## ClassMarker

## Primary 4 - Term 4 Science (Tao Nan)



## Test Introduction

+ Add Introduction

57 Questions (59 Points)

Test Questions
1 Test Assignment

## Question 1

Booklet A (22 x 2 marks)
For each question from 1 to 22 , four options are given. One of them is the correct answer.
Which of the following substances has a fixed shape?
A) air
(B) rock
C) milk
D) water

## Question Type:

## Multiple Choice

Randomize Answers: No
Date Added: Mon 30th Nov 2020
Last Modified:
N/A
QID\#: $\quad 25,133,748$

## 

## Question 2

Which part, (1), (2), (3) or (4), helps to hold the plant upright?

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

## Question Type:

Multiple Choice
Randomize Answers:
Date Added: Mon 30th Nov 2020
Last Modified:
QID\#:
25,133,752

```
** Answers Edit | &n Duplicate|^Used In | है Reorder
```

Question 3

In which part of the digestive system is food absorbed into the blood?
A) mouth
B) stomach
C) small intestine
D) large intestine

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,133,779$ |

$k^{x}$ Answers | Edit | CoDuplicate | 1 Used In | $\stackrel{\text { Reorder }}{ }$

Question 4

The set-up below shows a torch shining on a metal box.

torch
$\because$

metal box

screen

Which one of the following would likely be seen on the screen?
(1)

(3)

(2)

(4)

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

## Question Type:

Randomize Answers:
Date Added: Last Modified: QID\#:

Multiple Choice
No
Mon 30th Nov 2020
Mon 30th Nov 2020
25,133,787

```
*^Answers | Edit | ED Duplicate | ^ Used In | जि}\mathrm{ Reorder
```

Question 5

Which of the following is not a source of heat?
A) the sun
B) a lit lamp
C) a candle flame
D) a woollen jacket

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,133,796$ |

$«^{\pi}$ Answers | Edit | Duplicate | 1 Used In | $\stackrel{\text { Reorder }}{ }$

## Question 6

Ali is taking a pot of baked potato out from the oven as shown below.


He is able to hold the pot using his fabric gloves. This is because fabric is a
$\qquad$ -.
A) waterproof material
B) non-magnetic material
C) poor conductor of heat
D) good conductor of heat

Question Type:
Randomize Answers:
Last Modified: N/A
QID\#: $\quad 25,133,806$
$x^{*}$ Answers | Edit | 级Duplicate
Question 7
2 pts

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

| (1) a metal ruler | (2) a wooden ice cream stick |
| :---: | :---: |
|  | $\qquad$ |
| (3) a piece of glass | (4) a handkerchief |
|  |  |

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

## Question Type: <br> Multiple Choice

Randomize Answers: No
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#:
25,133,812

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



Which one.of the following is the most suitable heading for group A?
A) bird
(B) plant
C) fungi
D) insect

## Question Type:

Randomize Answers:
Date Added:
Last Modified:
QID\#:

## Multiple Choice

No
Mon 30th Nov 2020
N/A
25,133,823
$\qquad$

A sealed container was filled with $300 \mathrm{~cm}^{3}$ of air and a syringe was filled with $100 \mathrm{~cm}^{3}$ of water.


All the water in the syringe was pumped into the sealed container,
What would be the final volume of air in the container after all the water was pumped in?
A) 100 cm 3
B) 200 cm 3
C) 300 cm 3
D) 400 cm 3

Question Type:
Randomize Answers:
Last Modified: N/A
QID\#:
25,133,828
$*^{\pi}$ Answers

Diagram 1 shows a toy with a rolled paper tube. When air was blown into it, the paper tube straightened as shown in Diagram 2.
paper tube bloats up and


Diagram 1


Diagram 2

Which of the following best explains why the paper tube bloats up and straightens out?
A) air has mass
B) air occupies space
C) air has a fixed shape
D) air does not have a fixed volume

Question Type:
Randomize Answers:
Last Modified: N/A
QID\#: $\quad 25,133,835$

## $\mathbf{k}^{\star}$ Answers | Edit | EDuplicate 4 Used In $\mid \stackrel{\rightharpoonup}{*}$ Reorder

## Question 11

The diagram below shows the life cycle of a mosquito.


