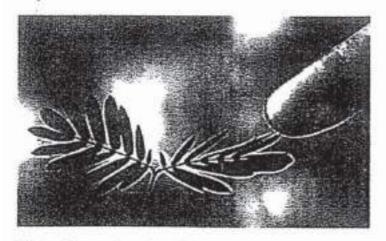
Test:	Primary 4 Science (Term 4) - Nanyang 2020	
Points:	75 points	
Name:		Score:
Date:		
Signature:		
Only sele	le choice answers with a cross or tick: ct one answer ct multiple answers	

Question	10	of 6	63
----------	----	------	----

Primary 4 Science (Term 4) 2 pts

For each question, four options are given. One of them is the correct answer. (28 x 2 marks)

A plant closes its leaves when touched.



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

- ○A) grow
- **B**) respond
- ○C) breathe
- OD) reproduce

#### Question 2 of 63

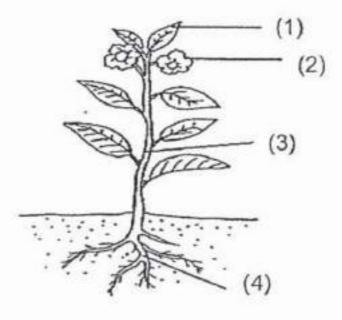
Which one of the following statements is true for ALL mammals?

- A) They have tails.
- **B**) They live on land.
- **C)** They have wings.
- **D**) They have hair as outer covering.

# **Question 3 of 63**

Primary 4 Science (Term 4) 2 pts

The diagram shows a plant. Which part, (1), (2), (3) or (4), obtains water for the plant?



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

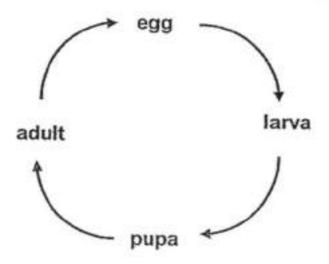
#### **Question 4 of 63**

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

•	
() D)	stomach> large intestine> small intestine
(⊂ C)	stomach> small intestine> large intestine
○В)	small intestine> large intestine> stomach
() A)	large intestine> stomach> small intestine

Question 5 of 63	Primary 4 Science (Term 4)	2 pts

The diagram below shows the life cycle of an animal.



Which animal is likely to have the life cycle as shown above?

- A) cat
- 🔘 B) chicken
- C) butterfly
- D) cockroach

```
Question 6 of 63
```

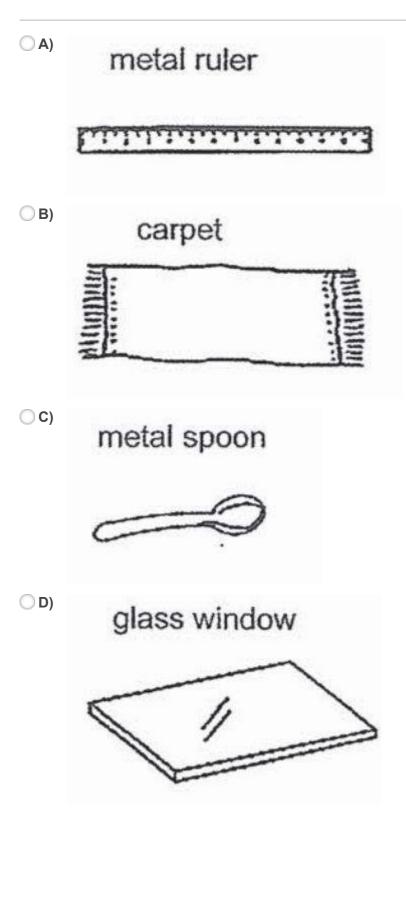
Primary 4 Science (Term 4) 2 pts

Which one of the following can be attracted by a magnet?

- A) iron ball
- **B**) paper ball
- **C)** plastic ball
- **D**) wooden ball

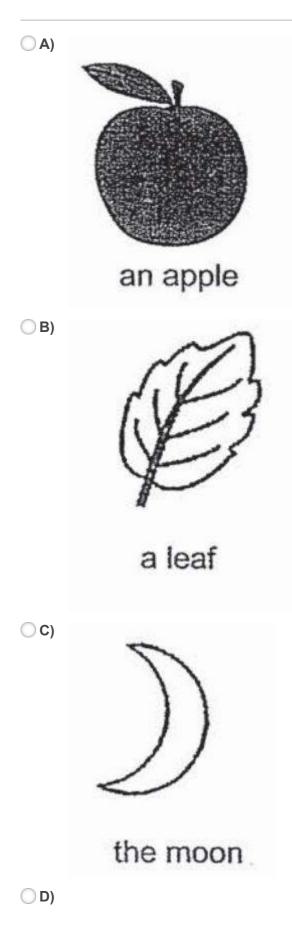
#### Question 7 of 63

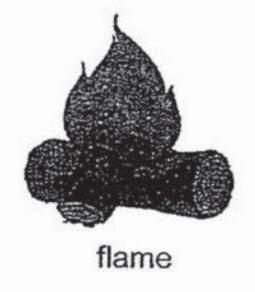
Which one of the following objects can be bent easily without breaking?



Question 8 of 63

Which one of the following is a source of light?





# **Question 9 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 sweater
- OC) A lighted bulb
- OD) A candle flame

Question 10 of 63

Primary 4 Science (Term 4) 2 pts

Which one of the following substances has a definite shape?

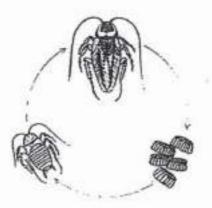
(A (	oil
------	-----

OB) door

- ○C) water
- OD) oxygen

# Question 11 of 63

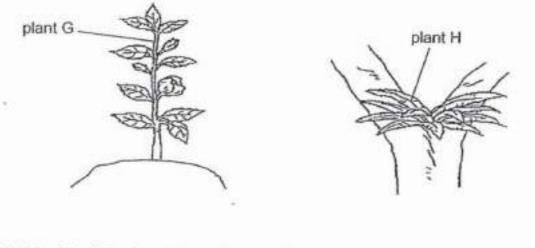
The diagram below shows the life cycle of animal X.



Which of the following characteristics of living things are shown in the life cycle of animal X in the diagram above?

