PEI CHUN PUBLIC SCHOOL

PRIMARY 4

TERM 3 WEIGHTED ASSESSMENT 2024

SCIENCE

Time: 30 min

Name: _____ ( )

Class: Primary 4 /( )_____

Date: 21 August 2024

Science Teacher: _____

Parent's Signature: _____

SECTION A	/10
SECTION B	/10
TOTAL	/20

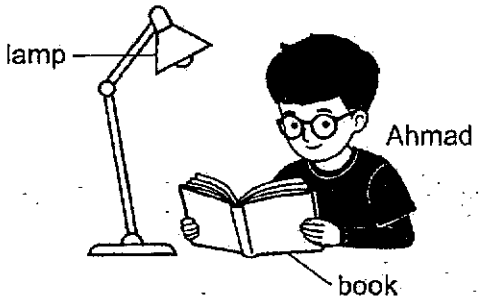
INSTRUCTIONS TO CANDIDATES

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write your answers in this booklet.

This booklet consists of 9 printed pages including the cover page.

Section A (5 × 2 marks)
For questions 1 to 5, choose the most suitable answer and write its number (1, 2, 3 or 4) in the brackets provided.

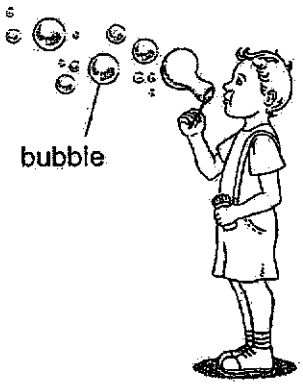
1 Ahmad can read a book in his room when the lamp is turned on.



Which of the following correctly describes the path of light that makes it possible for Ahmad to see the words in his book?

(1) from book to his eyes to lamp
(2) from book to lamp to his eyes
(3) from lamp to book to his eyes
(4) from lamp to his eyes to book ( )

2 Henry blew some soap bubbles into the air.

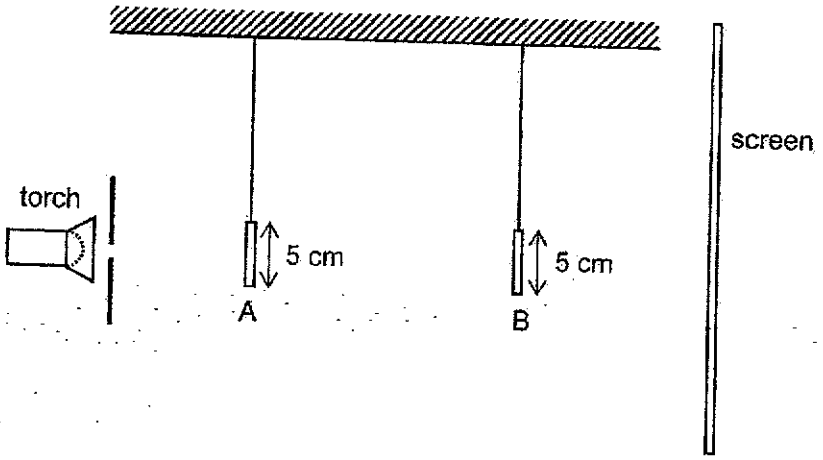


Which of the following is correct about the bubble?

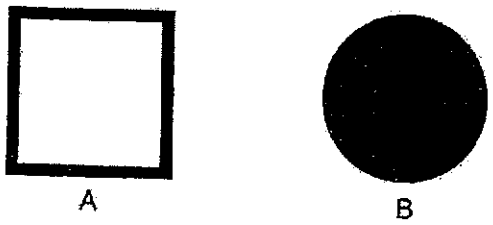
	Does it give off light?	Does it reflect light?
(1)	yes	no
(2)	yes	yes
(3)	no	no
(4)	no	yes

( )

3 The set-up below shows light shining on two wooden shapes, A and B. They are placed at different distances from the torch.

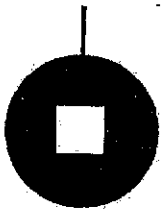


The diagram below shows the two shapes.