Which of the following correctly describes the characteristic of the mosquito at slages A and B ?

|  | Stage A | Stage B |
| :---: | :---: | :---: |
| $(1)$ | feeds | does not feed |
| $(2)$ | can reproduce | cannot reproduce |
| $(3)$ | does not have wings | has wings |
| $(4)$ | does not look like adult | Jooks like adult |

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

## Question Type:

Multiple Choice
Randomize Answers:
Date Added.
Last Modified:
QID\#:
Mon 30th Nov 2020
N/A
25,133,842

## $«^{\star}$ Answers | Edit | Duplicate (4) Used In | $\stackrel{\rightharpoonup}{\text { Reorder }}$

Question 12

The characteristics of Animals $X, Y$ and $Z$ are shown in the table below. A tick "r" shows that the animal has that characteristic.

| Characteristics | Animals |  |  |
| :---: | :---: | :---: | :---: |
|  | $x$ | $\dot{Y}$ | $z$ |
| Has a 3-stage life cycle. | $\checkmark$ | $\checkmark$ |  |
| Lays eggs. |  | $\checkmark$ | $\checkmark$ |
| The yourig looks like the adult. | $\checkmark$ |  |  |

What can animals $X, Y$ and $Z$ be?

|  | $x$ | $y$ | $z$ |
| :---: | :---: | :---: | :---: |
| (1) | beetle | human | $\ddots$ frog |
| (2) | frog | beetie | human |
| $(3)$ | human | beetle | frog |
| (4) | human | frog | beetle |

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

## Question Type: <br> Multiple Choice

Randomize Answers: No
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,133,851$

## Question 13

Three similer plants $\mathrm{A}, \mathrm{B}$ and C of equal mass wore given different conditions as shown below. The plants were placed near a window and watered with the same amount of waler dally.


After lour months, the mass of the plants were measured. Which graph shows the correcf mass of the plants?
. (1)

(3)
(2)

(4)


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

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,134,043$ |

## Question 14

Sarah tested the amount of light reflected by 4 different materials, A, B, C and D, using a light sensor and recorded the results in the table below.

| Material | Amount of light detected by <br> the light sensor (units) |
| :---: | :---: |
| A | 320, |
| B | $120 \quad 3$ |
| C | 270 ? |
| D | 804 |

Sarah wanted to make a lamp plate as shown in the diagram below.


Which material, $\mathrm{A}, \mathrm{B}, \mathrm{C}$ or D , is most suitable for the lamp plate?
A) A
B) $B$
C) C
D) $D$

Question Type:
Multiple Choice
Randomize Answers: No
Date Added: Mon 30th Nov 2020
Last Modified:
N/A
QID\#:

25,134,053

Jane looked at a drink can as shown in the diagram below.


She drew what she saw through four different types of screens, $\mathrm{W}, \mathrm{X}, \mathrm{Y}$ and Z , which are as shown in the diagrams below.


Which screen should Jane use for a projector screen in a classroom?

A) screen W
B) $s$ screen $X$
C) $\operatorname{screen} Y$
D) $\operatorname{screen~} \mathrm{Z}$

## Question Type:

Randomize Answers:
Date Added: Mo
Last Modified: N/A
QID\#:
25,134,065

Ali conducted an experiment in a dark room to find out how the length of the shadow changed when the metal block changed position.


When the lamp was switched on, Ali observed that the length of the shadow as shown above.

He then changed the positions of the metal block. Which one of the following correctly showed the length of the shadow?

A) 1
B) 2
$\checkmark$ C) 3
D) 4

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,134,075$ |

[^0]Question 17

Mingein left a bowl of ice cream on a table in the kitchen that was at room temperature.


## Which one of the following would Mingxin observe after 5 minutes?

A) The temperature of the glass bowl increased
B) The temperature of the ice cream decreased
C) The temperature of the metal spoon decreased
D) The temperature of the surrounding air increased

Question Type:
Randomize Answers:

Last Modified: N/A
QID\#: $\quad 25,134,090$

## $\mathbf{k}^{\star}$ Answers | Edit | Duplicate $\uparrow$ Used In $\stackrel{\rightharpoonup}{\boldsymbol{*}}$ Reorder

## Question 18

Four similar beakers, (1). (2), (3) and (4), contain differont amount of water. Each of them is placed at the same height above a flame as shown below.