- A Living things can grow.
- B Living things can reproduce.
- C Living things need air, food and water.
- D Living things respond to changes in the surroundings.
- **A**) A and B only
- **B**) A and D only
- **C**) B and C only
- **D**) C and D only

Anu saw two plants, G and H, in the school garden.

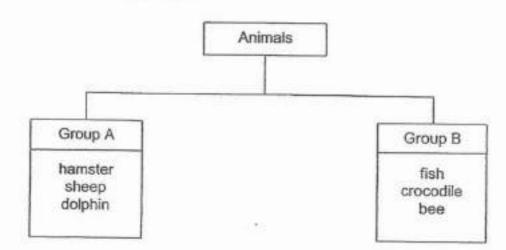


Which of the following statements about the two plants is/are correct?

- A Both plants have flowers.
- B Only plant G can make food.
- C Leaves of both plants can make food using sunlight.
- A) A only
- OB) Conly
- C) A and B only
- OD) A and C only

# Question 13 of 63

Study the classification chart below.



Which one of the following shows how the above animals have been grouped?

○ A)	Group A		Gro	up B	
	Breathe throught gills		Bre	athe throu	gh lungs
⊖В)	Group A		Gro	up B	
	Body coverin	ig of hair	Bod	y covering	g of scales
() C)	Group A		(	Group B	
	Give birth to young alive		ve	Lay eggs	
() D)	Group A	Group E	3		
	Live on land	Live in w	/ater		

Question 14 of 63

Primary 4 Science (Term 4) 2 pts

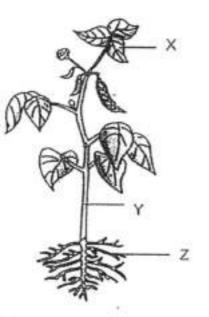
Which of the following are common characteristics of fern and fungi?

A They do not bear flowers.

- B They make their own food.
- C They reproduce by spores.
- D They get food from living things they grow on.
- **A**) A and B only
- **B**) A and C only
- C) B and D only
- **D**) C and D only

# Question 15 of 63

The diagram below shows parts, X, Y and Z, of a plant.



Which one of the following shows the correct functions of plant parts, X, Y and Z?

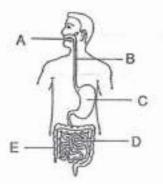
○ A)	X		Y			Ζ			
	Support the plant up	right	Allow air to go	o in an	d out	Abs	orb water	and minera	al salts
○В)	X		Y		Z				
	Allow air to go in and	d out	Holds up the	leaves	Anc	hor p	lant firmly	/ to ground	
() C)	X		Y	Z					
	Allow air to go in and	d out	Bear flowers	Get a	ir for p	olant	]		
O D)	Х	Y		Ζ				]	
	Make food for plant	Gets	sunlight for pla	nt Ke	ep the	e plar	nt upright	]	

# Question 16 of 63

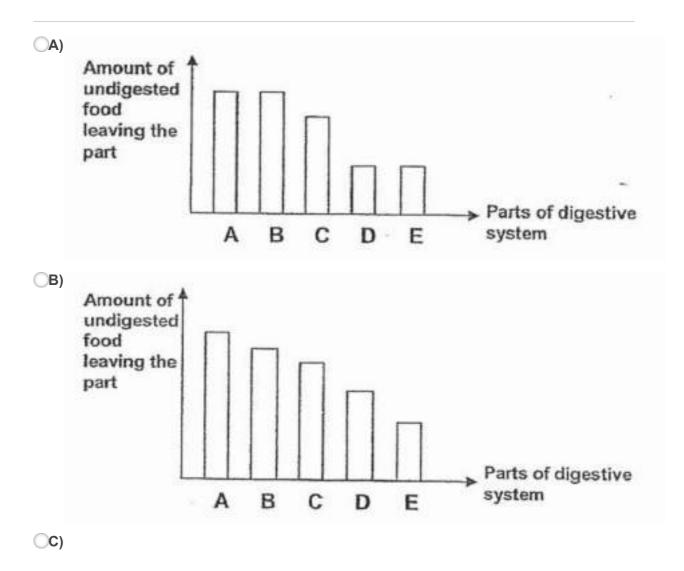
Which one of the following shows the **incorrect** function of the human systems?

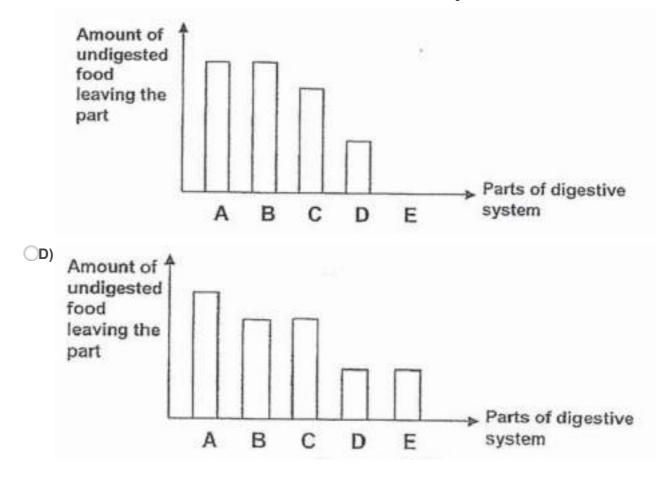
○ A)	System	Functions
	Skeletal System	Protect organs in the body.
ОВ)	System	Functions
	Muscular System	Work together with skeletal system to bring about movement.
◯ C)	System	Functions
() C)		Functions   n Removes undigested food from the body.
○ C) ○ D)		

The diagram below represents the digestive system.