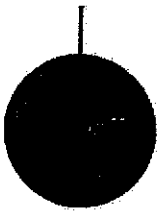


Which of the following correctly shows the shadow formed on the screen?

(1)

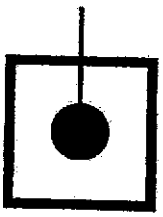


(2)



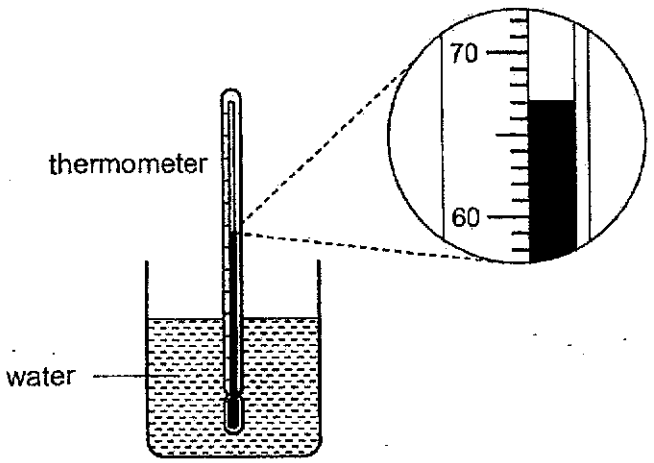
(3)

(4)



( )

4 Selvi used a thermometer to measure the temperature of water in a beaker.



What is the temperature of the water in the beaker?

(1) 63 °C
(2) 67 °C
(3) 73 °C
(4) 77 °C

( )

5 Ari poured different volumes of water at different temperatures into three identical beakers, A, B and C.

Beaker	Volume of water (ml)	Temperature (°C)
A	300	45
B	300	90
C	150	45

Which of the following statements is true?

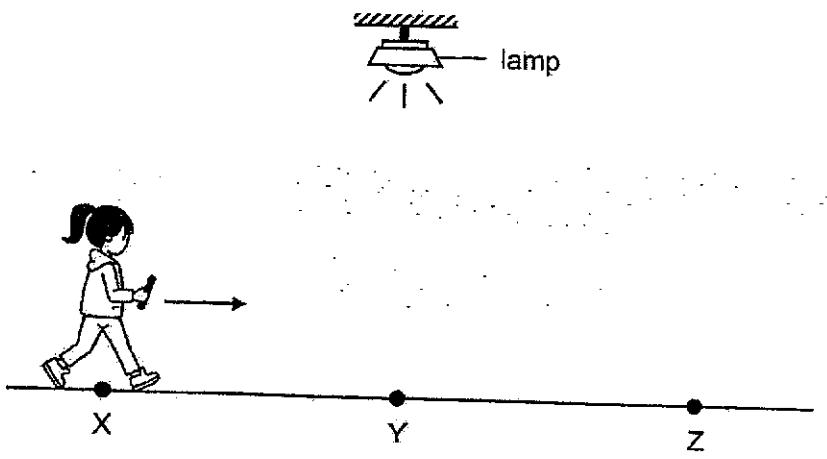
(1) The water in beakers A and B have the same amount of heat.
(2) The water in beakers A and C have the same amount of heat.
(3) The water in beaker A has more heat than the water in beaker B.
(4) The water in beaker A has more heat than the water in beaker C.

( )

End of Section A

Section B (10 marks)
For questions 6 to 9, write your answers in the spaces provided.

6 Caili walked in a straight line from X to Z as shown below. At Y, she was directly under the lamp.



(a) Explain why there was a shadow of Caili formed on the ground when she was at X. [1]

_____

_____

(b) Circle the correct answers. [1]

When Caili walked from **X to Y**, the length of her shadow on the ground

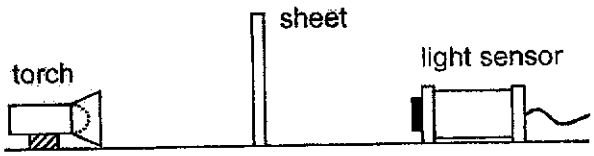
(*increased* / *remained the same* / *decreased*).

