

Catholic High School (Primary)  
Primary 4 Science 2023  
Weighted Assessment 3

Name: \_\_\_\_\_ ( )

Class: Pri. 4 - \_\_\_\_\_

Date: 14 August 2023

Parent's Signature: \_\_\_\_\_

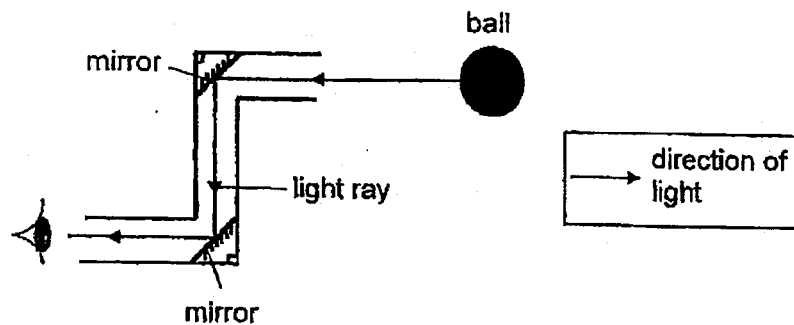
MARKS	25
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**Section A (8 × 2 marks)**

For each question from 1 to 8, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Write the correct number in the brackets provided.

(16 marks)

- 1 The diagram shows a periscope. A periscope is an instrument that uses mirrors to allow people to look at things from a different position.



Which statement correctly describes why we can see the ball through a periscope?

- (1) The mirror can reflect light.
- (2) The mirror is a light source.
- (3) The ball can form a shadow.
- (4) Light does not travel in a straight line.

( )

2 Study the table.

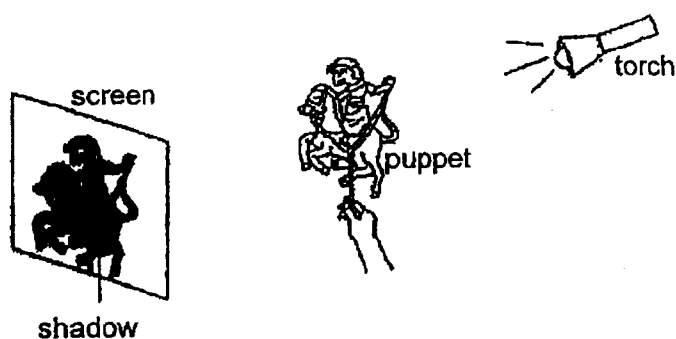
Light sources	Non-light sources
sun moon fire	lit candle pencil cardboard

Which items are **not** placed correctly?

- (1) pencil and fire
- (2) cardboard and sun
- (3) moon and lit candle
- (4) moon and cardboard

( )

3 A shadow play is performed by placing a puppet between a screen and a torch.

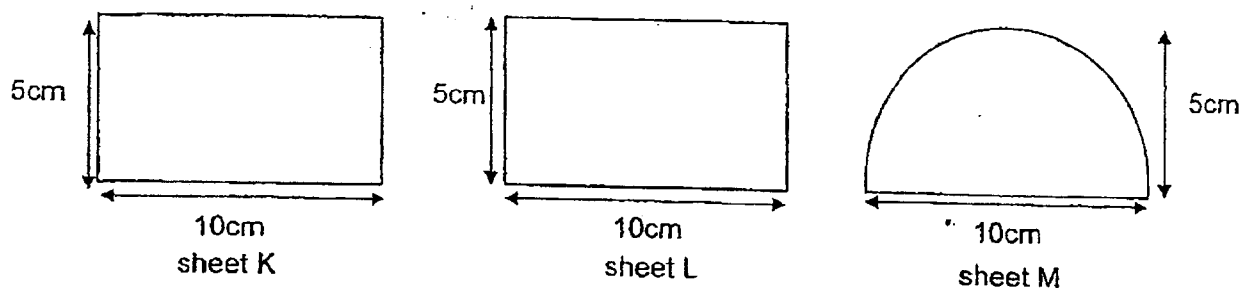


The shadow cast on the screen can be made bigger by moving the \_\_\_\_\_.