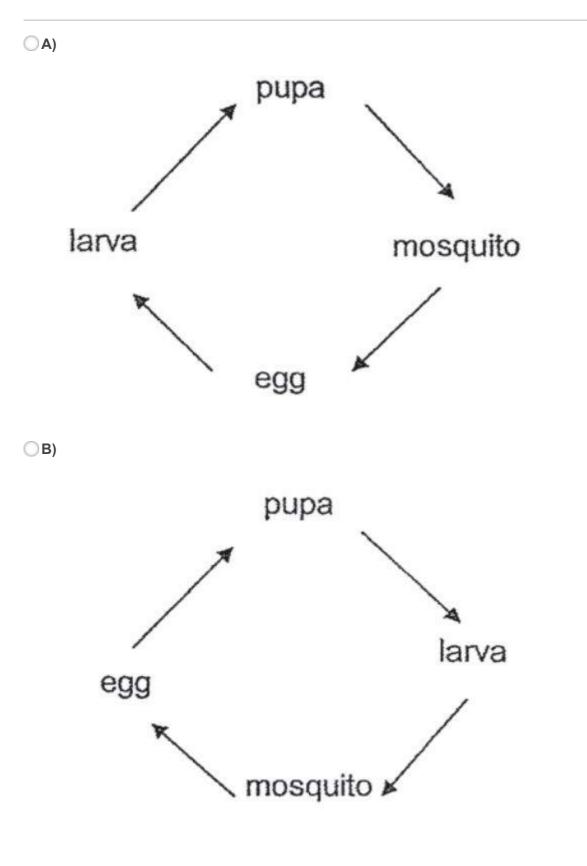
Which one of the following graphs shows the correct amount of undigested food leaving each part of the digestive system?



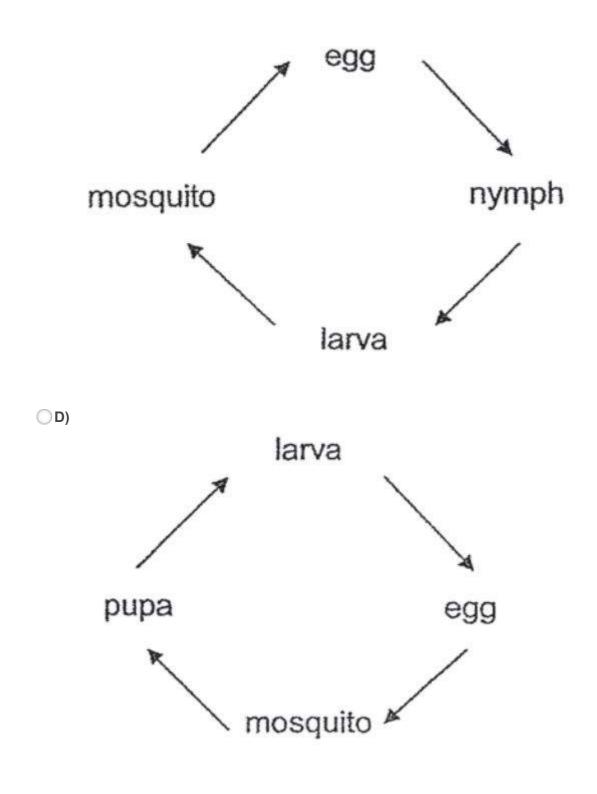


# Question 18 of 63

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



OC)



#### Question 19 of 63

The table below shows the number of days animal Z spends at each stage of its life cycle.

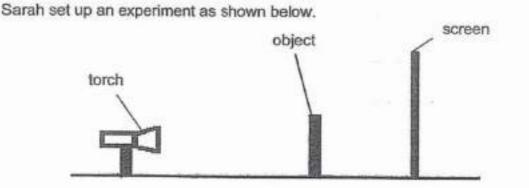
Stage	Number of days		
Eggs	5		
Adult	30		
Pupa	10		
Larva	15		

How many days does it take for animal Z to first turn into an adult after the eggs were hatched?

$\mathcal{O}$	A)	25

- **B)** 30
- **C)** 55
- OD) 60



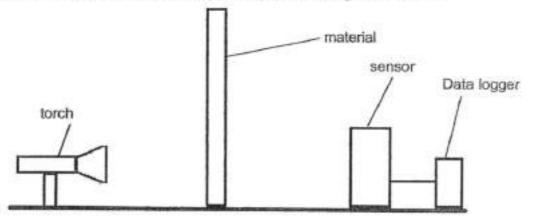


Which of the following changes should she make in order to observe a larger shadow on the screen?

- A Move the torch nearer to the object.
- B Move the screen away from the object.
- C Move the torch further away from the object.
- D Move both the object and screen away from the torch by 5 cm.
- **A**) A only
- **B**) A and B only
- C and D only
- **D**) B, C and D only

# Question 21 of 63

Jackson set up an experiment as shown below. The torch was switched on and the sensor recorded the amount of light that passed through the material.



He repeated the experiment using different materials and the results of his experiment are shown in the table below.

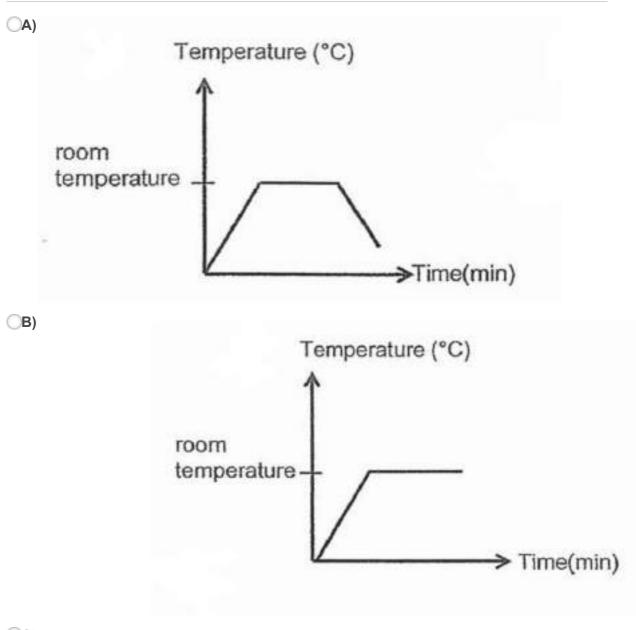
Material	Amount of light detected by sensor (units)
A	750
B	600
C	920
D	230

