Test:	Primary 5 Science (Term 2) - Henry Park	
Points:	67 points	
Name:		Score:
Date:		
Signature:		
Select multiple	e choice answers with a cross or tick:	
Only select	t one answer	
Can selec	t multiple answers	

Question 1 of 58

Primary 5 Science (Term 2) 2 pts

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

Minghao was drinking a cup of hot coffee when his spectacles fogged up.

Which of the following statements explains why his spectacles had fogged up?

- **()** A) Water from the surrounding air condenses on the cool surface of his lens.
- **B**) Water from the surrounding air evaporates from the cool surface of his lens.
- **C)** Water vapour from the hot coffee evaporates from the cool surface of his lens.
- **D**) Water vapour from the hot coffee condenses on the cool surface of his lens.

Wenhao went for a run at the track. After the run, he perspired and felt even colder when it became windy.



Which of the following statements explains correctly why he felt colder when it became windy?

- A) His perspiration loses heat to the body and evaporates faster.
- **B**) His perspiration gains heat from the body and evaporates faster.
- **C)** His perspiration loses heat to the surrounding wind and evaporates faster.
- **D**) His perspiration gains heat from the surrounding wind and evaporates faster.

Nelly conducted an experiment using the set-ups below. The set-ups are placed in the science lab at room temperature.



Which of the following graphs correctly shows the change in temperature of water in the three set-ups over time?



ОВ)



OD)



÷.

Samy wanted to find out how the amount of wind affects the rate of evaporation of water on the paper. The fans are all moving at the same speed.



#### Which two set-ups should he use to have a fair experiment?

- **A**) A and B
- **B**) B and C
- OC) A and C
- OD) C and D

The diagram below shows the changes of state in water.



## Which of the following is correct?

○ A)	Process A	Process B	Process C	Substance D
	Lose heat	Gain heat	Lose heat	Steam
○В)	Process A	Process B	Process C	Substance D
	Gain heat	Lose heat	Gain heat	Water Vapour
⊖ C)	Process A	Process B	Process C	Substance D
	Lose heat	Gain heat	Gain heat	Steam
O D)	Process A	Process B	Process C	Substance D
	Gain heat	Gain heat	Lose heat	Water Vapour



Four students discussed on the effects of global warming as shown in the diagram below.

Which of the following students are correct?

- A) Ming and Elliot
- **B)** Elliot and Yuki
- C) Ming and Betty
- **D**) Yuki and Betty

Question 7 of 58

Primary 5 Science (Term 2) 2 pts

In Singapore, waste may be sorted into different bins for the purpose of recycling.

Which of the following statements are correct reasons for recycling waste?

- A. To preserve trees
- B. To reduce pollution
- C. To reduce wastage of materials
- **A**) A and C only
- **B**) A and B only
- **C**) B and C only
- **D**) A, B and C only

### **Question 8 of 58**

Primary 5 Science (Term 2)

2 pts

Jack used a float to help him swim in the pool.



Jack found that he can continue to pump air into the float even when it was fully inflated.

What physical property of air allowed him to do this?

- **A**) Air has mass
- **B**) Air occupies space
- **C**) Air can be compressed
- **D**) Air does not have a definite shape

### Question 9 of 58

Iman has a bowl of hot soup and he needs to cool the soup fast. Which of the following will help to cool the bowl of soup most quickly?

- A) Wrap the bowl with a dry cloth.
- **B**) Place the bowl in a ziplock bag.
- **C)** Pour the hot soup into a metal plate.
- **D**) Cover the top of the bowl with a wooden lid.

John conducted an experiment using two identical flasks as shown below. Flask X was covered with a layer of feathers with netting while flask Y was only covered with netting. Both flasks were filled with 200 cm<sup>3</sup> of water measuring 80°C.



A magnified picture of the feathers is shown in the diagram below.



magnified view of the feathers

Which one of the following graphs correctly shows the temperature of water in flask X and Y over a period of time?

**A**)



(В)



(C)



OD)



The wheels of a horse cart are fitted with steel rims.



The original size of the steel rim is smaller than the original size of the wooden spoke.



The list of steps below shows how the steel rim is fitted around the wooden spoke:

- Step 1: Heat up the steel rim with burning coals.
- Step 2: Place the heated steel rim around the wooden spoke.
- Step 3: Quickly pour cold water onto the fitted rim.

Which of the following statements explains why step 3 needs to be carried out?

- A) The steel rim will expand so that it can grip the wooden spoke tightly.
- **B**) The wooden spoke will expand so that it will not fall out of the steel rim.
- **C)** The wooden spoke will contract so that it will not fall out of the steel rim.
- **D**) The steel rim will contract to its original size and grip the wooden spoke tightly.

Richard could not open a jar of jam because the lid was too tight.



