NANYANG PRIMARY SCHOOL
Term 1 Weighted Assessment
Science
Primary 4

25

Name: _____ ( ) Date: _____

Class 4 ____ Parent's Signature: _____

Please sign and return the Weighted Assessment paper the next day. Any queries should be raised at the same time when returning the paper.

Section A (2 marks each)

For each question from 1 to 6, four options are given. One of them is the correct answer. **Indicate your choice in the brackets provided.**

1. The characteristics of plants X and Y are listed below.

Characteristics	Plant X	Plant Y
Able to make its own food	Yes	Yes
Reproduce by spores	No	Yes
Bear fruits	Yes	No

Three children made the following statements.

Anna : Plant X is a flowering plant.
Brian : Plant Y reproduce by seeds.
Charlie : Only Plant X absorbs sunlight to make food.

Which of the statements above are correct?

(1) Anna only
(2) Anna and Charlie only
(3) Brian and Charlie only
(4) Anna, Brian and Charlie ( )

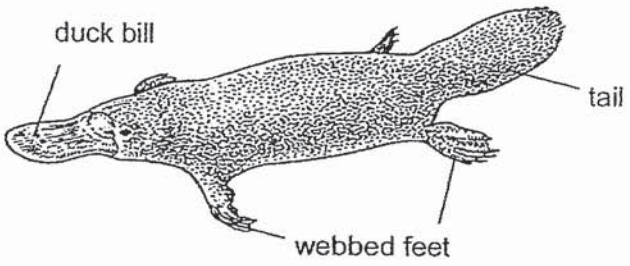
2. Jeremy found an animal that he had never seen before at the pond.

Which one of the following characteristics can he use to classify it correctly as an amphibian?

(1) It lays eggs.
(2) It has moist skin.
(3) It suckles its young.
(4) It needs air, food and water. ( )

3. The diagram below shows animal P. It is a unique animal with the following characteristics:

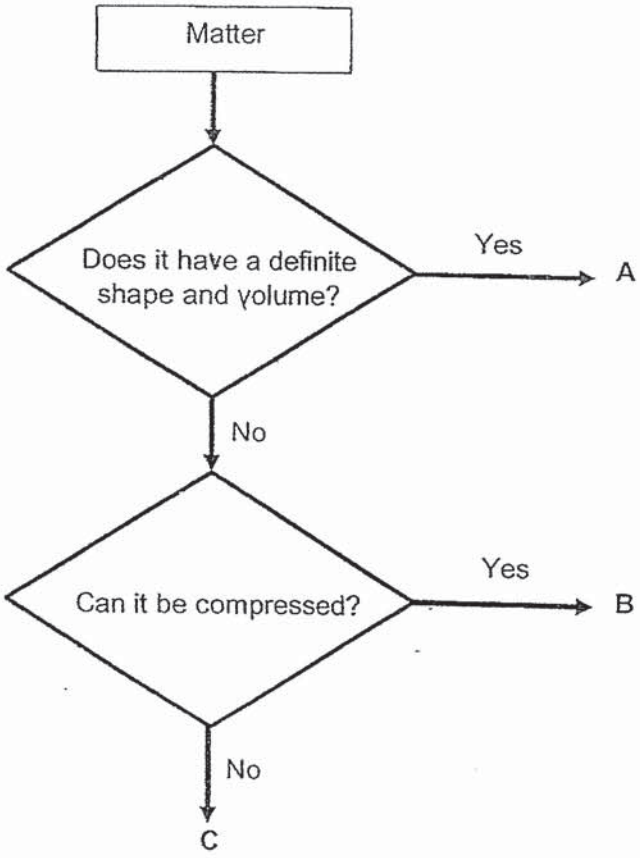
- It has fur as an outer covering.
- It lays eggs, and it suckles its young.
- It has lungs and nostrils for breathing.
- It has a duck bill, webbed feet and a tail for swimming.



Which one of the following characteristics helps us classify animal P as a mammal?

(1) It lays eggs.
(2) It has a duck bill.
(3) It suckles its young.
(4) It has webbed feet and a tail. ( )

4. Study the flowchart below.

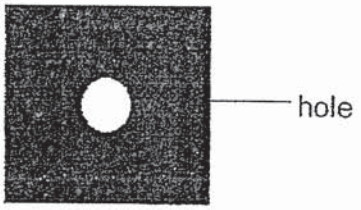


Which one of the following correctly represents A, B and C?