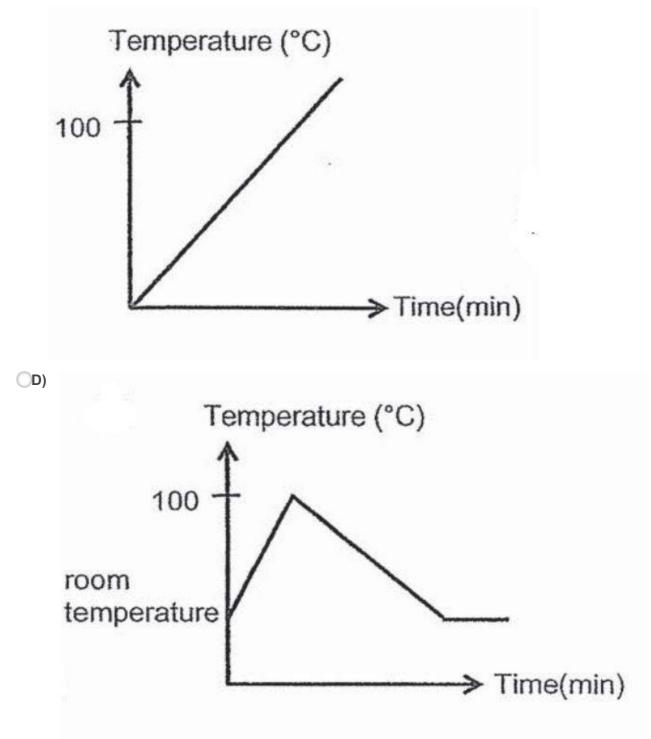
Which material should Jackson use for his room curtains if he wanted to sleep in a darker room during the day?

- **A**) A
- **В)** В
- **○C)** C
- OD) D

Jason heated a beaker of water until it reached 100°C. The beaker of water was then immediately left on a table to cool to room temperature.

Which one of the following graphs correctly shows the changes in the temperature of the substances in the beaker?





# Question 23 of 63

May was unable to separate two bowls that were stuck to each other.



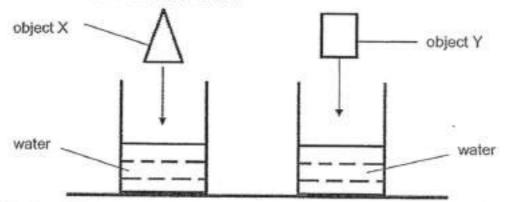
Which of the following actions should May take to separate the two bowls?

- A Pour hot water into bowl A.
- B Add some ice cubes into bowl A.
- C Wrap a towel that is soaked in ice water around bowl B.
- D Wrap a towel that is soaked in hot water around bowl B.
- **A**) A and C only
- **B**) A and D only
- **C**) B and C only
- **D**) B and D only

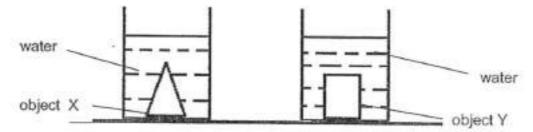
#### 8/6/2021

# Question 24 of 63

The diagram below shows 2 different objects, X and Y, being placed into a beaker filled with the same amount of water.



After the objects were placed into the beakers of water, it was observed that the water level in both beakers were identical.

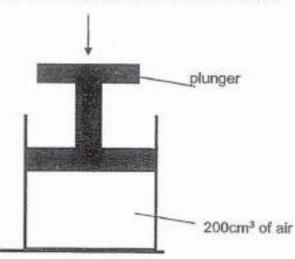


Based on the set-ups above, which one of the following conclusions about objects X and Y is correct?

- A) X and Y have the same mass.
- **B)** X and Y have the same weight.
- **C**) X and Y have the same volume.
- **D**) X and Y are made of the same material.

# Question 25 of 63

Ashton pushed the plunger into an empty container as shown below.



What would happen to the mass and volume of air inside the container after Ashton pushed the plunger in?

() A)	Mass of air	Volur	ne of air		
	decreases	decre	ases		
○В)	Mass of air		Volume of air		
	remains the	same	remains	the sa	me
() C)	Mass of air		Volume	of air	
	remains the	same	decrease	es	
O D)	Mass of air	Volur	ne of air		
	decreases	remai	ns the sa	me	

Si Ling listed the properties of 4 materials, J, K, L and M, in the table below.

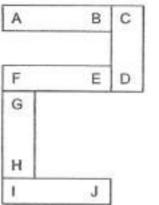
Properties	Material J	Material K	Material L	Material M
Does it tear easily?	No	No	Yes	No
Is it waterproof?	Yes	Yes	Yes	No
Is it flexible?	No	Yes	Yes	Yes

Which one of the materials is most suitable for making a swimming cap?

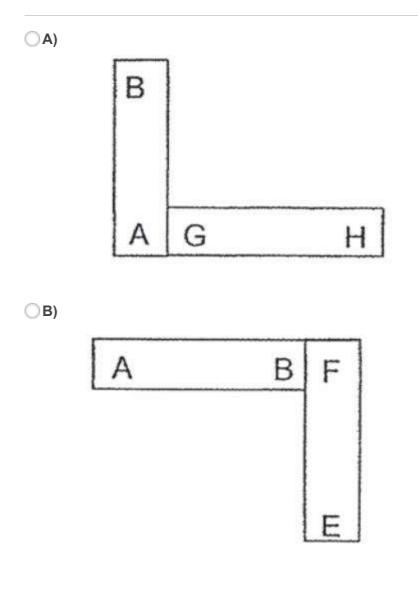
- **A**) Material J
- **B**) Material K
- OC) Material L
- OD) Material M

# Question 27 of 63

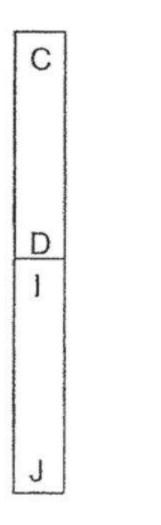
Five bar magnets with their ends marked from A to J can be arranged as shown below without any replusion.

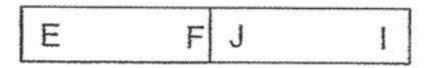


Which one of the following diagrams shows a possible arrangement of two of the above magnets?



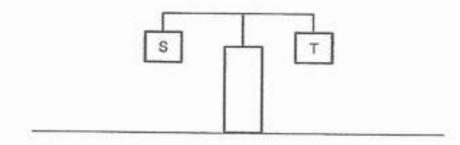
OC)



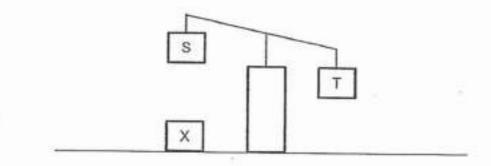


Question 28 of 63

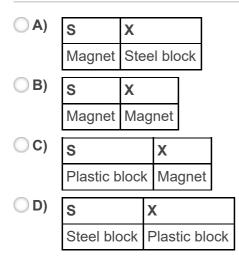
The diagram below shows a beam balance with objects S and T hung at both ends. Both objects are of the same mass.

