastic cup

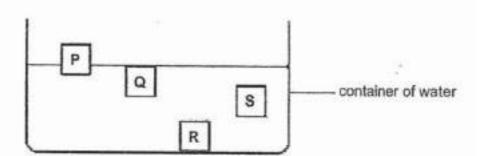
# Question 14 of 67

Which of the following are not characteristics of insects?

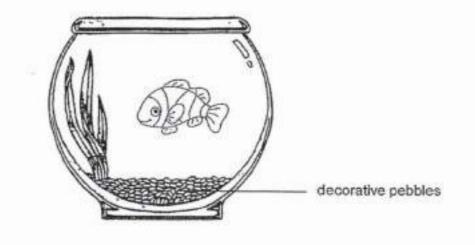
- A 3 body parts
- B 3 pairs of legs
- C give birth to young alive
- D outer covering of feathers
- **A**) A and B only
- **B**) B and C only
- C) C and D only
- OD) A, B and D only

Question 15 of 67

Travis placed four similar cubes made of different materials, P, Q, R and S, in a container of water. The diagram shows his observation.



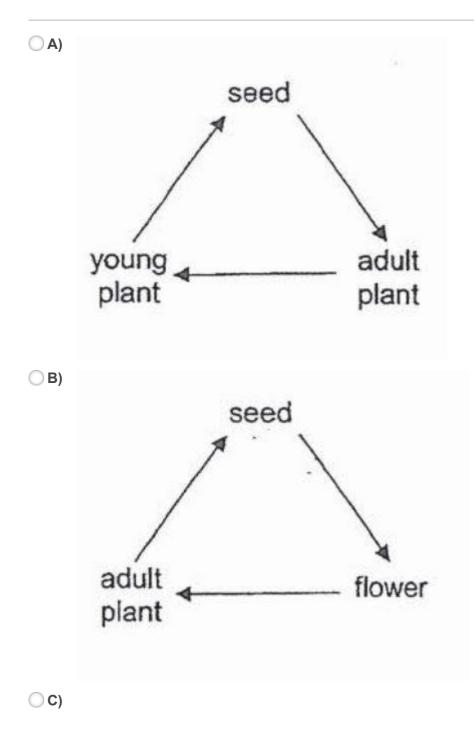
The diagram below shows Travis' fish bowl.

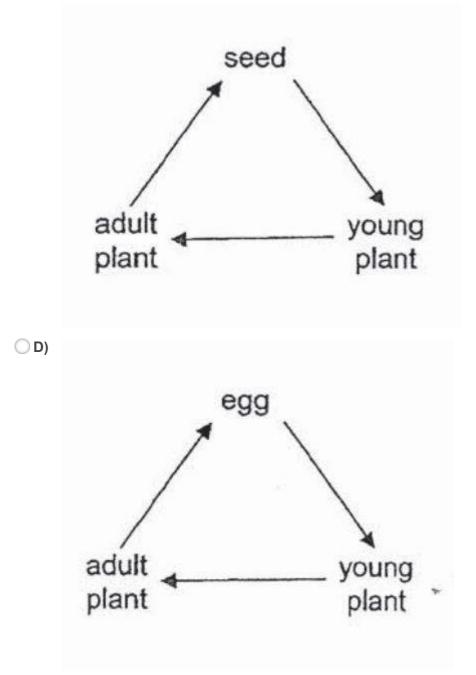


He wanted to make some decorative pebbles to put in his fish bowl. Which material, P, Q, R or S, would be the best for Travis to use?

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

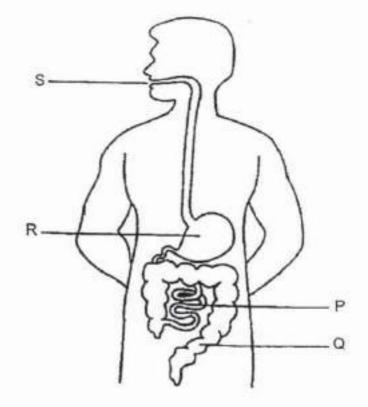
Which of the following shows the correct stages in the life cycle of a flowering plant?





Question 17 of 67

The diagram shows the human digestive system.

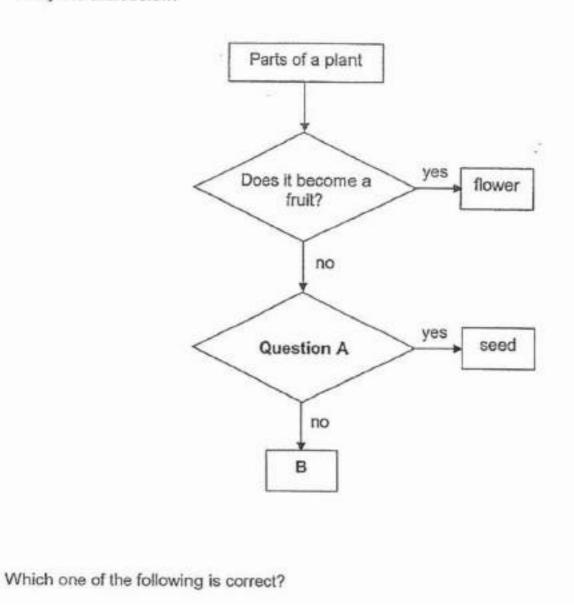


Which of the following correctly identifies the parts of the digestive system where digestion starts and absorption of water from undigested food?