	A	B	C
(1)	paper clip	air	oil
(2)	milk	apple	oxygen
(3)	fork	water	Air
(4)	nail	honey	book

( )

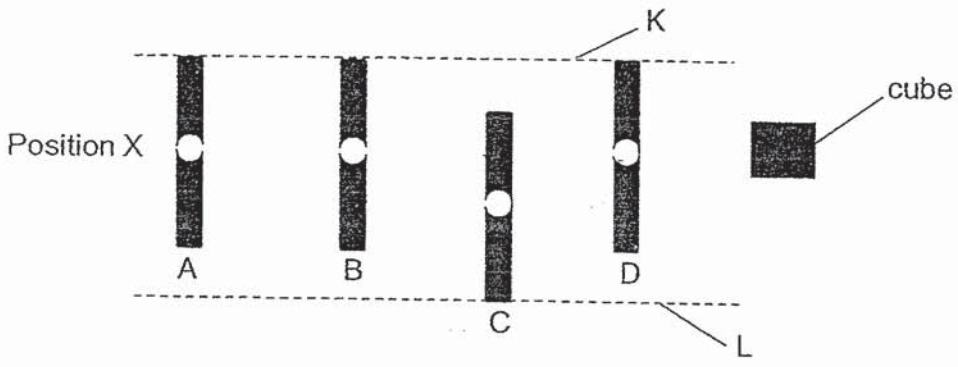
5. Macy cut out a hole from the middle of a card as shown in the diagram below.



card

She placed 4 identical cards in front of a cube and stood at position X.
She could not see the cube from her position.

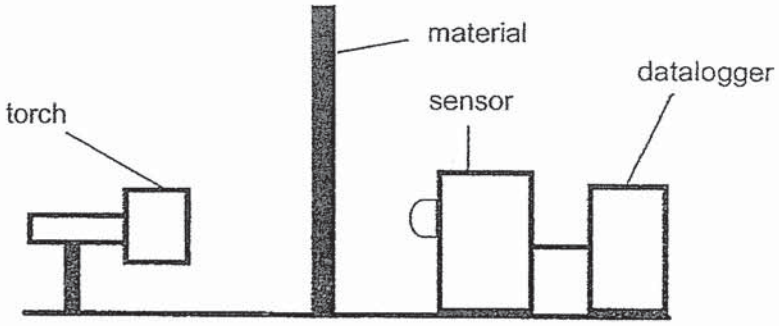
The diagram below shows the top view of her set-up.



Which one of the following actions should Macy do to enable her to see the cube?

(1) Move card C upwards to touch dotted line K.
(2) Move card B downwards to touch dotted line L.
(3) Move cards B, D downwards to touch dotted line L.
(4) Move cards A, B and D downwards to touch dotted line L. ( )

6. Michelle set up the experiment as shown below. The torch was switched on and the sensor recorded how much light had passed through the material.



She repeated the experiment using different materials and the results of her experiment is shown in the table below.

Material	Amount of light detected by sensor (units)
W	750
X	600
Y	920
Z	0

Based on the results above, which material should Michelle use to make the doors of a toilet such that a person using the toilet would not be seen?

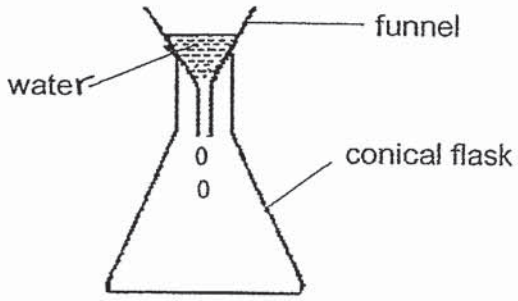
(1) W
(2) X
(3) Y
(4) Z

( )

Section B (13 marks)

For questions 7 to 9, fill in your answers in the spaces provided.

7. Naim placed a funnel on a conical flask and poured some water in quickly.



He noticed that the water did not flow into the flask quickly as expected. Instead, the water in the funnel dripped into the flask slowly.

(a) (i) Give a reason why the water dripped down slowly.

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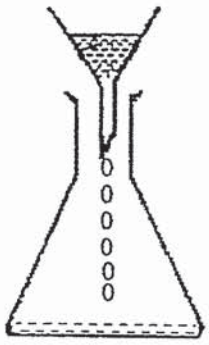
Naim's mother told him to lift the funnel up so that the water in the funnel would flow quickly into the flask.