Which-beaker would take the longest time to reach $100^{\circ} \mathrm{C}$ ?

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

Randomize Answers: No

| Date Added: | Mon 30th Nov 2020 |
| :--- | :--- |
| Last Modified: | N/A |

Last Modified: N/A
QID\#: $\quad 25,134,098$


#### Abstract

$\mathbf{k}^{\star}$ Answers | Edit | 约Duplicate | $\boldsymbol{\uparrow}$ Used $\ln \mid \stackrel{\rightharpoonup}{\text { v }}$ Reorder


## Question 19

4 dishes are made of different materials, P, Q, R and S. Siti heated a piece of wax for 5 minutes on each of the dishes as shown in the diagram below


She then separated the solid wax from the liquid wax and measured the mass of the solid wax left. Her results were recorded in the table below.

| Material | Mass of wax at the start of <br> the experiment (grams) | Mass of solid wax left after 5 <br> minutes (grams) |
| :---: | :---: | :---: |
| $P$ | 20 | 18 |
| Q | 20 | 10 |
| $R$ | 20 | 15 |
| $S$ | 20 | 12 |

Based on the results of her experiment, which one of the following statements is correct?
A) Material $P$ is the best conductor of heat
B) Material $Q$ is the poorest conductor of heat
C) Material $R$ is a better conductor of heat than material $S$
D) Material R is a poorer conductor of heat than material Q

Question Type:
Randomize Answers:

Last Modified: N/A
QID\#: $\quad 25,134,116$
$*^{\boldsymbol{x}}$ Answers | Edit | E Duplicate | 4 Used In | 令 Reorder
Question 20

## Joe wanted to set up an electromagnet as shown below.



However, the metal bar did not attract any iron nails. Why?
A) The metal bar is made of iron
B) The nails are made of magnetic material
C) The metal bar is made of non-magnetic material
D) There are too many coils of wire around the metal bar

Question Type:

## Multiple Choice

Randomize Answers: No
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,134,145$

## $\mathbf{k}^{\boldsymbol{*}}$ Answers

- Edit Duplicate

4 Used In | $\stackrel{\rightharpoonup}{\text { R Reorder }}$
Remove From Test
Question 21

A string was attached to two supports as shown below. Identical weights of 1 kg each were added untii it broke. Four strings, A, B, C and D were tested. The strings were of the same thickness and length.


The results of the experiment were shown in the table below.

| String | Number of weights hung just bafore the string broke |
| :---: | :---: |
| A | 20 |
| B | 15 |
| C | 5 |
| D | 10 |

Which string can hold a hanging picture frame of 15 kg without the string breaking as showh below?

A) A
B) $B$
C) C
D) $D$

## Question Type:

Multiple Choice
Randomize Answers: No
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,134,161$
$\mathbf{k}^{\wedge}$ Answers | Edit | Con Duplicate | 4 Used In | 合 Reorder

Question 22

Diagram 1 shows a balance with two objects, $X$ and $Y$, hung at both ends with the same distance from the centre.


Diegram 1

Diagram 2 shows what happens to the balance when a magnet is placed under
object $Y$.


Which one of the following statements is correct?
A) $X$ is lighter than $Y$
B) Mass of $Y$ increased
C) $Y$ has a greater mass than $X$
D) Y is made of magnetic material

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,134,177$ |

$«^{\star}$ Answers | Edit 饮Duplicate | Used In | $\stackrel{\rightharpoonup}{*}$ Reorder

## Question 23

## Booklet B

This section is designed for extended answers that parent/ teacher will have to assign and guide child to attempt after the test has been completed.
Grading: This question type is not graded on this system and will not affect the final score as it was designed in such a way that it requires manual assistance.

The picture below shows a cup of milk.


Complete the sentences to state if the parts are solid, Fiquid or gas,
(a) The cup is a $\qquad$

Accepted answers:
$\checkmark$ solid
$\checkmark$ The cup is a solid

Question Type: Free Text
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,134,871$
$«^{\star}$ Answers | Edit | EnDuplicate | 1 Used In | 合 Reorder
Remove From Test
Question 24

Milk is a $\qquad$

Accepted answers:
liquid
Milk is a liquid

Question Type: Free Text
Date Added: Mon 30th Nov 2020
Last Modified:
QID\#:
25,134,877


Question 25

The diagram below shows the stages in the life cycie of a cockroach.