○ A)	Digestion starts here	Absorption of water from undigested food
	R	Ρ
ОВ)	Digestion starts here	Absorption of water from undigested food
	R	Q
○ C)	Digestion starts here	Absorption of water from undigested food
	S	Р
O D)	Digestion starts here	Absorption of water from undigested food
	S	Q

Study the chart below.

Question 18 of 67

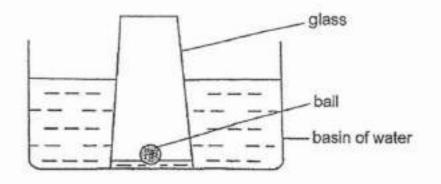


○ A)	Question A	В	]		
	Does it hold the plant upright?	fruit			
ОВ)	B) Question A		В		
	Does it grow into a flowering pl	ant?	spo	re	
◯ C)	Question A			В	
	Does it grow into a non-floweri	ng pla	ant?	lea	af
() D)	Question A			В	
	Does it grow into a non-floweri	ng pla	ant?	sp	ore

Question 19 of 67

James placed an empty glass and a small ball into a basin of water as shown in the diagram below. When the glass touched the bottom of the basin, he observed that the water level inside the glass was lower than the water level in the basin.

However, the ball still floated on the water as shown below.



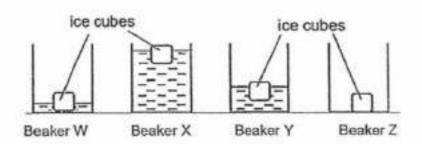
Which of the following explains the difference in the water level inside and outside the glass?

- **A)** The ball in the glass is light.
- **B**) The air in the glass occupied space.
- C) The ball pushed the water out from the glass.
- **D**) The air in the glass has a greater mass than the water.

Question 20 of 67 Primary 4 Science (Term 4) 2 pts Darius had a float as shown in the diagram below. When he blew more air into the float, he observed that the size of the float remained the same. Which one of the following best explains his observation? A) Air has mass. B) Air takes up space. **C**) Air can be compressed. **D**) Air has a definite shape. Question 21 of 67 Primary 4 Science (Term 4) 2 pts Lucas placed two plates in an air-conditioned room of 23°C and went off to play. Both plates were of similar size but made of different materials. Plate A Plate B When Lucas returned and touched the plates, plate A felt colder to the touch than plate B. Which one of the following is most likely the reason why Lucas felt that plate A was colder than plate B? A) Plate A lost more heat to Lucas' hand than plate B.

- **B**) Plate A lost more heat to the surroundings than plate B.
- C) Plate A gained more heat from Lucas' hand than plate B.
- **D**) Plate A gained more heat from the surroundings than plate B.

Jane set up an experiment as shown below. She placed ice cubes of similar size into identical beakers, W, X, Y and Z.



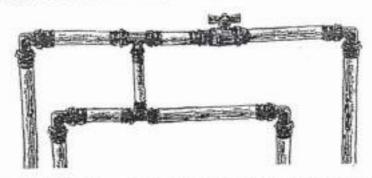
Beakers W, X and Y contained different amounts of water measuring 75°C.

Based on the set-up, which ice cube in the beakers above would take the longest time to melt completely?

- **A**) Beaker W
- **B**) Beaker X
- **C**) Beaker Y
- **D**) Beaker Z

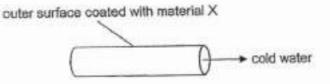
## Question 23 of 67

Wally observed that most of the water pipes at home are made of copper, a type of metal. These pipes transport cold water to the taps in the house.



He suggested to his dad that the water pipes be coated with material X, a poor conductor of heat.

The diagram shows which part of the water pipe will be coated with material X.

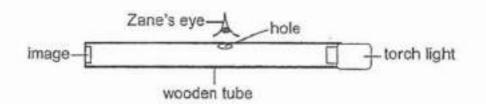


Part of the water pipe

Which of the following statements correctly describe what will happen when the pipes are coated with material X?

- A The surrounding air will lose heat quickly to the cold water.
- B The cold water will gain heat slowly from the surrounding air.
- C The water pipes will not gain heat from the surrounding air quickly.
- **A**) A and B only
- B) B and C only
- C) A and C only
- **D**) A, B and C

Zane created a toy using a wooden tube, a torch light fixed at one end and an image at the other end of the tube. He made a hole at the centre of the wooden tube to look at the image.

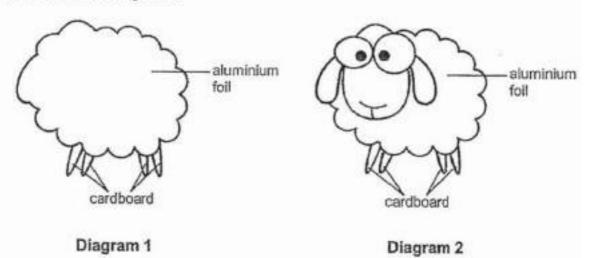


When he switched on the torch light, he could not see the image.

Which of the following could be the reason why Zane could not see the image?

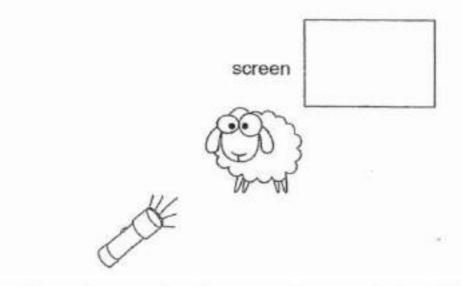
- A) Light is a form of energy.
- **B)** There was no source of light in the tube.
- **C)** The wooden tube does not allow any light to pass through.
- **D**) Light reflected off the image was not reflected into Zane's eye.

