Anglo-Chinese School
(Primary)
A Methodist Institution
(Founded 1886)

15

2024 P4 Science
Weighted Assessment 3

Name: _____ ( ) Date: 24 July 2024

Class: P4 ____ Duration: 25 minutes

Section A: Investigation

Instructions for Performance Task (5 marks)

Read the questions carefully before you begin.

Aims:

1. To take measurements of different objects for comparison.
2. To observe interactions between different objects.
3. To classify objects based on results.

Materials:

- Objects **S**, **T** and **U**
- 1 ruler
- 1 magnet **(Do not drop!)**

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Procedure:

Taking measurements

1. Use the ruler to measure the **length** of objects, **S**, **T** and **U**.

2. Record the **length** of each object in the table below. [3]

Object	Length of object (cm)
S	
T	
U	

Observing interactions and classifying objects

3. Use the magnet to touch each object, **S**, **T** and **U**, and observe if the magnet attracts the object.

4. Based on your results in the table above, group each object, **S**, **T** and **U**, under the correct heading below.
   [2]
   [Use the letters, **S**, **T** and **U**, only.]

Magnetic	Non-magnetic	Not possible to tell

Note: Return all the items to the bag.

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Optical Answer Sheet



Section B: Knowledge Application (Multiple-Choice Questions)

For each question from 2 to 4, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and shade your answer on the Optical Answer Sheet. [6]

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2 The table below describes three different states of matter, J, K and L.

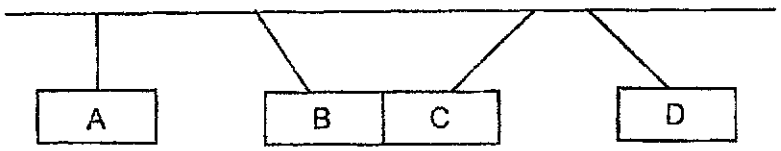
Property	J	K	L
Does it have a definite shape?	Yes	No	No
Does it have a definite volume?	Yes	No	Yes

Based on the table above, which of the following is correct?

	J	K	L
(1)	solid	liquid	gas
(2)	solid	gas	liquid
(3)	gas	solid	liquid
(4)	gas	liquid	solid

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3 The diagram below shows what happens when four metal bars of the same weight, A, B, C and D, are suspended on strings.



Based only on the diagram above, which of the following is **definitely** correct?

(1) D is a magnet.

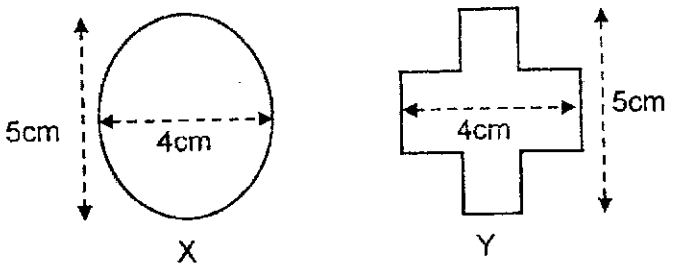
(2) Both B and C are magnets.

(3) A is not made of a magnetic material.

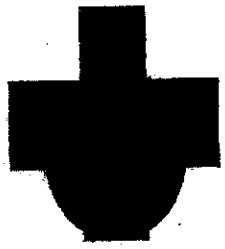
(4) Both A and D are not magnetic materials.

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4 The diagram below shows two objects, X and Y.

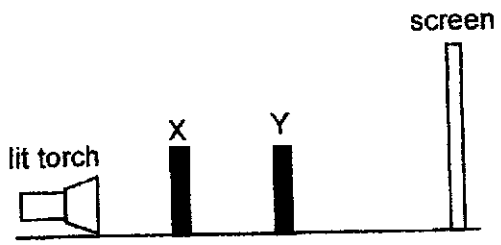


The two objects were arranged in a set-up such that the following shadow was seen on the screen.

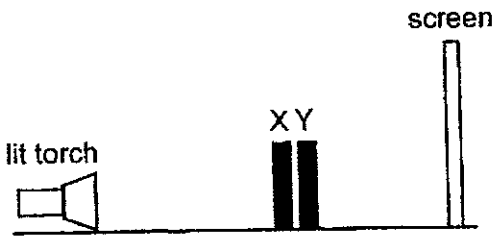


Which one of the following correctly shows where X and Y were placed between the lit torch and the screen?

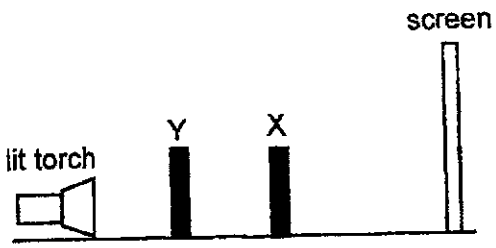
(1)



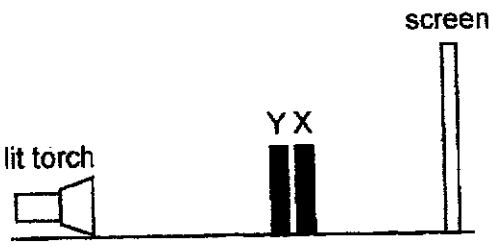
(2)



(3)



(4)



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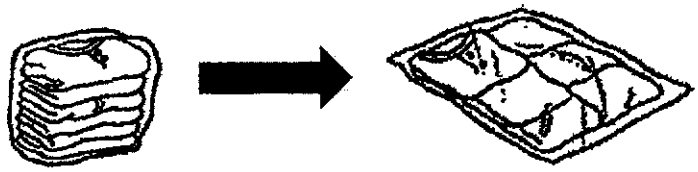
Section C: Knowledge Application (Open-Ended Questions)

For questions 5 and 6, write your answers in the spaces provided. The number of marks available is shown in brackets [ ] at the end of each question or part question.