Which of the following shows the correct action that would help Richard open the jar of jam and explanation on how it helped?

○ A)	Action	Explana	atio	on	
	Heat the lid over a flame.	The hea	at w	vill cause the lid to contract and loosen.	
○В)	Action			Explanation	
	Wrap the lid with a piece of cloth	of warm		The heat will cause the lid to expand and loosen.	
() C	Action	Explar	nati	on	
	Heat the bottom of the jar.	The he	at	will cause the jar to contract and loosen.	
() D)	Action	E	хр	lanation	
	Immerse both the jar and l hot water.	id in T e	he xpa	heat will cause both the jar and the lid to and and loosen.	

An iron block was hung from a spring balance as shown below.



Which of the following correctly describes the volume and mass of iron block after being hung for 15 minutes above the burning candle?

○ A)	Volume of iron block (cm <sup>3</sup> )	Mass of iron block (g)
	remained the same	increase
⊖В)	Volume of iron bock (cm <sup>3</sup> )	Mass of iron block (g)
	remained the same	remain the same
() C	Volume of iron block (cm <sup>3</sup> )	Mass of iron block (g)
	increased	increase
O D)	Volume of iron block (cm <sup>3</sup> )	Mass of iron block (g)
	increased	remain the same

Two containers of water, at room temperature, were heated on hot plates as shown in setup A and set-up B. The identical hot plates were set to the same temperature. Each container had 500 cm<sup>3</sup> of water.



Which of the following statement(s) is/are correct?

- A Water in set-up A will boil first.
- B The water in both containers will change state.
- C Water in set-up B will boil first.
- **A**) A only
- **B**) B only
- **C**) A and B only
- **D**) B and C only

Study the classification chart below.





() A)	Ρ			Q		R	
	cock	roac	h	fro	g	but	terfly
ОВ)	Ρ	Q				R	
	frog	сос	kr	oac	h	but	terfly
() C	Ρ			Q			R
	cock	roac	h	bu	tte	erfly	frog
() D)	Ρ		Q		R		
	butte	erfly	fr	og	С	ockr	oach



The diagrams below show flowers that have not been pollinated.

In which of the following flowers can pollination take place?

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

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The diagram below shows a slice of fruit T.



fruit T

Based on the information given, which one of the following statements is most likely correct about the flower from which fruit T has developed?

- A) The flower has many ovaries.
- **B**) The flower has more than one stigma.
- **C**) There are many ovules inside its ovary.
- **D)** The fruit is developed from a flower with many small petals.



The diagrams below show a flower, female human reproductive system and male human reproductive system.

Female reproductive system

Male reproductive system

Which part of the above flower has the same functions of X and Y in humans?



### Question 19 of 58

Primary 5 Science (Term 2) 2 pts

Flowers benefit directly from the visits of insects like butterflies and bees because they

- **A**) fertilise the flowers.
- B) pollinate the flowers.
- **C)** lay eggs on the flowers.
- **D**) provide food for the flowers.

The diagram bolow shows the female reproductive parts in humans.



Which part produces eggs and which part does a fertilised egg develop into an unborn baby in?

○ A)	Produce eggs	Fertilised egg develops into an unborn baby
	Р	Q
() В)	Produce eggs	Fertilised egg develops into an unborn baby
	S	R
() C)	Produce eggs	Fertilised egg develops into an unborn baby
	Р	R
O D)	Produce eggs	Fertilised egg develops into an unborn baby
	S	Q

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Primary 5 Science (Term 2) 2 pts

Which one of the following helps a developing baby get his nutrients from his mother?

○A) egg

OB) womb

- ○C) ovary
- **D**) umbilical cord

Study the family tree of Kasim as shown below.

The family tree shows the members who have attached earlobes or detached earlobes.



### Which one of the following statements about the family tree is correct?

- A) Both Kasim's uncles have detached earlobes.
- **B**) Both Kasim's sibling have attached earlobes.
- **C)** Both Kasim's parents have detached earlobes.
- **D)** Both Kasim's grandmothers have attached earlobes.

Ai Ling wanted to test the strength of bags made of four different materials.

She placed 100-gram weights, one at a time, into each bag until it tore.



She recorded the number of weights the bags could hold before they tore in the table below.

Material of bag	A	B	C	D
Number of 100-gram weights the bag could hold before it tore	8	4	2	6

Based on the information given, which of the following materials is the strongest?

- **○A)** A
- B) B
- **○C)** C
- O**D)** D

Study the flowchart below.



Which material should Dinesh use to make the body and handle of the frying pan?

A) Body Handle
D E



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Primary 5 Science (Term 2) 2 pts

In diagram 1, Aaron placed a cube near pole X of a U-shaped magnet and it was attracted to the pole. In diagram 2, without turning the cube, he placed it near pole Y. The cube was also attracted to that pole.