Karen created a sheep puppet using some pieces of cardboard and aluminium foil, as shown in diagram 1.



She then drew in the face and ears of the sheep using a marker, as shown in diagram 2.

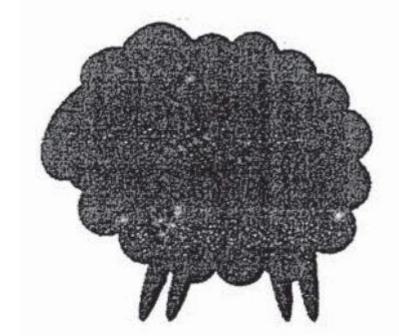
The diagram below shows Karen's set-up of the sheep puppet.



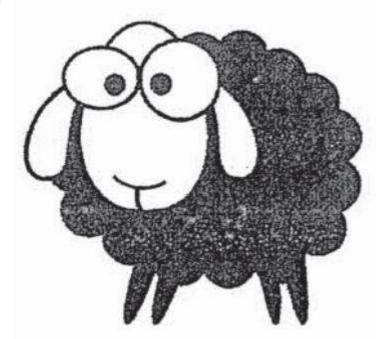
When Karen shone a torch on her puppet, she saw a shadow of the puppet on the wall.

Which one of the following is the shadow that Karen saw on the wall?

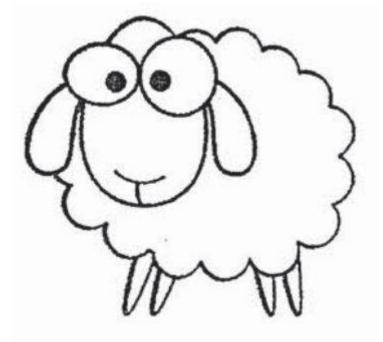
O A)



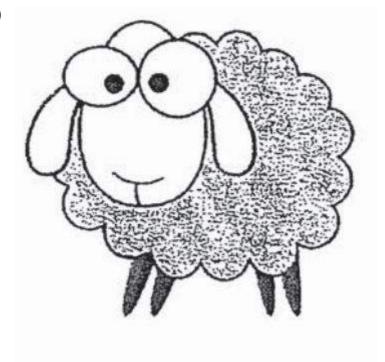
ОВ)



() C)



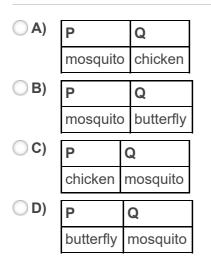
() D)



Gabriel studied two animals, P and Q. At the end of his study, he recorded his observations as shown in the table below.

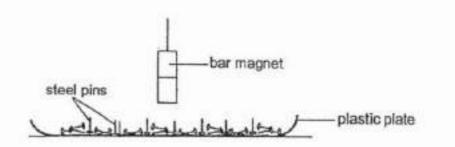
Observation	Anii	nals	
<b>U</b>	Р	Q	
has 6 legs	No	Yes	
reproduce by laying eggs	Yes	Yes	
the young lives in the water	No	Yes	

Which one of the following correctly represents animals, P and Q?



Question 27 of 67

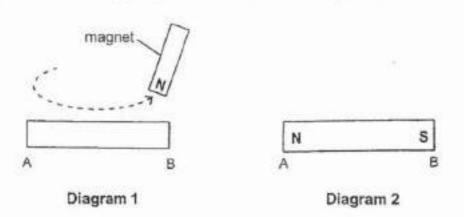
A bar magnet was placed near a plastic plate of steel pins. It was observed that none of the pins were attracted to the bar magnet.



Which one of the following is a possible reason for the observation?

- **A)** The bar magnet repelled the steel pins.
- **B**) The pins were attracted to the plastic plate.
- **C)** The magnet was too weak to attract any pins.
- **D)** The pins were not made of a magnetic material.

A steel bar AB was magnetised using the stroking method as shown in Diagram 1. Diagram 2 shows the magnetic poles of AB after it was magnetised.



Steel bar CD was magnetised as shown in Diagram 3.

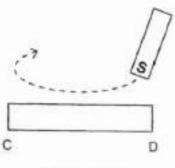
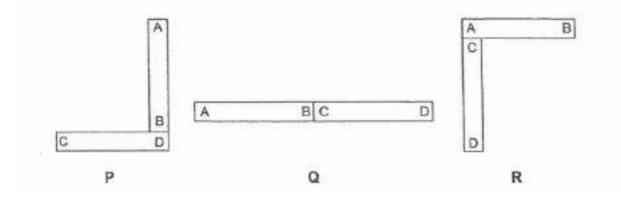


Diagram 3

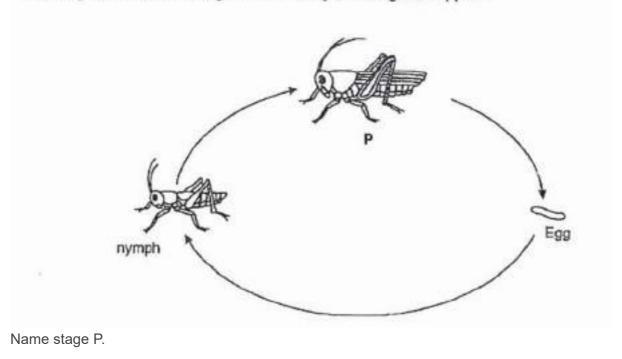
Which of the following diagrams (P, Q or R) do <u>not</u> show a possible arrangement of the two bars, AB and CD, after they were magnetised?