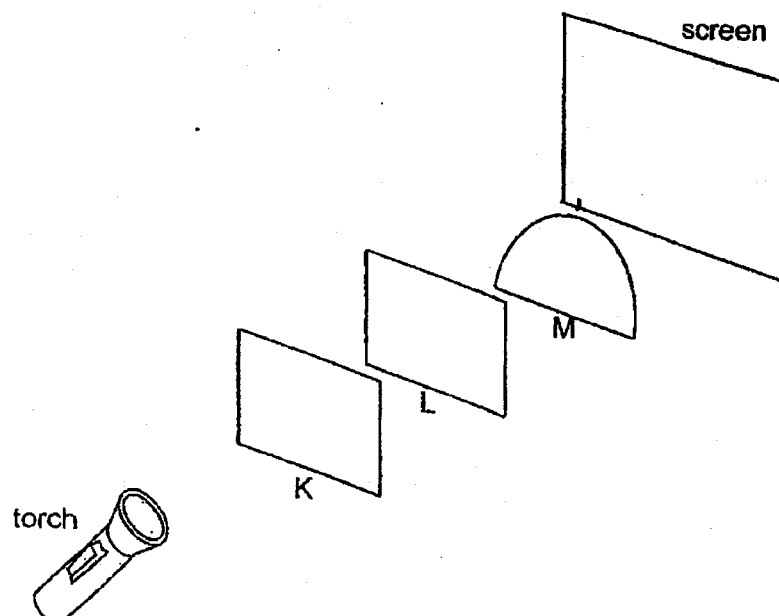
- (1) torch closer to the puppet
- (2) puppet further away from the torch
- (3) screen further away from the torch
- (4) screen further away from the puppet

( )

- 4 Joshua has three sheets of different materials cut into shapes.



He conducted an experiment in a dark room using the set-up as shown.

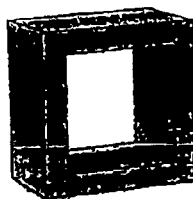


Joshua observed a shadow of a semicircle on the screen.

Which of the following is most likely correct?

	allows most light to pass through	allows some light to pass through	does not allow light to pass through
(1)	K		L, M
(2)	-	K, M	L
(3)	K, L	-	M
(4)	L	M	K

- 5 The diagram shows object X.



Which of the following would most likely be the shadow of object X?



A



B



C

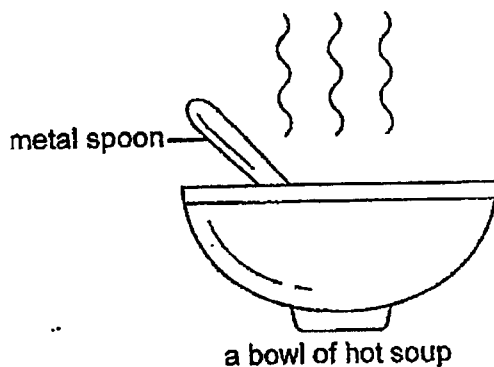


D

- (1) B only
- (2) A and B only
- (3) A, C and D only
- (4) B, C and D only

( )

- 6 Damien places a metal spoon in a bowl of hot soup.



The metal spoon becomes hotter after a while. Which of the following explains this?

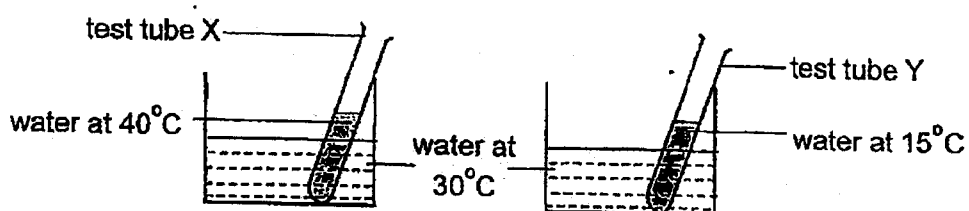
- (1) The bowl loses heat to the hot soup.
- (2) The hot soup gains heat from the bowl.
- (3) The metal spoon loses heat to the hot soup.
- (4) The metal spoon gains heat from the hot soup.

( )

7 Which statement is correct?

- (1) Temperature is a form of energy.
- (2) Heat always travels from a hotter place to a colder place.
- (3) The temperature of an object can be accurately measured by touching it.
- (4) Two beakers each containing 200ml and 500ml of water at 90°C have the same amount of heat. ( )

8 Ahmad placed two test tubes X and Y with equal amounts of water at different temperatures in basins of water in the Science Room.



What are the possible temperatures of the water in test tubes X and Y after five minutes?

Temperature of water in test tubes (°C)		
	X	Y
(1)	20	20
(2)	50	30
(3)	40	15
(4)	30	25

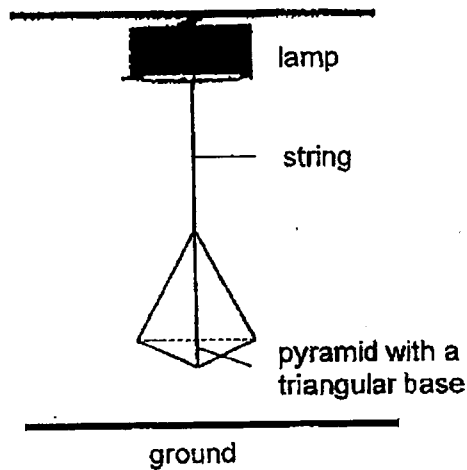
( )

**Section B (9 marks)**

For questions 9 to 11, write your answers in this booklet.

