

**Ai Tong School
P4 Science
2024 Term 3 Review**

Name: _____ () Class: 4 _____

Date: _____ Marks: _____ /25

Duration: 35 minutes Parent's Signature: _____

Section A (14 marks)

For each question from 1 to 7, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer in the OAS provided.

- 1 Study the classification table below.

Light source	Non-light source
fire	mirror
lighted torch	highlighter
lightning	firefly
moon	battery

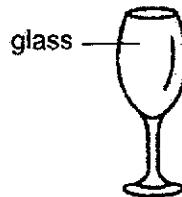
Which of the following has/have been classified wrongly?

- (1) firefly only
- (2) firefly and moon only
- (3) lightning and battery only
- (4) firefly and highlighter only

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2 The diagram shows a glass.



The glass can be seen because it _____.

- (1) is opaque
- ✓(2) reflects light
- ✗(3) absorbs light
- ✗(4) is a source of light

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3 Which of the following is not a source of heat?

- (1) A jacket



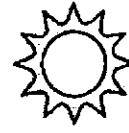
- ✓(2) Fire



- ✓ (3) A cup of hot tea



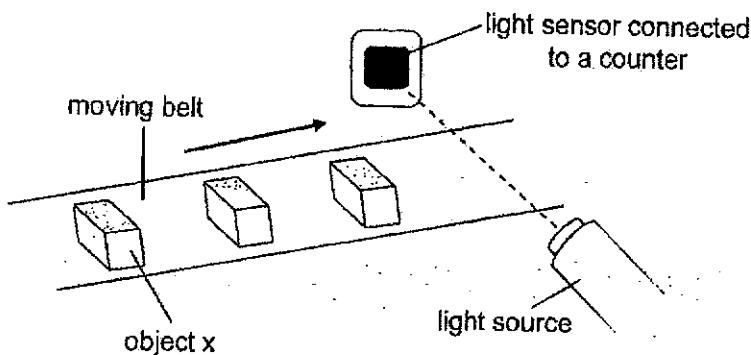
- ✓ (4) The Sun



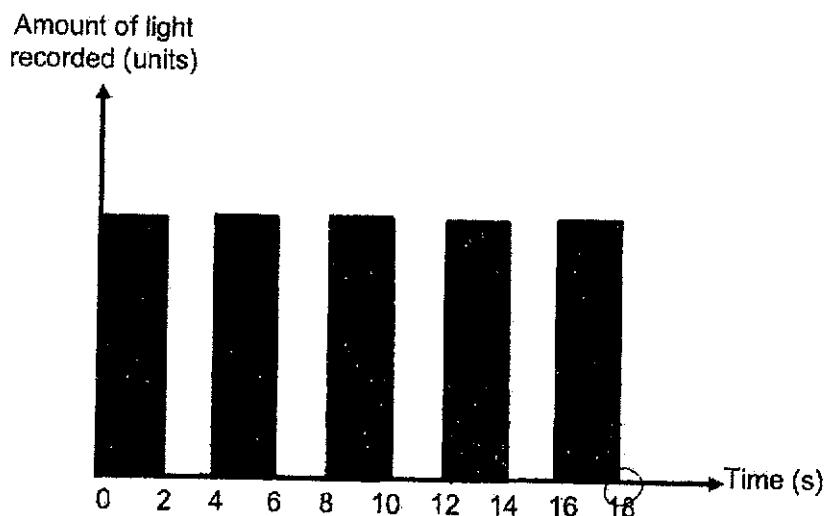
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- 4 A light source and a light sensor are set up to count the number of object X on a moving belt.



When object X moves between the light source and the sensor, it blocks the light from reaching the sensor. The amount of light recorded over a period of time is shown in the graph below.



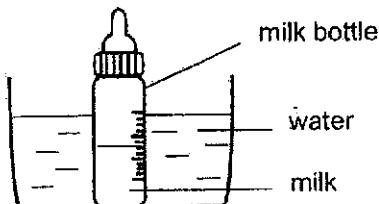
Based on the graph above, how many object X passed the sensor within a period of 18 seconds?

- (1) 4
- (2) 5
- (3) 9
- (4) 18

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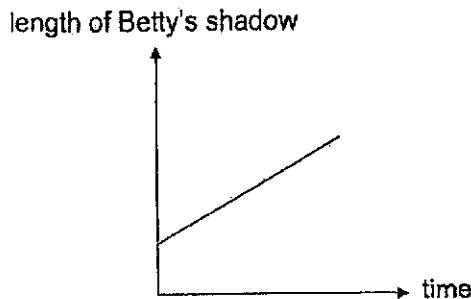
- 5 A bottle of milk at 30°C was placed in a basin of water as shown in the diagram below.