(a) Name stage $P$.

Accepted answers:
nymph

| Question Type: | Free Text |
| :--- | :--- |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,134,880$ |

## $\approx^{\star}$ Answers | Edit | E Duplicate | $\boldsymbol{4}$ Used $\ln \mid$ 合 Reorder

## Question 26

State another animal that has a similar life cycle as a cockroach.

Accepted answers:
chicken

Question Type: Free Text
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#:
25,134,888


Question 27

Look at the diagram below.


Tick ( $\sqrt{ }$ ) the characleristics in the table below that help to idenlify that it is an insect.

It is an insect because it $\qquad$ .
A) can fly
B) has wings
$\checkmark$ C) has 3 pairs of legs
$\checkmark$ D) has three body parts

Question Type: Multiple Response
Randomize Answers: No
Grade style: Full points if all answers are correct
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,134,905$
$«^{\star}$ Answers | Edit | E. Duplicate | 1 Used In | $\hat{\text { R Reorder }}$

Question 28

Amy placed a magnet near a steel rod as shown in the diagram below.

magnet
The steel rod moves towards the magnet.
(a) The magnet exerts a $\qquad$ force on the steel rod. [1]

## Accepted answers:

magnetic
The magnet exerts a magnetic force on the steel rod

Question Type: Free Text
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,134,928$

## 

## Question 29

Amy's observation shows that steel is a $\qquad$ material.
A) strong
B) waterproof
C) magnetic

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,134,938$ |

Victor poured sand into a toy submarine and dropped it into a container of water as shown in the diagram below. He measured the distance, $d$, from the buttom of the container to the base of the foy submarine. He repeated the experiment by pouring different amounts of-sand into the toy submarine.

container of water

The resull of his experiment is shown in the fable below.
a) Complete the table below

| Mass of sand in the toy submarine (g) |  |
| :---: | :---: |
| 10 | Distance $d(\mathrm{~cm})$ |
| 20 | 25 |
| 30 |  |
| 40 | 15 |

Accepted answers:
20

| Question Type: | Free Text |  |  |
| :---: | :---: | :---: | :---: |
| Date Added: | Mon 30th Nov 2020 |  |  |
| Last Modified: | N/A |  |  |
| QID\#: | 25,134,952 |  |  |
| ${ }^{7}$ Answers | Edit \| Duplicate | 1 Used In | - Reorder |

## Question 31

What is the relationship between the mass of the sand and distance $d$ ?

| Question Type: | Essay |
| :--- | :--- |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,134,966$ |

[^1]As the mass of the sand increases, distance (d) decreases.

Incorrectly answered feedback
As the mass of the sand increases, distance (d) decreases.

## $\boldsymbol{*}^{\boldsymbol{\pi}}$ Answers | Edit | C马D Duplicate | 4 Used In | 令 Reorder

Victor dropped the toy submarine on the fioor and it cracked.


When he placed the toy submarine back into the water, he observed bubbles came out from the crack, After a while, the toy submarine sank deeper,
c) Explain why these happened.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: 25,134,993

## Correctly answered feedback

The crack allowed air to escape and the water from the container could occupy the space in the toy submarine that was previously occupied by air. Water in the toy submarine has mass, so the toy submarine sank deeper after a while.

## Incorrectly answered feedback

The crack allowed air to escape and the water from the container could occupy the space in the toy submarine that was previously occupied by air. Water in the toy submarine has mass, so the toy submarine sank deeper after a while.