The number of marks available is shown in brackets [ ] at the end of each question or part question. (9 marks)

- 9 Lynn hangs a wooden pyramid with a triangular base directly below a lamp which is fixed to the ceiling as shown.



- (a) State how the shadow of the pyramid is formed on the ground. [1]

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- (b) Draw how the shadow of the pyramid would look like in the box. [1]

A large empty rectangular box provided for drawing the shadow of the pyramid.

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SCORE	2
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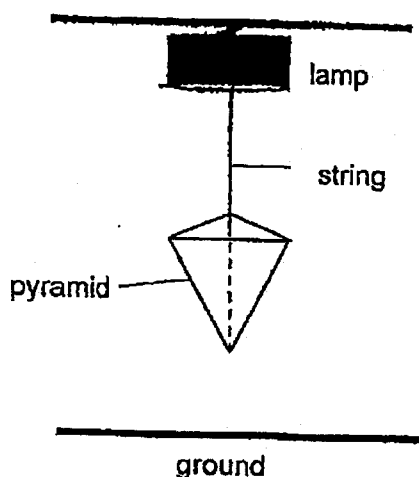
Continue from Question 9

- (c) What can Lynn do to get a bigger shadow on the ground?  
Put a tick (✓) in the correct column.

[1]

Action	Tick (✓)
use a thicker string	
use a longer string	
use a shorter string	

Without making any other changes, Lynn turns the pyramid upside down.



- (d) The shadow of the pyramid is observed to be bigger than before.  
Explain why.

[1]

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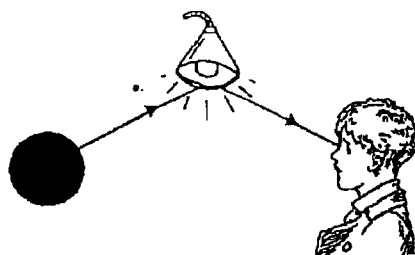
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SCORE	2
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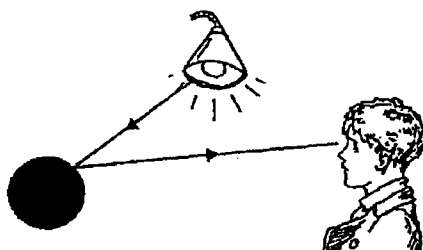
10 Matt saw a ball in his room.

- (a) Put a tick (✓) in the box to show the correct path of light that enables Matt to see the ball. [1]

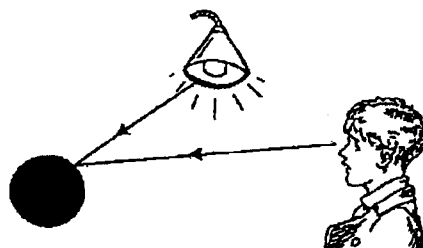
(i)


☐

(ii)


☐

(iii)


☐

- (b) Matt switched off the light and his room became completely dark. Explain why he could no longer see the ball. [1]

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SCORE	2
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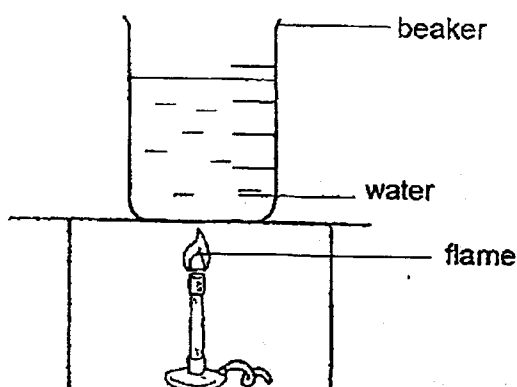
- 11 (a) State what temperature is.

[1]

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Belinda heated a beaker of water above a flame as shown.



The flame was removed after 20 minutes.

- (b) Circle the correct change in the temperature of water in the beaker. [1]

The temperature of water in the beaker (increased / decreased / remained the same) after 20 minutes.

- (c) Explain your answer in (b).

[1]

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End of Paper

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SCHOOL : CATHOLIC HIGH PRIMARY SCHOOL  
LEVEL : PRIMARY 4  
SUBJECT : SCIENCE  
TERM : 2023 WA3


CONTACT :

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**SECTION A**

Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1	3	1	3	2	4	2	4

**SECTION B**

Q9)	<p>a) Shadow is formed when light is completely or partially blocked by pyramid</p>  <p>b)</p> <p>c) Use a shorter string</p> <p>d) The base of the pyramid is closer to the source of light</p>
Q10)	<p>a) tick (ii)</p> <p>b) The ball did not reflect any light into his eye, hence he cannot see it.</p>
Q11)	<p>a) Temperature is a measure of how hot or cold something is.</p> <p>b) Circle (Decrease)</p> <p>c) Hot water lost heat to the surroundings.</p>