- **A**) P and Q only
- B) P and R only
- **C**) Q and R only
- **D**) P, Q and R

Question 29 of 67

The diagram shows the stages in the life cycle of a grasshopper.



Question 30 of 67

Primary 4 Science (Term 4) 1 pt

The diagram shows the stages in the life cycle of a grasshopper.

Name one other animal that has a similar life cycle as a grasshopper.

Question 31 of 67

magnet A

magnet B

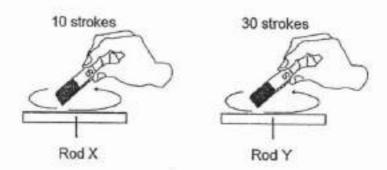
Alice placed two ring magnets, A and B, through a holder as shown below. holder magnet A magnet B The holder was made of plastic and was not attracted to the magnets. Plastic is a \_\_\_\_\_ material. Question 32 of 67 Primary 4 Science (Term 4) 1 pt Alice placed two ring magnets, A and B, through a holder as shown below. holder .

Why was magnet A floating above magnet B?

Magnet B was \_\_\_\_\_ magnet A.

[1]

Alice stroked two similar iron rods X and Y with the same magnet as shown below.



Both rods became magnets and were used to attract similar pins.

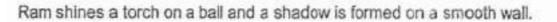
c) Circle the correct answer below.

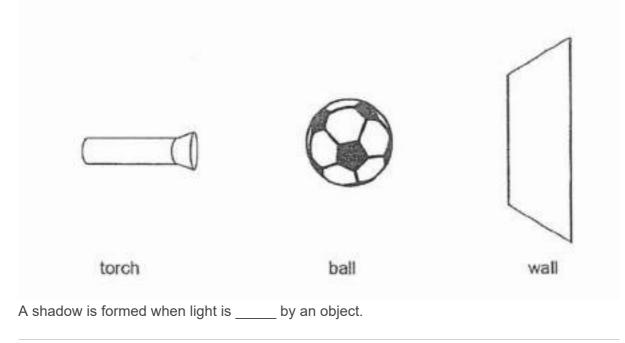
Rod Y attracted (less pins than / the same number of pins as / more pins than ) rod X.

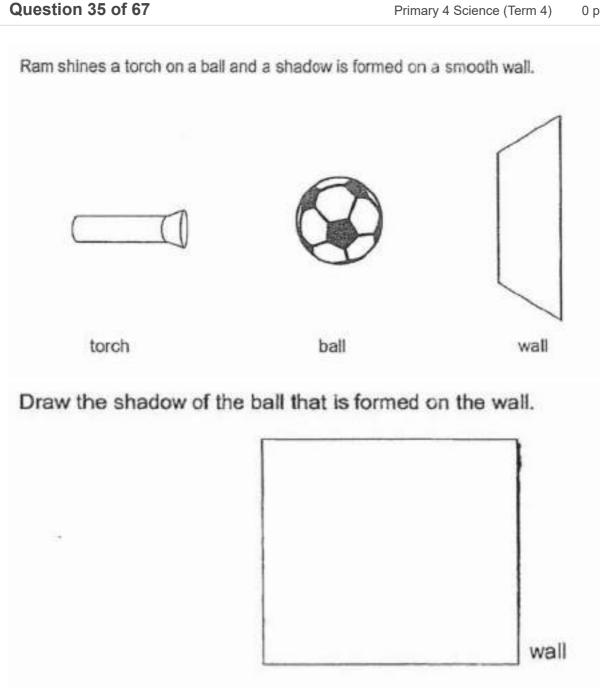
Choose the correct answer below.

- **A**) less pins than
- **B**) the same number of pins as
- OC) more pins than

Question 34 of 67







#### (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 67			Primary 4 Science (Term 4)			
Match the functions to the organ systems.						
1. [ ]	supports our body and gives it shape	A.	Muscular System			
2. [ ]	helps different parts of the body to move	В.	Circulatory System			
3.[]	takes air into and out of the body	C.	Skeletal System			
4. [ ]	transports digested food, water and oxygen to all parts of the body	D.	None			

### Question 37 of 67

Primary 4 Science (Term 4) 0 pts

State what digestion is. (1 mark)

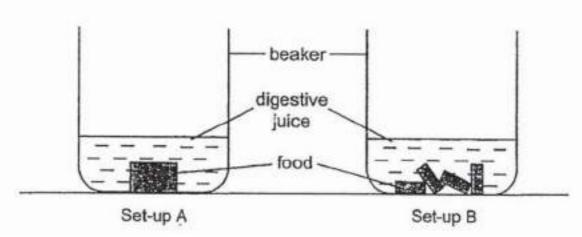
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

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 38 of 67

Aurelia wanted to find out if cutting up food into smaller pieces helps the food to digest completely faster.

The diagram shows her experimental set-ups, A and B.



Variable: Amount of digestive juice

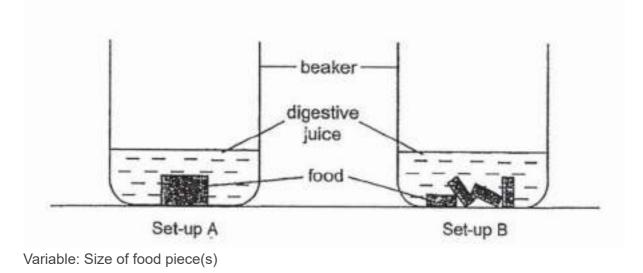
**A**) Keep the same

**B**) Change

Question 39 of 67

Aurelia wanted to find out if cutting up food into smaller pieces helps the food to digest completely faster.