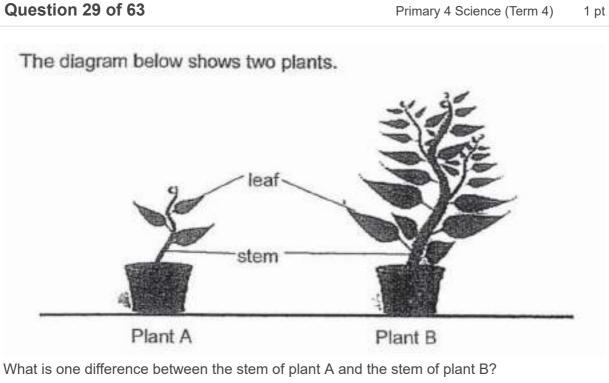


The diagram below shows what happens when an object, X, is placed below object S.



Based on the observations above, which one of the following best describes objects S and X?

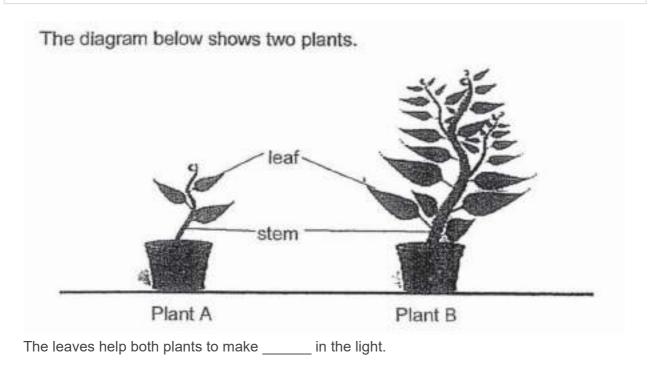




The stem of plant A is than the stem of plant B.

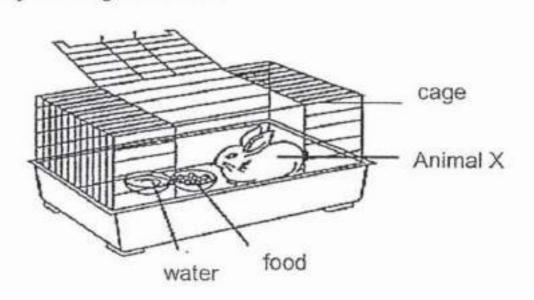
Question 30 of 63

Primary 4 Science (Term 4) 1 pt



# Question 31 of 63

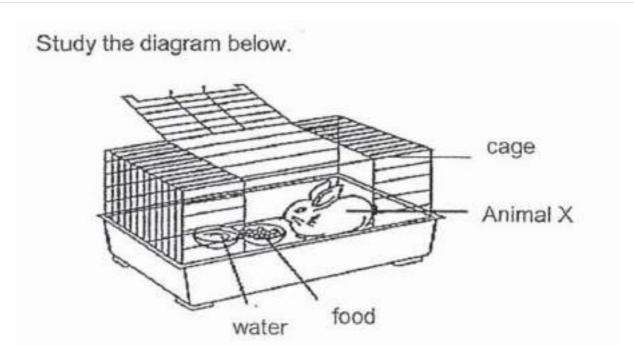
# Study the diagram below.



After a few days, will the amount of water in the bowl increase, decrease or remain the same?

# Question 32 of 63

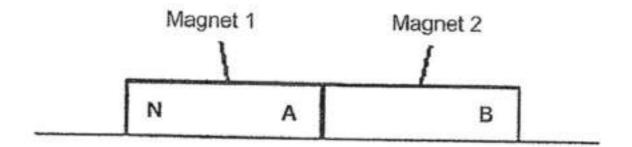
Primary 4 Science (Term 4) 1 pt



Based on the diagram above, name one substance this animal needs so that it remains alive.

# Question 33 of 63

Two magnets are placed together as shown below. They did not repel each other.



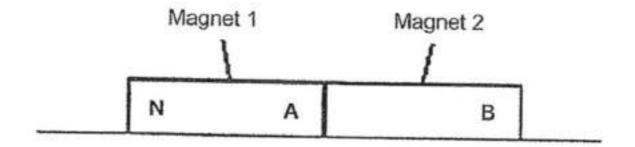
The north pole of magnet 1 is labelled N.

Identify the poles labelled A on magnet 1.

Question 34 of 63

Primary 4 Science (Term 4) 1 pt

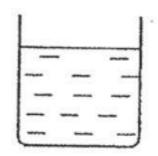
Two magnets are placed together as shown below. They did not repel each other.



The north pole of magnet 1 is labelled N.

Identify the pole labelled B on magnet 2.

# The diagram shows a beaker of water.

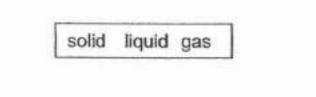


Fill in the blanks using the correct words in the list.

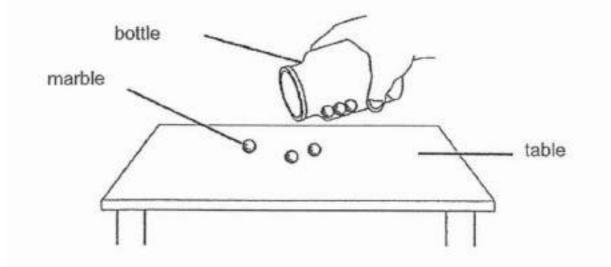
1.[]	When heat is removed from the water, its temperature	Α.	gas
2. [ ]	The beaker of water is put in the freezer. After some time, the water will change its state to become	В.	increases
		C.	decreases
		D.	solid
		E.	remains unchaged

Question 36 of 63

Choose the correct words from the box to fill in the blanks below.



Amy pours some marbles from a bottle onto a table as shown below.