When Caili walked from **Y to Z**, the length of her shadow on the ground

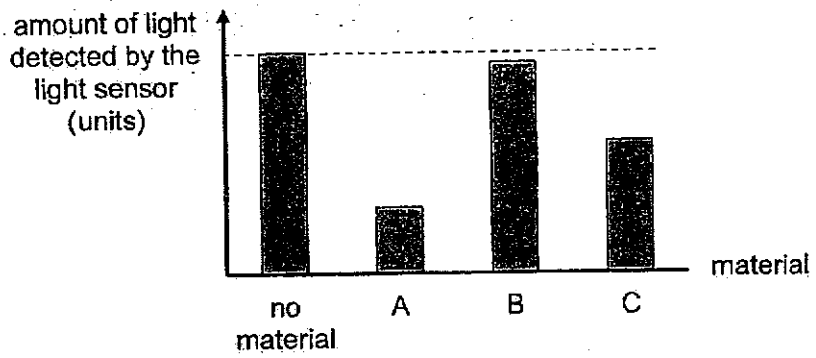
(*increased* / *remained the same* / *decreased*).

SCORE	

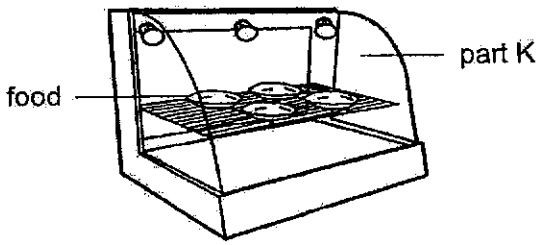
7 Yati set up an experiment in a dark room as shown. She placed a sheet made of material A between the torch and the light sensor. She recorded the amount of light detected by the light sensor.



She repeated her experiment with sheets made of materials B and C. Her results are shown below.



(a) Yati wanted to make a food display counter as shown below.



Based on her results, which material, A, B or C, is most suitable for make part K of the display counter? Explain your answer. [1]

_____

_____

SCORE

(b) Yati wanted to conduct another experiment using the same set-up. She wanted to find out how the thickness of a sheet affects the amount of light passing through it.

To conduct a fair experiment, which of the following variables should be changed, measured or kept the same?
Give your answers by ticking (✓) the correct boxes. [2]

Variable	To be changed	To be measured	To be kept the same
material of the sheet			
thickness of the sheet			
distance between the torch and the light sensor			
amount of light detected by the light sensor			

SCORE	

8 Shufen placed a spoon into a cup of ice cream.

The spoon became cold after a while.

(a) Explain why the spoon became cold. [1]

(b) Shufen took the spoon out and measured the temperature at parts P and Q.

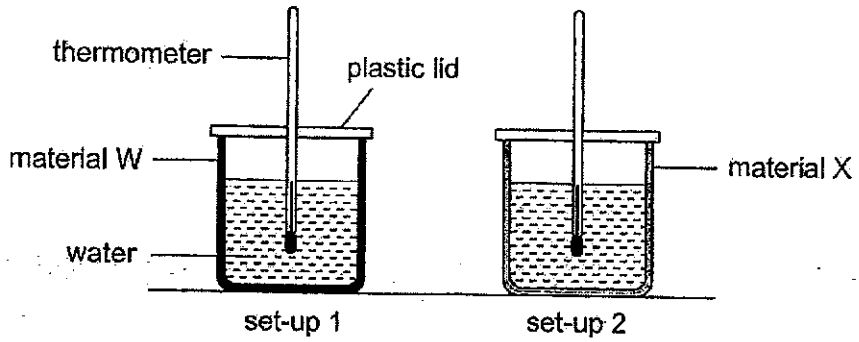
Her results are shown below.