What conclusion can he draw from the observation?

- A) The cube is a magnet.
- **B**) The cube is made of steel.
- **C)** The cube is made of copper.
- **D)** The magnet has two like poles.

Mrs. Ho placed a magnet on a tray of iron fillings.

Which one of the following diagrams correctly shows the pattern of the iron fillings attracted to the magnet?





Study the flow chart below.



# Which of the following represents the missing questions, X and Y, in the flow chart?



Study the classification table below carefully.



Which animals have been placed incorrectly in the classification table?

- A) chicken and frog
- **B)** mosquito and beetle
- **C**) grasshopper and beetle
- **D**) mosquito and cockroach

An experiment was conducted to find out the strength of four different magnets.

Iron nails were placed on a table. Magnet A was hung at a height of 30 cm above the table top as shown in the diagram below. The experiment is repeated with magnets B, C and D.



The number of iron nails attracted to the magnet was recorded in the table below.

Magnet	A	B	C	D
Number of iron nails	20	7	13	15
		and the second sec		1.0

Based on the results above, which magnet was the strongest? Give a reason for your answer?

An experiment was conducted to find out the strength of four different magnets.

Iron nails were placed on a table. Magnet A was hung at a height of 30 cm above the table top as shown in the diagram below. The experiment is repeated with magnets B, C and D.



The number of iron nails attracted to the magnet was recorded in the table below.

7	13	15
	7	7 13

Devi wanted to determine the strength of the magnets by using only one iron nail and a ruler. Describe how she can do so. (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.

Process K takes place when insect Q lands on the flower of plant P as shown in the diagram below.



Name process K.



Process K takes place when insect Q lands on the flower of plant P as shown in the diagram below.

How does removing the petals of plant P affect process K? (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.

Process K takes place when insect Q lands on the flower of plant P as shown in the diagram below.



Name the female reproductive part that needs to be present in order for process K to take place.

insect Q

Process K takes place when insect Q lands on the flower of plant P as shown in the diagram below.

What is likely to happen to the number of fruits produced by plant P if the number of insect Q decreases quickly? 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.

The diagram below shows the male and female reproductive cells during process Z in the reproduction of a human. Cells T and U are needed for process Z to occur.



Name the reproductive part where cell T is produced:

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Primary 5 Science (Term 2) 1 pt

The diagram below shows the male and female reproductive cells during process Z in the reproduction of a human. Cells T and U are needed for process Z to occur.



Name the reproductive part where cell U is produced:

The diagram below shows the male and female reproductive cells during process Z in the reproduction of a human. Cells T and U are needed for process Z to occur.



Process Z also takes place in flowering plants.

Describe how process Z takes place in a flower. (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.

The table below shows some physical traits of Mr. and Mrs. Lim.

Physical trait	Mr. Lim	Mrs. Lim
Hair length	Short	Short
Eyelid	Single	Single
Eye colour	Black	Black

The table below shows some of the physical traits of three girls, Abby, Betty and Claire.

Physical trait	Abby	Betty	Claire
Hair length	Short	Long	Short
Eyelid	Single	Single	Double
Eye colour	Black	Black	Blue

### Only two of the girls are the daughters of Mr. and Mrs. Lim.

Based on the information given, state which girl is not likely to be the daughter of Mr. and Mrs. Lim. Explain your answer. (1 mark)

The table below shows some physical traits of Mr. and Mrs. Lim.

Physical trait	Mr. Lim	Mrs. Lim
Hair length	Short	Short
Eyelid	Single	Single
Eye colour	Black	Black

The table below shows some of the physical traits of three girls, Abby, Betty and Claire.

Physical trait	Abby	Betty	Claire
Hair length	Short	Long	Short
Eyelid	Single	Single	Double
Eye colour	Black	Black	Blue

#### Only two of the girls are the daughters of Mr. and Mrs. Lim.

Explain how physical traits are passed on from parents to their children. (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.



Kenny recorded the amount of time taken for the wax on materials P and Q to melt as shown in the table below.

Material	Time taken for wax to melt (min)		
Р	20		
Q	2		

State the independent variable (changed variable) in this experiment.



Kenny recorded the amount of time taken for the wax on materials P and Q to melt as shown in the table below.

Material	Time taken for wax to melt (min)		
P	20		
Q	2		

The diagram below shows an electric iron.



Which material (P or Q) should he use to make the base of the electric iron?

Base: \_\_\_\_\_



Kenny recorded the amount of time taken for the wax on materials P and Q to melt as shown in the table below.

Material	Time taken for wax to melt (min)		
P	20		
Q	2		

The diagram below shows an electric iron.



Which material (P or Q) should he use to make the handle of the electric iron?



Kenny recorded the amount of time taken for the wax on materials P and Q to melt as shown in the table below.