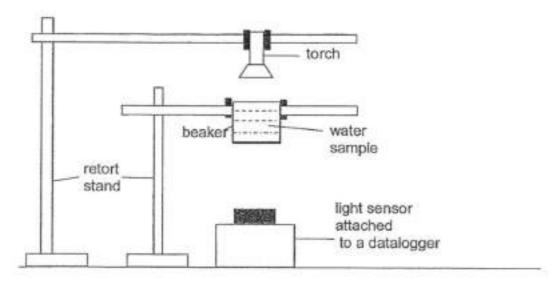


The volume and shape of the marbles remain the same.

1. [ ]	The above shows that a marble is a	Α.	solid
2. [ ]	Any pours of term a bottle onto a table as shown balow.	В.	liquid
		C.	gas

# Question 37 of 63

Maya carried out an experiment with water samples collected from 3 different ponds, S, T and U. She placed 100 ml of water samples into a glass beaker and set up the experiment as shown below.



Maya switched on her torch and shone it over the water sample. She used a datalogger to measure the amount of light that passed through the water sample. She repeated her experiment for water sample T and U, She recorded her results in the table below.

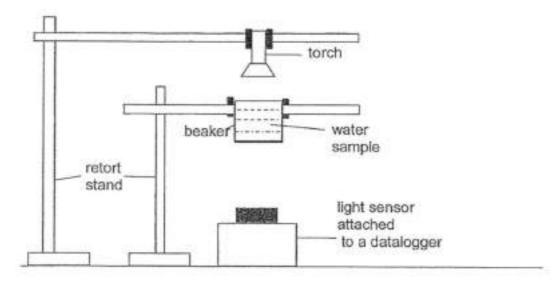
Amou	nt of light detected (u	nit)
Pond S	Pond T	Pond U
300	910	77

Based on the results collected, arrange the water samples from pond S, T and U starting from the **clearest** water sample.

Clearest -----> Least Clear

# Question 38 of 63

Maya carried out an experiment with water samples collected from 3 different ponds, S, T and U. She placed 100 ml of water samples into a glass beaker and set up the experiment as shown below.



Maya switched on her torch and shone it over the water sample. She used a datalogger to measure the amount of light that passed through the water sample. She repeated her experiment for water sample T and U, She recorded her results in the table below.

Amou	nt of light detected (u	nit)
Pond S	Pond T	Pond U
300	910	77

Maya also observed that there is the greatest number of water plant X growing in pond T compared to pond S and U.

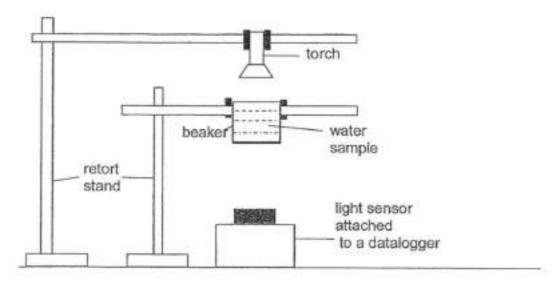
Based on the results of the experiment, explain Maya's observations of the growth of water plant X in pond T. (1 mark)

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 63

Maya carried out an experiment with water samples collected from 3 different ponds, S, T and U. She placed 100 ml of water samples into a glass beaker and set up the experiment as shown below.



Maya switched on her torch and shone it over the water sample. She used a datalogger to measure the amount of light that passed through the water sample. She repeated her experiment for water sample T and U, She recorded her results in the table below.

Amou	nt of light detected (u	nit)
Pond S	Pond T	Pond U
300	910	77

Maya identified a few variables in her experiment. Choose the correct answer for each variable so that her experiment will be fair.

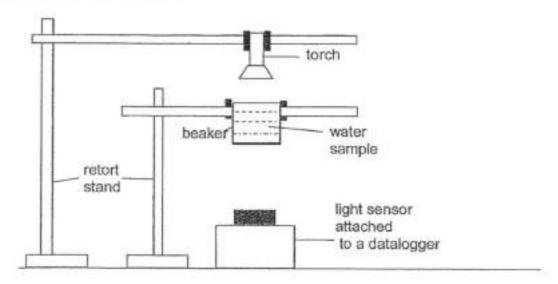
Variable: Light source

**A)** Keep the same

OB) Change

# Question 40 of 63

Maya carried out an experiment with water samples collected from 3 different ponds, S, T and U. She placed 100 ml of water samples into a glass beaker and set up the experiment as shown below.



Maya switched on her torch and shone it over the water sample. She used a datalogger to measure the amount of light that passed through the water sample. She repeated her experiment for water sample T and U, She recorded her results in the table below.

Amou	nt of light detected (u	nit)
Pond S	Pond T	Pond U
300	910	77

Maya identified a few variables in her experiment. Choose the correct answer for each variable so that her experiment will be fair.

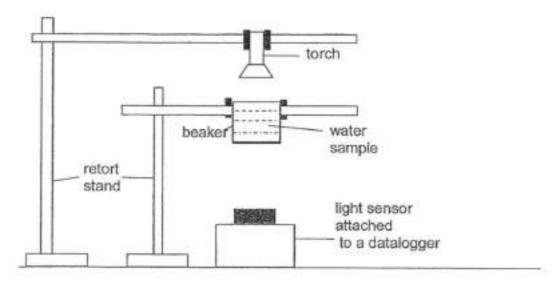
Variable: Water Sample

**A**) Keep the same

OB) Change

# Question 41 of 63

Maya carried out an experiment with water samples collected from 3 different ponds, S, T and U. She placed 100 ml of water samples into a glass beaker and set up the experiment as shown below.



Maya switched on her torch and shone it over the water sample. She used a datalogger to measure the amount of light that passed through the water sample. She repeated her experiment for water sample T and U, She recorded her results in the table below.

Amou	nt of light detected (ur	nit)
Pond S	Pond T	Pond U
300	910	77

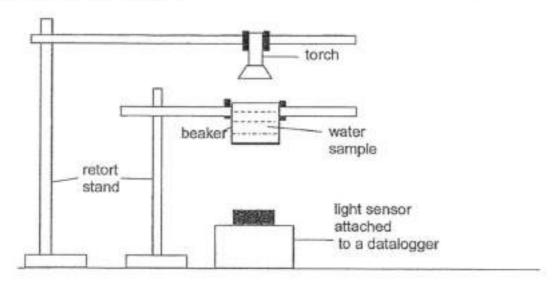
Variable: Amount of water sample

**A**) Keep the same

**B**) Change

### Question 42 of 63

Maya carried out an experiment with water samples collected from 3 different ponds, S, T and U. She placed 100 ml of water samples into a glass beaker and set up the experiment as shown below.