Part	Temperature (°C)
P	3
Q	11

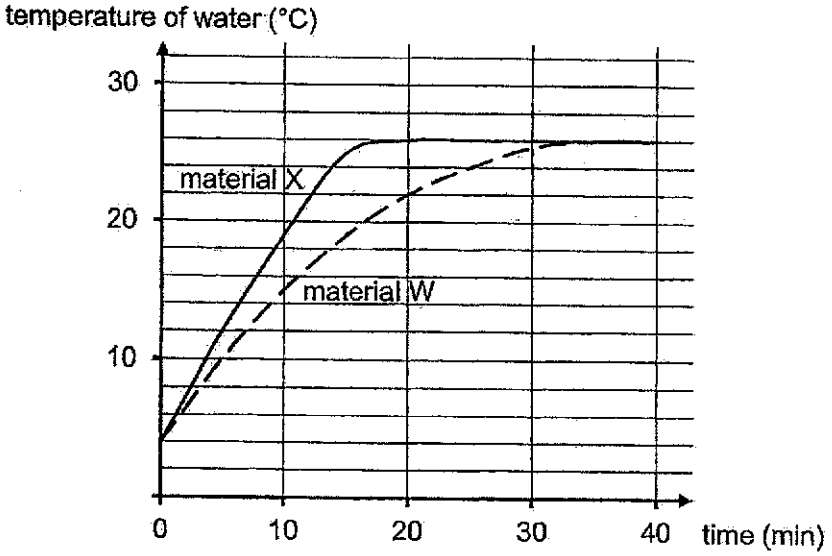
State the direction of heat flow between parts P and Q of the spoon. [1]

SCORE	

9 Mingjie conducted an experiment in a room using the set-ups shown below. He wrapped two identical glass beakers with materials W and X and filled both beakers with the same amount of water.



He measured the temperatures of the water in both beakers at different times. His results are shown below.



(a) State the source of heat in Mingjie's experiment. [1]

_____

(b) Fill in each blank with a suitable word / phrase. [1]

Material X is a _____ conductor of heat than material W. The water in set-up 2 _____, as compared to the water in set-up 1.

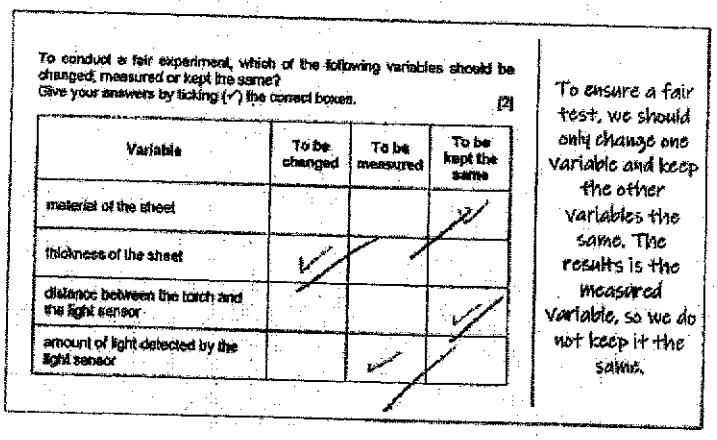
(c) Based on the graph, state the temperature in the room. [1]

_____

End of Section B

SCORE	

SCHOOL : PEI CHUN SCHOOL
LEVEL : PRIMARY 4
SUBJECT : SCIENCE
TERM : 2024 WA3

Q1)	3
Q2)	4
Q3)	4
Q4)	2
Q5)	4
Q6)	a) Caili blocked the light grom the lamp. b) decreased / increased
Q7)	a) Material B. It allowed the most light to pass through. b) 
Q8)	a) The spoon lost heart to the ice cream. b) Heat flowed from Q to P.
Q9)	a) The surrounding air was the source of heat. b) Material is a better conductor of heat than material W. The water in set-up 2 gained heat faster as compared to the water in set-up 1 c) 26°C
Q14)	
Q15)	
Q16)	
Q17)	

Q18)	
Q19)	
Q20	
Q21)	
Q22)	