The diagram shows her experimental set-ups, A and B.



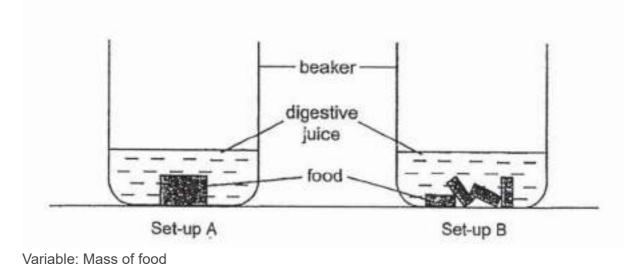
**A**) Keep the same

OB) Change

### Question 40 of 67

Aurelia wanted to find out if cutting up food into smaller pieces helps the food to digest completely faster.

The diagram shows her experimental set-ups, A and B.



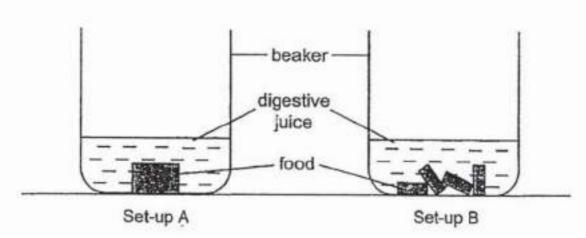
**A**) Keep the same

**B**) Change

Question 41 of 67

Aurelia wanted to find out if cutting up food into smaller pieces helps the food to digest completely faster.

The diagram shows her experimental set-ups, A and B.



Variable: Temperature of digestive juice

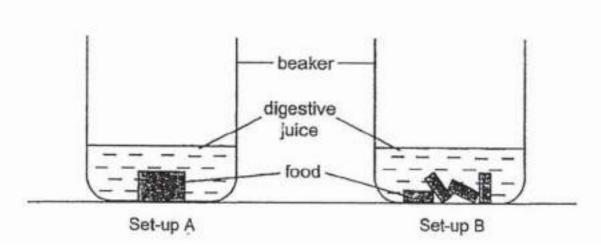
**A**) Keep the same

**B**) Change

Question 42 of 67

Aurelia wanted to find out if cutting up food into smaller pieces helps the food to digest completely faster.

The diagram shows her experimental set-ups, A and B.

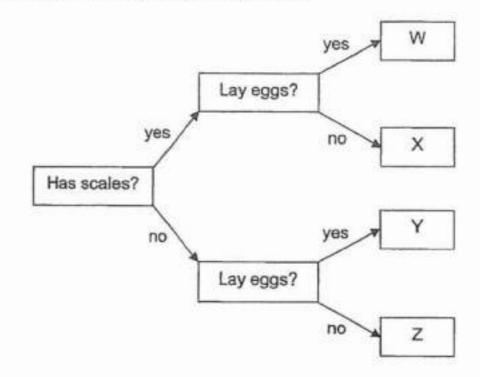


Based on the results of her experiment, Aurelia concluded that cutting up food into smaller pieces helps the food to digest completely faster.

What observation would show that her conclusion is correct? (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.

Animals W, X, Y and Z are classified as shown.

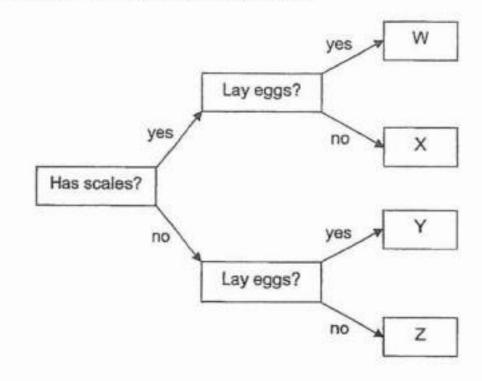


Based on the classification above, describe the characteristics of animal W. (1 mark)

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 44 of 67

# Animals W, X, Y and Z are classified as shown.



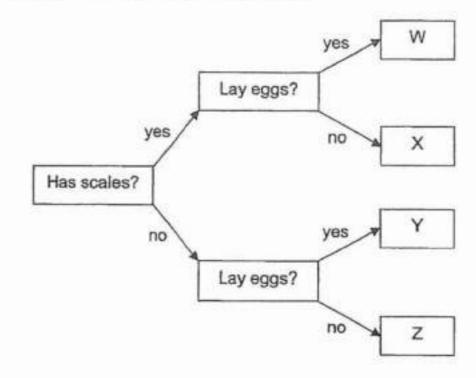
Study the picture shown below.

Fill in the blank with the letters, W, X, Y or Z from the diagram shown above.

gold fish
Animal

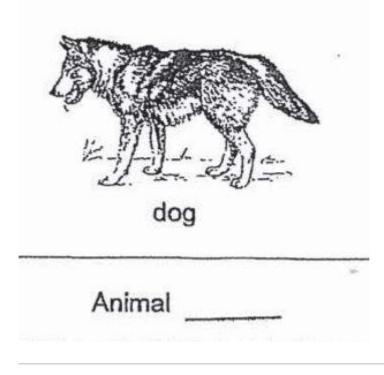
### Question 45 of 67

Animals W, X, Y and Z are classified as shown.