After two minutes, the temperature of the milk became 50°C.
What was the likely temperature of the water in the basin at first?

- (1) 10°C
 - (2) 30°C
 - (3) 50°C
 - (4) 80°C
- ()

- 6 In the experiment, Mary measured the length of Betty's shadow from a lighted lamp post over a period of time. Her results are shown below.



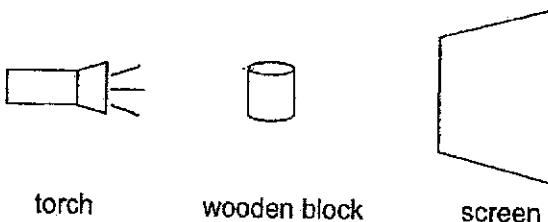
Which of the following describes the position of Betty during the experiment?

- (1) Betty stood still near the lamp post.
- (2) Betty moved towards the lamp post.
- (3) Betty moved away from the lamp post.
- (4) Betty moved towards then moved away from the lamp post.

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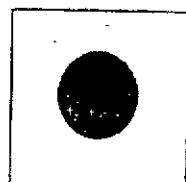
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- 7 The set-up below shows a torch shining on a wooden block.

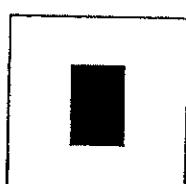


Which one of the following would likely be seen on the screen?

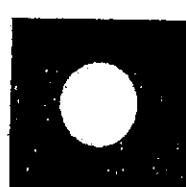
(1)



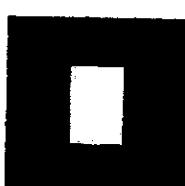
(2)



(3)



(4)



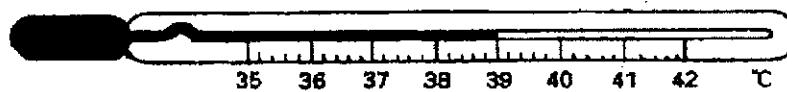
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Section B (11 marks)

For questions 8 to 11, write your answers in the spaces provided.
The number of marks available is shown in bracket [] at the end of each question or part question.

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- 8 John was running a fever so he used the instrument below to measure his body temperature.

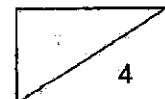


- (a) State the reading shown in the instrument. [1]

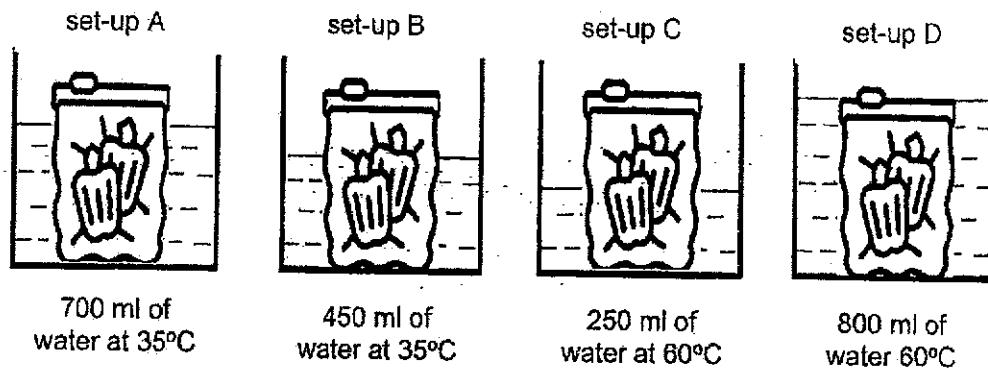
-
- (b) Name the instrument used to measure his body temperature. [1]

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- (c) John placed a cold and wet towel on his forehead for fifteen minutes. What would happen to his body temperature? Explain your answer. [2]

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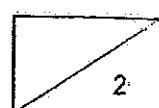


- 9 Mike conducted an experiment as shown below to find out how he could defrost a packet of frozen vegetables in the shortest time. He placed four similar packets of frozen vegetables into four similar containers containing different volumes of water at different temperatures.