Maya switched on her torch and shone it over the water sample. She used a datalogger to measure the amount of light that passed through the water sample. She repeated her experiment for water sample T and U, She recorded her results in the table below.

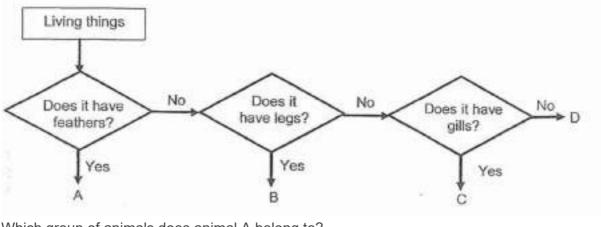
Amou	nt of light detected (ur	nit)
Pond S	Pond T	Pond U
300	910	77

Variable: Distance between torch and light sensor of data logger

- **A**) Keep the same
- OB) Change

#### Question 43 of 63

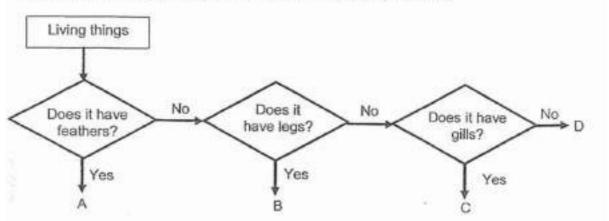
The diagram shows a flowchart of four animals, A, B, C and D.



Which group of animals does animal A belong to?

Question 44 of 63Primary 4 Science (Term 4)0 pts

The diagram shows a flowchart of four animals, A, B, C and D.

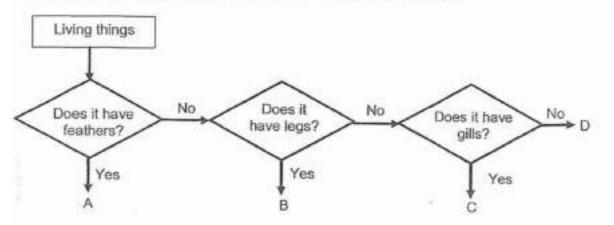


Write down all the characteristics of animal B. (1 mark)

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 45 of 63

The diagram shows a flowchart of four animals, A, B, C and D.



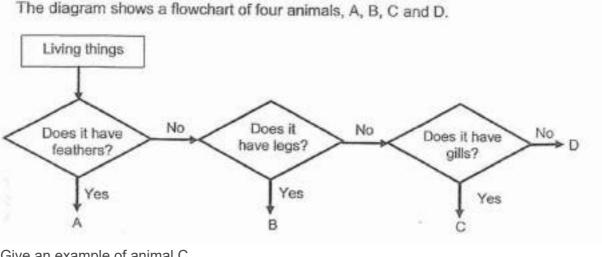
State all the similar characteristics between animal C and animal D. (1 mark)

This guestion 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.



Primary 4 Science (Term 4) 1 pt



Give an example of animal C.

Shayna classified some living things into different groups based on their characteristics.

Group W Group X Group Y		Group Z	
penguin	bamboo plant	mushroom	bacteria
cat	bird's nest fern	mould	

In which group, W, X, Y and Z should yeast be placed? (1 mark)

### Question 48 of 63

Primary 4 Science (Term 4) 0 pts

Shayna classified some living things into different groups based on their characteristics.

Group W	Group W Group X Group Y		Group Z
penguin	bamboo plant	mushroom	bacteria
cat	bird's nest fern	mould	

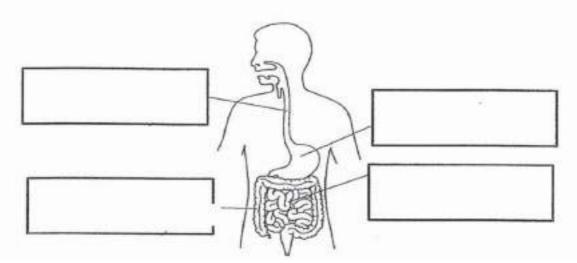
Identify one difference in characteristics between the living things in Group X and Y. (1 mark)

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 63	Primary 4 Science (Term 4)	0 p
	n the cupboard for some time. His friend to the cupboard together with his shoes to st ven two substances, A and B.	
Substance A – absorbs moisture from the surroundings	Substance B – adds extra moisture to the surroundings	

# Question 50 of 63

The diagram below represents the digestive system.



Label the parts of the digestive system in the boxes above. (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.

Question 51 of 63	Primary 4 Science (Term 4)	1 pt
-------------------	----------------------------	------

Identify the substances that the small intestine of the digestive system absorb.

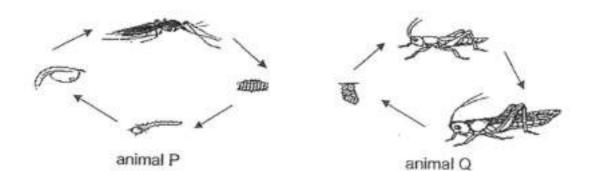
Question	52 of	63
----------	-------	----

Primary 4 Science (Term 4) 1 pt

Identify the substances that the large intestine of the digestive system absorb.

#### Question 53 of 63

The diagram below shows the life cycles of animal P and animal Q.

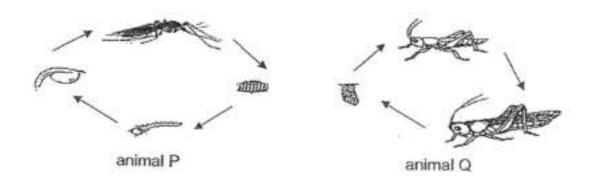


Based only on the diagram above, state two differences between the life cycles of animal P and animal Q. (2 marks)

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 54 of 63

The diagram below shows the life cycles of animal P and animal Q.



Ruben collected several eggs that belongs to a butterfly. He set up an experiment to find out how the surrounding temperature affects the number of eggs that hatch. The table below shows the results of his experiment.