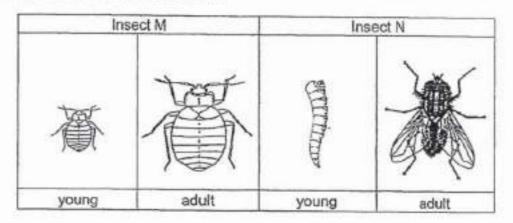
Study the picture shown below.

Fill in the blank with the letters, W, X, Y or Z from the diagram shown above.

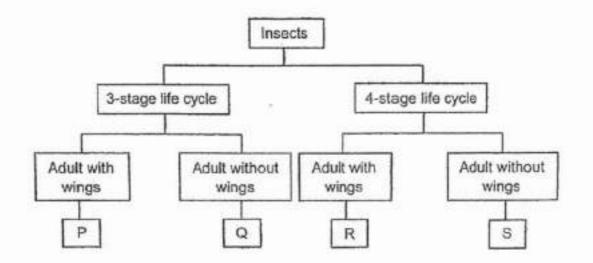


### Question 46 of 67

The diagram shows insects M and N.



Study the classification chart below.

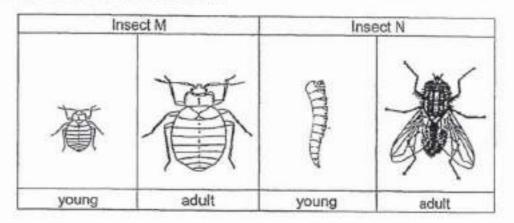


Which group P, Q, R or S do insect M belong to?

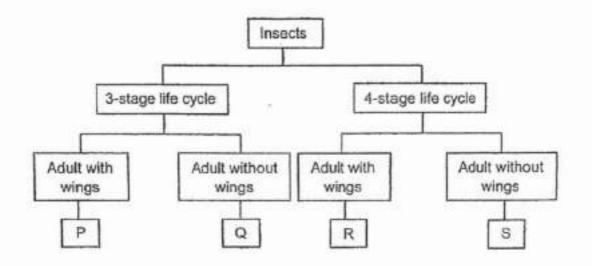
Insect M - Group \_\_\_\_\_

# Question 47 of 67

The diagram shows insects M and N.



Study the classification chart below.



Which group P, Q, R or S do insect N belong to?

### Question 48 of 67

Jack grew some seeds of a plant in four pots in his room.

In each pot, he placed 3 seeds. The conditions and results are shown below.

Γ	Cond	lition	Result	observed in a	each pot
Pot	Soil Light		Appearance of the 3 seeds on Day 6		
A	dry	absent	G	Q	C
в	wet	absent	Putter	CAR.	Att of the second secon
с	dry	present	S	G	C
D	wet -	present	Citte	Citte	C

Based only on the results given, state the condition that did not affect the growth of the seeds. (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 49 of 67

Jack grew some seeds of a plant in four pots in his room.

In each pot, he placed 3 seeds. The conditions and results are shown below.

	Con	dition	Result	observed in a	each pot	
Pot	Soil	Light	Light Appearance of the 3 seed		ls on Day 6	
A	dry	absent	G	Q	G	
в	wet	absent	NAK	CAR.	Cutter of the second se	
с	dıy	present	S	G	G	
D	wet -	present	C Alt	C Alt	CAR	

Using the results given, explain your answer in the previous question. (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.

Jack grew some seeds of a plant in four pots in his room.

In each pot, he placed 3 seeds. The conditions and results are shown below.

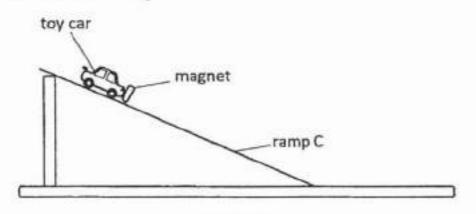
	Con	dition	Result	observed in a	each pot
Pot	Soil Light		Appearance of the 3 seeds on Day 6		
A	dry	absent	G	Q	G
в	wet	absent	NHK	CAR.	Cutter of the second se
с	dry	present	S	G	G
D	wet -	present	Citte	Citte	C

Jack wanted to find out if the seeds needed water to grow. Which 2 pots should he compare to make a conclusion? 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 51 of 67

May released a toy car from the top of ramp C. The toy car had a magnet attached to the front of it, as shown in diagram 1.





May observed that the car rolled down ramp C, when it was released.

Then, May placed object T at a fixed point at the bottom of the ramp C, as shown in diagram 2.

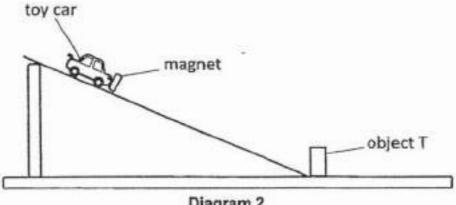


Diagram 2

Diagram 3 shows what happened when the toy car was released from the top.

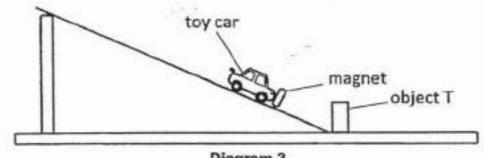


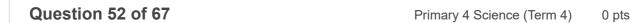
Diagram 3

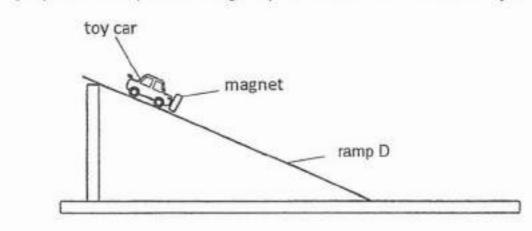
The toy car rolled down but stopped a distance away from object T as shown in diagram 3.