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** Answers | Edit | & Duplicate | \ Used In | \hat{v}\mathrm{ Reorder}
```

Azman placed four seeds into five identical containers A, B, C, D and E. He provided different conditions for each of the containers of seeds as shown in the table below. The five set-ups contained the same amount of cotton wool.


| Container | Conditions |  |
| :---: | :---: | :---: |
|  | Where is it placed? | Is it watered? |
| A | Near window | Watered daily |
| B | Near window | Not watered |
| C | In a refrigerator | Watered daily |
| D | In a refrigerator | Not watered |
| E | In a cupboard | Watered dally |

a) In which container(s) would the seeds germinate?
(A) A
B) $B$
C) C
D) $D$
E) E

Question Type:
Randomize Answers:
Grade style: Full points if all answers are correct
Date Added: Mon 30th Nov 2020
Last Modified:
QID\#:

## Multiple Response

No

N/A
25,135,002

Correctly answered feedback
A

Incorrectly answered feedback
B

## $«^{\star}$ Answers | Edit | en Duplicate | $\uparrow$ Used In | 今 Reorder

Remove From Test

## Question 34

Azman wants to find out if the seeds need water to germinate.
Which two containers can Asman use?
(A) A
B) $B$
C) C
D) $D$
E) $E$

## Question Type:

Randomize Answers:
Grade style:
Date Added:
Last Modified:
QID\#:

No Mon 30th Nov 2020
Multiple Response

Il answers are correct

N/A
25,135,011

## Question 35

State another variable that must be kept constant to ensure a fair test.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified:

QID\#:
25,135,020

Correctly answered feedback
The presence of oxygen

Incorrectly answered feedback
The presence of oxygen

## Study the picture of a plant below.


a) Label Part X .

Accepted answers:
$\checkmark$ roots

| Question Type: | Free Text |
| :--- | :--- |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,135,031$ |

## $\boldsymbol{«}^{\boldsymbol{\pi}}$ Answers | Edit | Duplicate | 4 Used In | 令 Reorder

Remove From Test

## Question 37

Describe the function of $Y$

Question Type: Essay

| Date Added: | Mon 30th Nov 2020 |
| :--- | :--- |
| Last Modified: | N/A |
| QID\#: | $25,135,036$ |

QID\#:

Correctly answered feedback
Part $Y$ helps the plant trap sunlight to make food for the plant

Incorrectly answered feedback
Part Y helps the plant trap sunlight to make food for the plant

Part X absorbs water and mineral salts from the ground. Give another function of Part X .

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,135,042$

Correctly answered feedback
Part X helps to anchor the plant firmly to the ground

Incorrectly answered feedback
Part X helps to anchor the plant firmly to the ground

## 

The graph below shows the amount of food at the different parts of a humar
digestive system.

a) Which part, $X$ or $Y$, in the graph represents the amount of food that is undigested? Give a reason for your answer.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,135,051$

Correctly answered feedback
Part X, In T, there was only undigested food as it was the large intestine

Incorrectly answered feedback
Part X, In T, there was only undigested food as it was the large intestine
$\mathbf{k}^{\wedge}$ Answers | Edit | 约Duplicate | 4 Used In | $\hat{\text { R Reorder }}$
Remove From Test

## Question 40

Fill in $P, Q, R, S$ and/or $T$ in the boxes of the diagram below to match the parts in a human digestive system shown in the abbove graph. You do not need to use all the letters provided.

A) $P$
B) $Q$
C) $R$
D) S
E) T

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | Mon 30th Nov 2020 |
| QID\#: | $25,135,073$ |