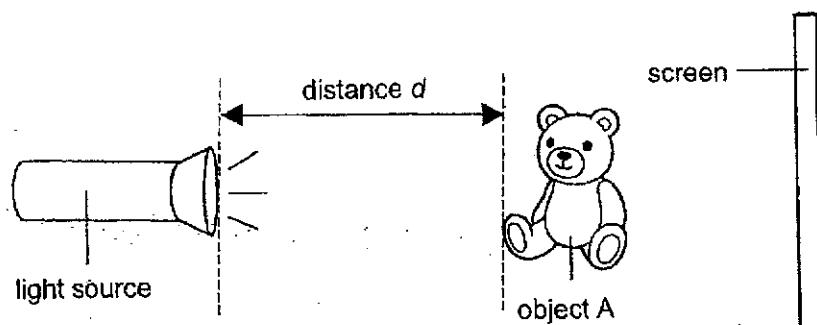


Which set-up, A, B, C or D, should Mike use if he wants the frozen vegetables to defrost in the shortest time? Explain your answer. [2]

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- 10 Mandy wanted to find out how the distance d would affect the height of the shadow of object A on the screen. When she switched on the torch, a dark shadow of object A was formed on the screen. The position of the screen is fixed throughout the experiment.



She recorded the results in the table below.

Distance d (cm)	Height of shadow (cm)
5	20
10	16
15	10

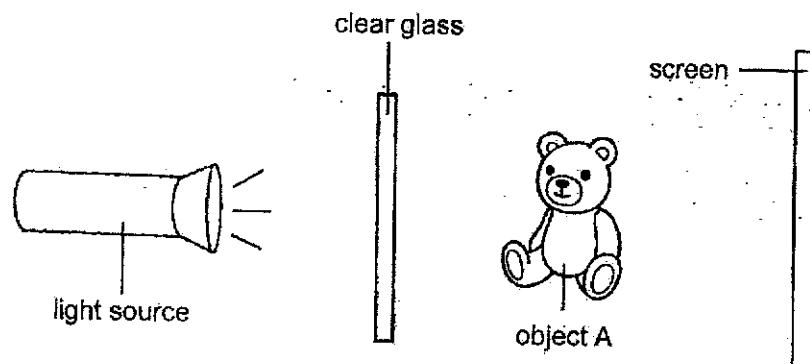
- (a) What is the relationship between the distance d and the height of the shadow? [1]

- (b) If Mandy sets distance d as 8cm, predict the height of the shadow formed on the screen. [1]

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Question 10 continues on this page ...

Without making any changes to the set-up, Mandy placed a large piece of clear glass between the light source and object A.

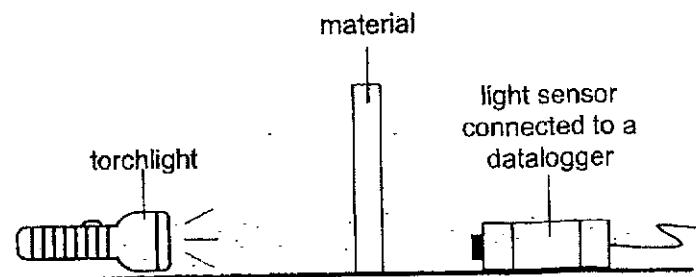


- (c) Mandy observed that a dark shadow was also formed on the screen.
Explain her observation.

[1]

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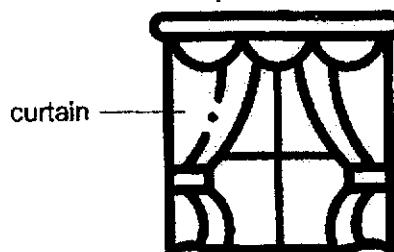
- 11 Different materials are placed one at a time between a torch and a light sensor connected to a datalogger. The amount of light passing through each material was recorded.



The table below shows the readings recorded.

Material	Amount of light recorded (unit)
A	840
B	100
C	3175
D	2460

Dan wanted to install curtains on his windows to block out as much light as possible.



Based on the experiment, which material, A, B, C or D, is most suitable to be used for making the curtains? Explain your answer.

[2]

End of Paper

- 1)2 2)2 3)1 4)1 5)4 6)3 7)2

2024 Term 3 Science WA Correction Template

Name: _____ () Date: _____
Class: _____

Qu. No Suggested Answers

8a 39 °C

8b Thermometer

8c His body temperature will decrease. His body
loses heat to the wet towel.

9 Choice: Set-up D.

Data: Container in set-up D contains the most matter
at a higher temperature.

Explain: So most heat will transfer from water
to frozen vegetables to defrost it.

10a As distance d increases,
the height of the shadow decreases.

10b 17 cm – 19 cm

10c The clear glass is transparent / allows most light to pass through it.

11 Choice: Material B.

Data: Amount of light recorded is the least

Explain: B can block out most amount of light/ B is the least transparent.

28 AUG 2024