Set-up	A	В	C
Surrounding temperature (°C)	28	30	32
Number of eggs that hatched	20	24	29

What is the relationship between the surrounding temperature and the number of eggs that hatched? (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 55 of 63

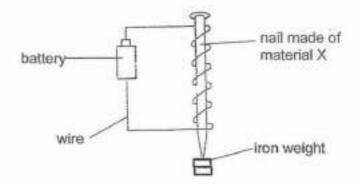
Ruben collected several eggs that belongs to a butterfly. He set up an experiment to find out how the surrounding temperature affects the number of eggs that hatch. The table below shows the results of his experiment.

Set-up	A	В	C
Surrounding temperature (°C)	28	30	32
Number of eggs that hatched	20	24	29

Based on the results above, what can be done to increase the number of adult butterflies? 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.

Xue Wen wanted to find out which material, X, Y or Z, can be used to make a stronger electromagnet. He made an electromagnet by using a nail made of material X and carried out an experiment as shown below.



He kept adding iron weights to the tip of the electromagnet until they could no longer be attracted. He repeated the experiment with materials Y and Z and recorded the results in the table below.

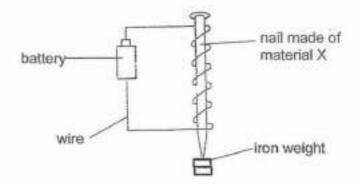
Material	Х	Y	Z
Number of iron weights attracted	2	8	5

Xue Wen's teacher advised that he should have repeated the experiment at least 3 times for each material so that he would get three readings for each material.

Why did Xue Wen's teacher ask him to repeat 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.

Xue Wen wanted to find out which material, X, Y or Z, can be used to make a stronger electromagnet. He made an electromagnet by using a nail made of material X and carried out an experiment as shown below.



He kept adding iron weights to the tip of the electromagnet until they could no longer be attracted. He repeated the experiment with materials Y and Z and recorded the results in the table below.

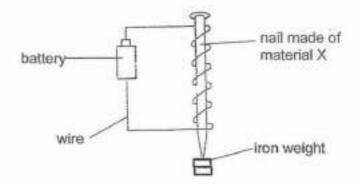
Material	Х	Y	Z
Number of iron weights attracted	2	8	5

Xue Wen's teacher advised that he should have repeated the experiment at least 3 times for each material so that he would get three readings for each material.

State 2 ways to increase the strength of the electromagnet? (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.

Xue Wen wanted to find out which material, X, Y or Z, can be used to make a stronger electromagnet. He made an electromagnet by using a nail made of material X and carried out an experiment as shown below.



He kept adding iron weights to the tip of the electromagnet until they could no longer be attracted. He repeated the experiment with materials Y and Z and recorded the results in the table below.

Material	Х	Y	Z
Number of iron weights attracted	2	8	5

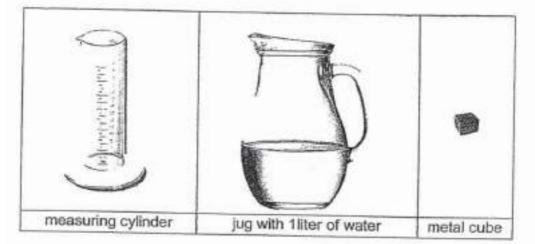
Xue Wen's teacher advised that he should have repeated the experiment at least 3 times for each material so that he would get three readings for each material.

Based on Xue Wen's experiment, which material, when used as an electromagnet, will take the least amount of time to separate iron from the scrap pile? 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 59 of 63

Jie Ling was asked to determine the volume of a metal cube. She was given the following items.



Using only the items provided, list down the steps that she needs to take to determine the volume of the cube. (2 marks)

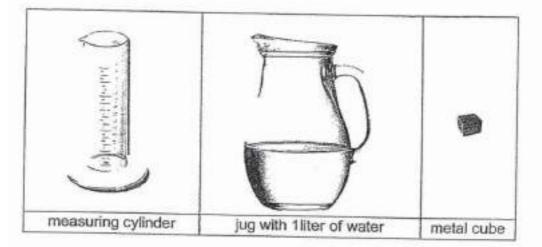
Step 1: Pour in 200 ml of water into the measuring cylinder.

Step 2: \_\_\_\_\_

Step 3: \_\_\_\_\_

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.

Jie Ling was asked to determine the volume of a metal cube. She was given the following items.

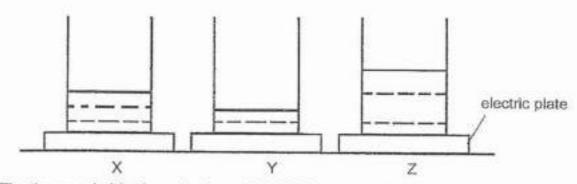


State two actions that Jie Ling should take while carrying out the experiment to ensure that the volume she measured is accurate. (2 marks)

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 61 of 63

The diagram below shows three beakers with different amounts of water. They were placed on three identical electric plates and heated till the water bolled.

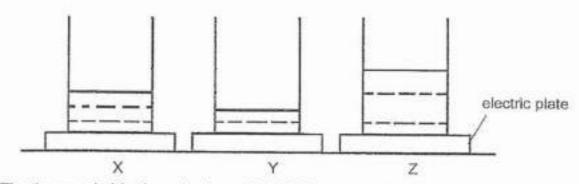


The time needed for the water to reach 100 °C was recorded down.

Based on the set-up above, arrange beakers X, Y and Z in the table below, beginning with the beaker of water that took the shortest time to boil to the beaker of water that took the longest time.

Shortest time to boil -----> Longest time to boil

The diagram below shows three beakers with different amounts of water. They were placed on three identical electric plates and heated till the water bolled.

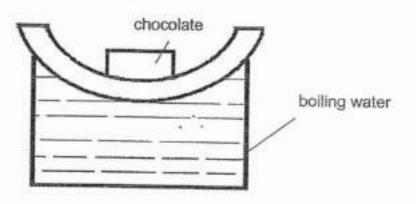


The time needed for the water to reach 100 °C was recorded down.

Nadya decided to use one of the beakers of boiling water to cook an egg. Which beaker of water should she use if she wanted to make hard-boiled egg as fast as possible? 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.

Nadya wanted to melt her chocolate. She placed a dish with a piece of chocolate on top of a container of boiling water as shown in the diagram below.



Explain why the chocolate melted after some time.

[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.