A) $P$
B) $Q$
C) $R$
D) s
$\checkmark$ E) T

## Question Type:

Multiple Choice
Randomize Answers: No
Date Added:
Mon 30th Nov 2020
Last Modified:
N/A
QID\#:
25,135,076

[^2]
(A) $P$
B) $Q$
C) $R$
D) S
E) T

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,135,083$ |

$x^{\pi}$ Answers | Edit | Enplicate | Used In | $\stackrel{\text { Reorder }}{ }$

A) $P$
B) $Q$
C) $R$
D) s
E) T

| Question Type: | Multiple Choice |
| :--- | :--- |
| Randomize Answers: | No |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,135,089$ |

$\mathbf{*}^{\pi}$ Answers Edit E E Duplicate $\mathbb{4}$ Used In | $\stackrel{\rightharpoonup}{\text { Reorder }}$

Question 44

Mel made a statement below:
"There are two parts in the human digestive system that carries out digestion"
Explain why Mel's statement is incorrect.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,135,118$

## Correctly answered feedback

The mouth, stomach and small intestine all carry out digestion, so there are three parts in the human digestive system that carries out digestion.

## Incorrectly answered feedback

The mouth, stomach and small intestine all carry out digestion, so there are three parts in the human digestive system that carries out digestion.

## Question 45

Nurul had two similar sheets, $Y$ and $Z$, made of the same material. She placed the sheets on a heater as shown below.


At the start, sheets $Y$ and $Z$ were of the same length. After 20 minutes, sheet $Z$ became longor than sheet $Y$.
(a) Explain why sheet $Z$ became longer than shoet $Y$.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: 25,135,131

Correctly answered feedback
Sheet $Z$ gained more heat than sheet $Y$ as it was closer to the heater, so it expanded more than sheet $Y$ and become longer than sheet $Y$

Incorrectly answered feedback
Sheet $Z$ gained more heat than sheet $Y$ as it was closer to the heater, so it expanded more than sheet $Y$ and become longer than sheet $Y$

## Question 46

Study the scenarios below. Write down your explanation why the tiles at location $P$ cracked but not the tiles at location $Q$.

| Location | P |
| :--- | :---: | :---: |
| Before 10 <br> hours of <br> high heat |  |
| After 10 <br> hours of <br> high heat |  |

> (b) Explaín why files at Q did not crack unlike tiles at P
[2]

[^3]| Date Added: | Mon 30th Nov 2020 |
| :--- | :--- |
| Last Modified: | N/A |
| QID\#: | $25,135,142$ |

Correctly answered feedback
The tiles at $Q$ had gaps between each tile for expansion when the tiles gained heat and expand on a hot day. However at $P$, there is no gaps for the tiles to expand so the tiles at $P$ cracked.

## Incorrectly answered feedback

The tiles at $Q$ had gaps between each tile for expansion when the tiles gained heat and expand on a hot day. However at P, there is no gaps for the tiles to expand so the tiles at P cracked.

## 

## Question 47

The length of a metal spoon was measured before placing into the refrigerator for 12 hours as shown in the diagram below.

(c) Do you think the length of the spoon will be shorter, longer or the same after 12 hours in the refrigerator? Explain why.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: 25,135,160

Correctly answered feedback
The length of the spoon will become shorter. The spoon will lose heat to the surrounding air in the refrigerator and contract, causing the spoon length to be shorter.

Incorrectly answered feedback
The length of the spoon will become shorter. The spoon will lose heat to the surrounding air in the refrigerator and contract, causing the spoon length to be shorter.