[4]

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5 Kate packed some clothes into a bag. Before flattening it, the mass of the bag containing the clothes was 2 kg. She then flattened the bag of clothes and removed as much air as she could from the bag.



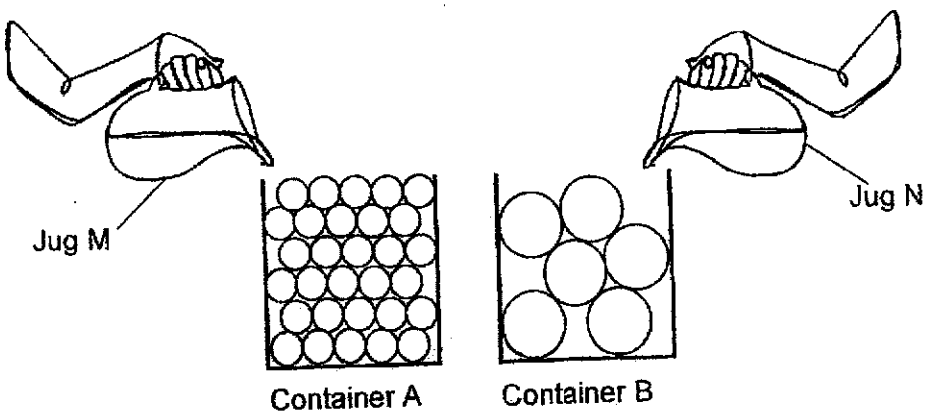
Before flattening
(Mass of the bag = 2 kg)

After flattening

(a) Based on the diagram above, state if there was an increase, decrease or no change in the mass of the bag after flattening. Explain your answer. [1]

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5 In another experiment, Kate placed plastic balls of different sizes into two identical containers, A and B as shown below. She had two jugs, M and N with 200 ml of water each. She poured the water to fill containers, A and B to the top.



Kate then measured the volume of water left in each jug and recorded her results in the table below.

Jug	Amount of water in the jug at the start (ml)	Amount of water left in the jug (ml)
M	200	100
N	200	50

(b) From which jug, M or N, did Kate add more water? Explain why. [1]

_____

_____

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6 A light sensor was set up at the entrance of the school library to count the number of visitors. Only one visitor can enter at a time. The light sensor detects light from a lamp as shown in diagram 1. Diagram 2 shows a visitor walking through the entrance, between the lamp and the light sensor.

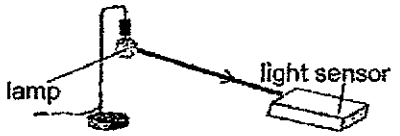
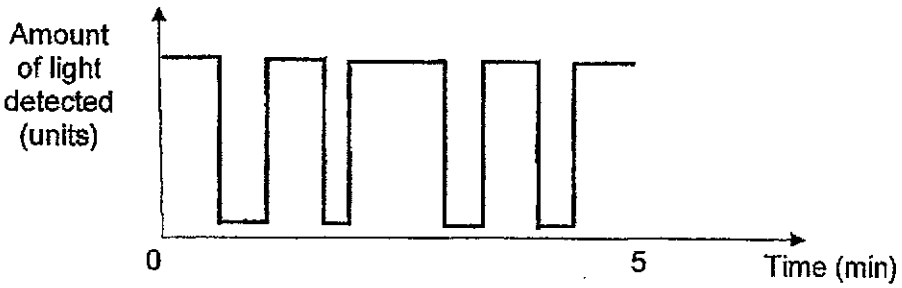


Diagram 1



Diagram 2

The graph below shows the information taken from the light sensor in 5 minutes.



Based on the graph, how many visitors entered the library in 5 minutes? Using the properties of light, explain why. [2]

End of Paper

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ANSWER KEY

YEAR : 2024
LEVEL : PRIMARY 4
SCHOOL : ACSP
SUBJECT : SCIENCE
TERM : WA 3

SECTION A

Q1	
Q2	S : 10.9 T : 9.8 U : 8.4cm
Q3	
Q4	Magnetic : T Non-magnetic : S , U

SECTION B

Q2	2
Q3	1
Q4	3
Q5	a) Decrease. The air that has mass. b) N. There are more spaces between the objects in container B allowing more water to flow into the open spaces.
Q6	Four. Because every time a visitor walks pass the lamp, they block the light from the light sensor so no light can pass through causing the amount of light detected to drop.

END

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