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.

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.





May repeated the experiment using ramp D as shown. She did not use object T.

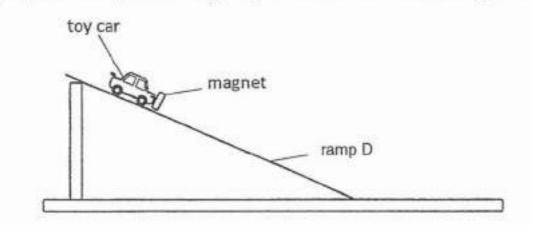
When May released the toy car from the same height, she observed that it did not move at all.

Suggest a possible reason for her observation. (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 53 of 67

May repeated the experiment using ramp D as shown. She did not use object T.

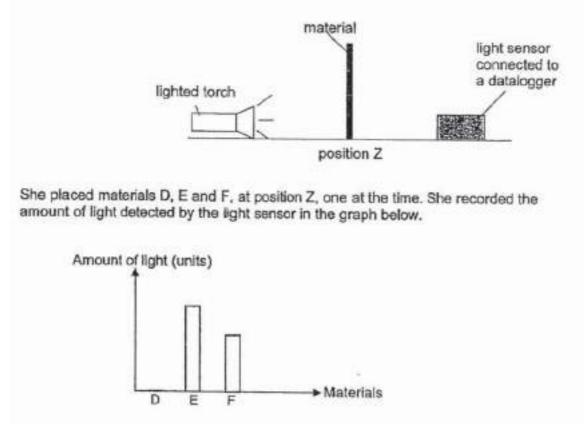


When May released the toy car from the same height, she observed that it did not move at all.

Based on the observation, name one material that ramp D could be made of. (1 mark)

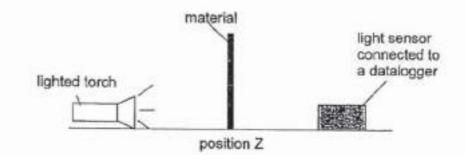
Question 54 of 67

Mrs Yan conducted the experiment, shown below, in a dark room. She wanted to find out how much light is blocked by materials, D, E and F.

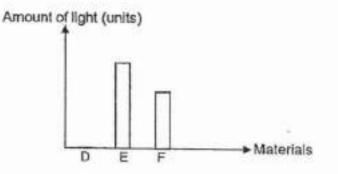


Based on the graph, which material, D, E or F allows no light to pass through? (1 mark)

Mrs Yan conducted the experiment, shown below, in a dark room. She wanted to find out how much light is blocked by materials, D, E and F.



She placed materials D, E and F, at position Z, one at the time. She recorded the amount of light detected by the light sensor in the graph below.



Mrs Yan teaches at a school for the hearing impaired. She designed a mask that has a special part Q that would allow the children to observe her lip movements clearly and understand what she is saying.



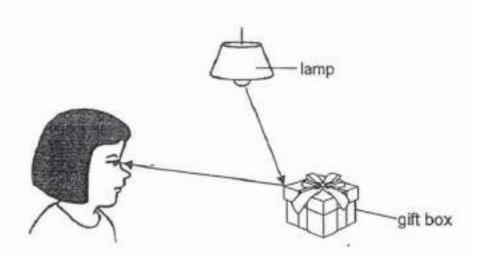
Based on the information given, which one of the materials, D, E or F, should she use to make part Q?

[2]

Using information given, explain your answer.

Question 56 of 67

Pam is looking at a gift box as shown.

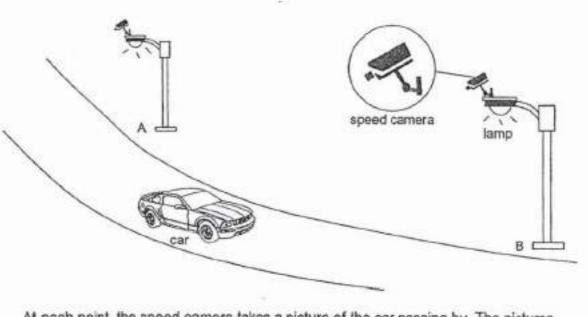


Based on the diagram, describe how Pam is able to see the gift box. (1 mark)

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 57 of 67

ABC Company installs speed cameras along roads. The diagram shows speed cameras on the top of lamp posts located at two points, A and B, along a road.



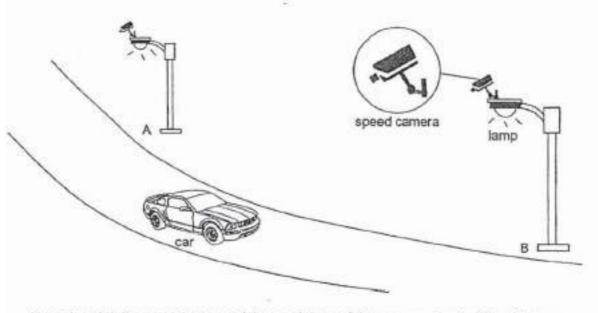
At each point, the speed camera takes a picture of the car passing by. The pictures help to calculate how fast the car had travelled from point A to point B. The pictures will only be clear if the surrounding light is very bright.