```
*`Answers | Edit | EDDuplicate | \ Used In | * Reorder
```


## Tom has a glass cup with thick walls as shown below.


(a) Tom pours some hot tea into the glass cup. He touches the outer side of the cup with his hand and it feels warmer with time. Explain why.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: 25,135,176

Correctly answered feedback
The glass cup gained heat from the hot tea. The heat is then lost to Tom's hand. Hence, Tom's hand will feel warmer with time.

Incorrectly answered feedback
The glass cup gained heat from the hot tea. The heat is then lost to Tom's hand. Hence, Tom's hand will feel warmer with time.

## $\mathbf{*}^{\wedge}$ Answers | Edit | EDDplicate | 4Used In | 合 Reorder

## Question 49

Tom places a plastic lid over the glass cup as shown in the diagram below.

(b) Explain how the plastic lid helps to keep the fea warm for a longer period of
time.

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: 25,135,186

Correctly answered feedback
It slows down hot tea from losing heat to the surrounding, as plastic is a poor conductor of heat.

Incorrectly answered feedback
It slows down hot tea from losing heat to the surrounding, as plastic is a poor conductor of heat.

The diagram below sbows two similar glass cups at different temperatures after $150 \mathrm{~cm}^{3}$ of tea at $90^{\circ} \mathrm{C}$ was poured into them at the same time.

(c) Which cup of tee will remain warm longer? Explain why.

| Question Type: | Essay |
| :--- | :--- |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,135,197$ |

Correctly answered feedback
Glass cup Y. Cup Y has a warmer temperature than glass cup Z, so the hot tea will not lose heat to the cup quickly

Incorrectly answered feedback
Glass cup Y. Cup Y has a warmer temperature than glass cup Z, so the hot tea will not lose heat to the cup quickly

## $\boldsymbol{*}^{\boldsymbol{n}}$ Answers | Edit | 约Duplicate | 4 Used In | $\hat{*}$ Reorder

## Question 51

Air is a poor conductor of heat. Tom poured hot tea into a double-walled glass cup with air between the walls.

(d) Tom is able to hold the oup containing hot tea without burning his hand. Explain why he is able to do so.

The cup has double walls and would not gain heat from the hot tea quickly as the air between the inner and outer wall is a poor conductor of heat.

Incorrectly answered feedback
The cup has double walls and would not gain heat from the hot tea quickly as the air between the inner and outer wall is a poor conductor of heat.

## $\star^{\star}$ Answers | Edit | Euplicate | 4 Used In | $\boldsymbol{*}$ Reorder

## Question 52

Shaun wants to make a mirror. He needs to place three materials as shown in the diagram below.


Shaun has conducted an experiment to find out the smount of light that can pass through the type of glasses, A, B and C. The table below shows hus results.

| Glass | Amount of light that can pass <br> through the glass (units) |
| :---: | :---: |
| A | 1250 |
| B | 2500 |
| C | 1000 |

(a) Based on the results, which glass, A, B or C, is most sultable for making the
glass layer of the mirror as shown above? Explain upur chole
glass layer of the mirror as showm above? Explain your choice
[1]

| Question Type: | Essay |
| :--- | :--- |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,135,225$ |

Correctly answered feedback
Glass B, it is the most transparent thus more light will be reflected for a clearer image.

Incorrectly answered feedback
Glass B, it is the most transparent thus more light will be reflected for a clearer image.

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**Answers | Edit | {ी}\mathrm{ Duplicate | 4 Used In | 仑ै Reorder
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As Shaun drives his car on the road, he is able to see the tree behind using the side mirrors of the car.

(b) Draw the arrow(s) $\langle\longrightarrow$ on the three dotted lines in the diagram above to show the path of light.

Please type "done" to proceed to the next question
Question Type: Essay
Date Added: Mon 30th Nov 2020

Last Modified: N/A
QID\#: $\quad 25,135,233$


Using the diagram shown above, complete the explanation below on how Shaun can see the tree in his side mirror. (You may use more that one word for each blank)
$\qquad$ from the sun is $\qquad$ from the tree to the side mirror then into $\qquad$

Question Type: Essay
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,135,251$

Correctly answered feedback
Light from the sun is reflected from the tree to the side mirror then into Shaun's eyes

Incorrectly answered feedback
Light from the sun is reflected from the tree to the side mirror then into Shaun's eyes

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* Answers | Edit | &DDuplicate | 4 Used In | 绍Reorder
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## Question 55

Give one property of light needed for Shaun to see the tree using his side mirrors.

| Question Type: | Essay |
| :--- | :--- |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,135,254$ |

Correctly answered feedback
Light travels in a straight line

Incorrectly answered feedback
Light travels in a straight line

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**Answers Edit | Duplicate 4 Used In | * Reorder
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Minghan conducted an experiment using three different materials cut intc different shapes, $P, Q$ and $R$. One of the materials allows some light to pass through while the other two do not allow light to pass through.


P, Q and R were placed at positions, 1, 2 and 3 , in a line, away from the torch.
The experiment was conducted in a dark room.


The diagram below shows what was seen on the screen.

(a) Based on the result above, fill in the blanks with 1,2 and 3 to show where materials P, Q and R, had been placed.
Clue

Question Type: Matching
Grade style:
Shuffle Mode: Shuffle Matches Only
Date Added: Mon 30th Nov 2020
Last Modified: N/A
QID\#: $\quad 25,135,265$
$\star^{\star}$ Answers | Edit | 约Duplicate | 4 Used In | $\stackrel{\rightharpoonup}{*}$ Reorde
Question 57

The diagram befow shows a tank with a lid and some plants in it.

(b) Material P is more suitable than material Q and R to make the tank and its lid so that the plants can grow. Explain why.

| Question Type: | Essay |
| :--- | :--- |
| Date Added: | Mon 30th Nov 2020 |
| Last Modified: | N/A |
| QID\#: | $25,135,320$ |

Correctly answered feedback
Material $P$ was made of a translucent material, so the leaves of the plant could receive sunlight to make for the plant.

Incorrectly answered feedback
Material $P$ was made of a translucent material, so the leaves of the plant could receive sunlight to make for the plant.

[^4]
[^0]:    $\mathbf{x}^{\wedge}$ Answers | Edit | E. Duplicate | 1 Used In | $\hat{\boldsymbol{*}}$ Reorder

[^1]:    Correctly answered feedback

[^2]:    $k^{*}$ Answers

[^3]:    Question Type: Essay

[^4]:    ${ }^{\star}$ Answers