Material	Time taken for wax to melt (min)		
P	20		
Q	2		

The diagram below shows an electric iron.



Using the results given, explain why you chose the material in the previous question to make the handle of the electric iron. (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.



The diagrams below shows the life cycles of insects A and B.

## Compare the life cycles of insects A and B.

State 2 differences between the life cycles of insect A and B. (2 marks) (Do not compare the size, shape and colour of the insects.)

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 diagrams below shows the life cycles of insects A and B.



## Compare the life cycles of insects A and B.

Butterflies lay many eggs on leaves at one time. State one advantage of laying many eggs. (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 table below is made of wood from sustainable forests.



Give 2 reasons why it is important to replace the forest trees that are cut down. (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.

The table below is made of wood from sustainable forests.



Name a greenhouse gas.

Wendy helped her mothar to bake potatoes for dinner. She placed a raw potato on a plate as shown in Figure 1.



Figure 1

Wendy's mother told her that the potato will be baked faster if she cut it as shown in Figure 2.



Name the variable Wendy should measure to find out if her mother's suggestion 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.

Wendy helped her mothar to bake potatoes for dinner. She placed a raw potato on a plate as shown in Figure 1.



Figure 1

Wendy's mother told her that the potato will be baked faster if she cut it as shown in Figure 2.



Give a reason why the potato in Figure 2 would be baked faster than that in Figure 1. (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.

Darren wanted to transfer 50 ml of liquid from the beaker onto a petri dish using a plastic dropper.



dropper and water will enter the dropper.

Explain why water will enter the dropper in step 3. (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.

Darren wanted to transfer 50 ml of liquid from the beaker onto a petri dish using a plastic dropper.



Step 1: Hold the plastic dropper in a vertical position in a beaker of water





Step 2: Insert the dropper inside the water. Squeeze the rubber end of the dropper and bubbles will appear.

Step 3: Release the rubber end of the dropper and water will enter the dropper.

Liquids and gases have mass and occupy space. State another common property of liquids and gases. (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.

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Darren wanted to fill up a pail using a bottle of water.



The pail was filled up with water faster using Method 2. Explain why. [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.

Jermaine set up a terrarium as shown below. She did not water the plants after it was sealed.



After two weeks, Jermaine noticed that mist can be seen inside the terrarium.



Explain how the 'mist' in the terrarium was formed. (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.

Jermaine set up a terrarium as shown below. She did not water the plants after it was sealed.



After two weeks, Jermaine noticed that mist can be seen inside the terrarium.



Explain why the plants in the terrarium can survive without being watered for two weeks. (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.

[2]

Mei Li wanted to find out how the colour of the surface of the beakers affects the temperature of air in the beakers.

She prepared set-ups A and B as shown below. She placed the set-ups under the Sun over a period of time.



The graph below shows the change in the temperature of the air in both set-ups over a few hours.



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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Steven conducted an experiment to compare the rates of evaporation of water in containers X, Y and Z. He poured 50 cm<sup>3</sup> of water into each of the three containers. He placed the set-ups under a fan for a day.



Use the figures provided in the box to complete the table below to show the volume of water left at the end of the experiment. [1]

40 cm<sup>3</sup> 28 cm<sup>3</sup> 18 cm<sup>3</sup>

	Volume of water left in the container (cm <sup>3</sup> )		
ontainer	At the start of experiment	After a day	
x	50		
Y	50		
z	50		
Y Z	50		

Container	At the start of experiment	After a day	Α.	40 cm
<	50			
i			Р	19.00
Container	At the start of experiment	After a day	D.	
(	50			
-				
Container	At the start of experiment	After a day	C.	28 cm
7	50			
	container	ContainerAt the start of experiment50ContainerAt the start of experiment50ContainerAt the start of experiment50ContainerAt the start of experiment50	ContainerAt the start of experimentAfter a day5050ContainerAt the start of experimentAfter a day5050ContainerAt the start of experimentAfter a day5050	ContainerAt the start of experimentAfter a dayA.505050ContainerAt the start of experimentAfter a day5050C.ContainerAt the start of experimentAfter a dayContainerAt the start of experimentAfter a dayContainerAt the start of experimentAfter a day

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Steven conducted an experiment to compare the rates of evaporation of water in containers X, Y and Z. He poured 50 cm<sup>3</sup> of water into each of the three containers. He placed the set-ups under a fan for a day.



Explain why the following actions would help make the experiment a fair test. 2 marks)

i) Using same amount of water in each container.

ii) Placing all three containers at the same place.

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 graph below shows the changes in the mass of the wet t-shirt over a period of time.

Wet t-shirt



Which part of the graph above (PQ, QR or RS) shows the highest rate of evaporation of water during the day? Explain your answer. [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.

The diagram below shows a wet t-shirt hung on a clothesline. Steven measured the mass of the shirt every hour.