During the day, the lamps are switched off.

Name the source of light for the speed cameras.

#### Question 58 of 67

ABC Company installs speed cameras along roads. The diagram shows speed cameras on the top of lamp posts located at two points, A and B, along a road.



At each point, the speed camera takes a picture of the car passing by. The pictures help to calculate how fast the car had travelled from point A to point B. The pictures will only be clear if the surrounding light is very bright.

One night, the picture taken by the speed camera at point A was not clear while the picture taken by the speed camera at point B was very clear.

ABC Company found out that one of the light bulbs of the lamp at point A was not working.

Using the information given, explain why the picture taken by the speed camera at point A was not as clear as the one taken by the speed camera at point B. (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.

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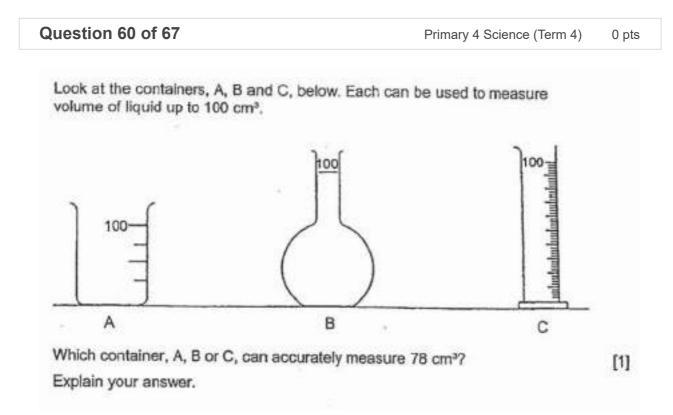
Matter like liquids have mass and occupy space. (1 mark)

State two other properties of liquids.

Property 1: \_\_\_\_\_\_
Property 2: \_\_\_\_\_

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.



Which container A, B or C can accurately measure 78cm<sup>3</sup>? Explain your answer. (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 61 of 67

Primary	4	Science	(Term 4	) 2 pts
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Billy fills a syringe with some water as shown in the diagram below. He pushes the plunger inwards into the syringe until he could not push any longer.

		Water air	D push inwa	-70.20	
	1	State what will happen to the volume remain the same) in the syringe afte volume of air:		Source of the second	[2]
	)	i) volume of water:			
Match	the	e options below:			
1. [	]	Volume of Air:	A.	Remain the same	
2. [	]	Volume of water:	_ B.	Decrease	
			C.	Increase	

#### Question 62 of 67

Ms Tan uses a slow cooker shown in the diagram below.

It takes a long period to cook food without needing anyone to monitor. The slow cooker takes a long time to reach the temperature that is needed to cook the food.

The lid of the slow cooker fits the pot perfectly to ensure that the hot air does not escape from the pot.



A heating element, shown below, is found at the base of the slow cooker. It is made of metal.



The heating element heats up the pot of the slow cooker. The dial controls the temperature of the heating element.

The table shows the time taken to cook the chicken at different temperatures.

Temperature set to cook the chicken (°C)	Time taken to cook the chicken (h)
65	2
50	4

How does the temperature set affect the amount of heat given off by the heating element in the slow cooker? (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 63 of 67

Ms Tan uses a slow cooker shown in the diagram below.

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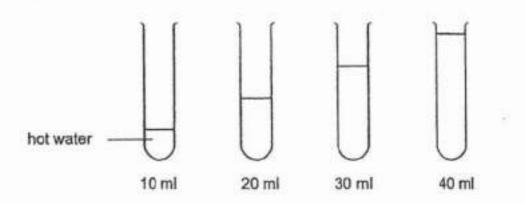
The pot is made of ceramic. Explain why a ceramic pot is more suitable for cooking than a metal pot. (2 marks)

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.

Primary 4 Science (Term 4)	0 pts
f the slow cooker. So, she used a metal	
used.	
metal handle	
e realised that the food was not fully of the metal lid she used.	
be not fully cocked?	[1]
	f the slow cooker. So, she used a metal used. Metal handle be realised that the food was not fully of the metal lid she used.

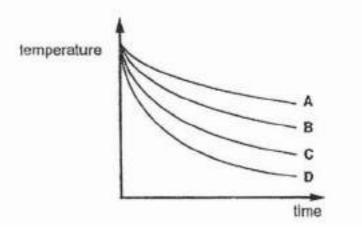
This question is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.

Susan pours hot water of the same temperature into four similar tubes. The amount of hot water in each tube is different as shown below.



The water in each tube cools down. Susan measures and records down the temperature of water in each tube at the end of the experiment.

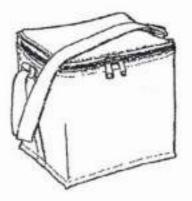
The graph shows her results.



Which line (A, B, C or D) shows the results for the tube with 40 ml of hot water? Explain your answer. (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.

The diagram shows a cooler bag. A cooler bag is used to keep drinks cold for a longer time.



A piece of foam, shown below, is used in between the inner and outer layers of the bag. The piece of foam consists of many tiny holes.



Explain how the foam help in keeping the drinks cold for a longer time. (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 67 of 67

Kate bought a container of hot soup and a can of cold drink and placed them in the cooler bag.

When she reached her office, after 20 minutes, her container of hot soup had cooled down and the can of drink was no longer cold.

What could have caused the hot soup to cool down and the can of drink to be not as cold as when she bought it? (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.