(ii) Explain why the water in the funnel flowed quickly into the flask when the funnel was lifted. [1]

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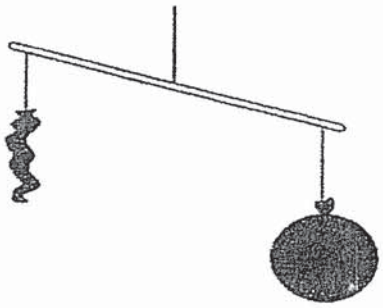
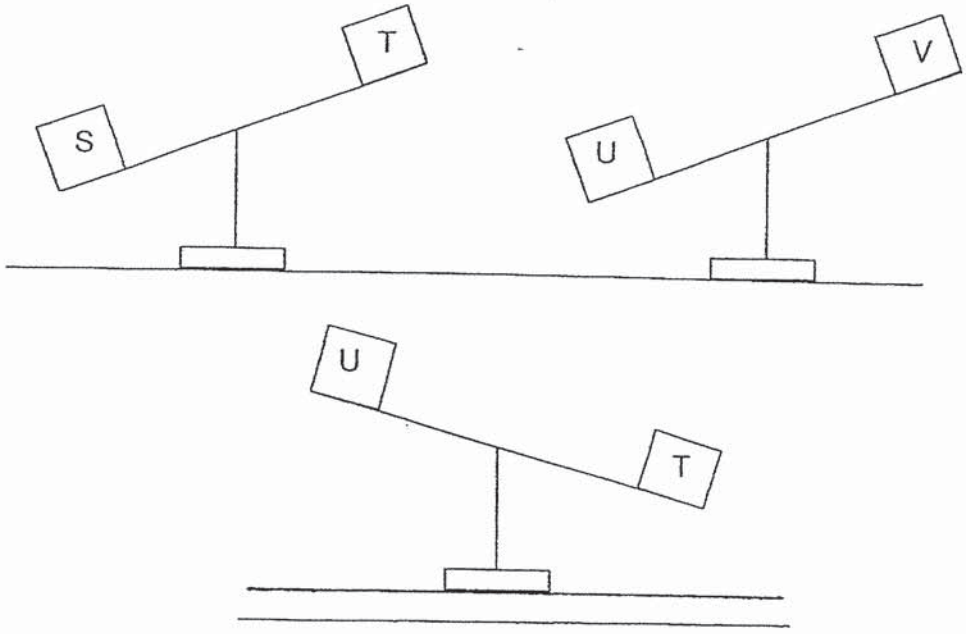
Arif balanced 2 inflated balloons on a balance. He then deflated one of the balloons and observed the results in the diagram below.



(b) What conclusion can Arif make about the property of air from the observation above? [1]

Arif then used another lever balance to carry out an experiment with 4 different blocks, S, T, U and V. The diagrams below show his observations.



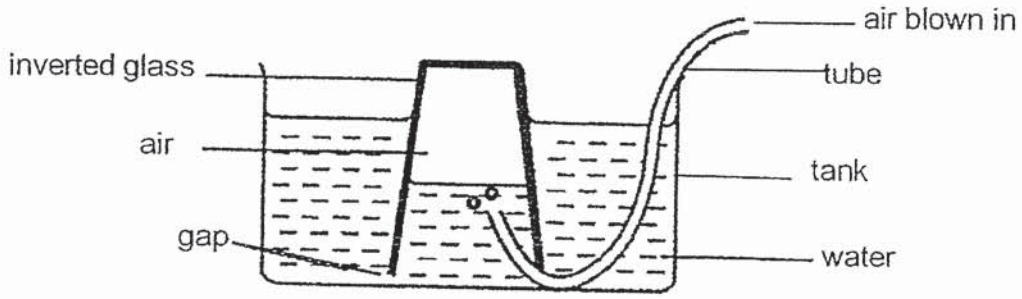
(c) Arrange the objects, S, T, U and V from the object with the greatest mass to the one with the smallest mass. [1]

Greatest mass → Smallest mass

□ , □ , □ , □

2

8. Kimberly set up an experiment as shown in the diagram below.



Kimberly then blew air into the tube. She noticed that the water level in the inverted glass decreased.

(a) Explain why the water level in the glass decreased. [2]

_____

(b) What will she observe about the water level in the tank? [1]

_____

(c) Explain what will happen to the total volume of water in the whole set-up. [1]

_____

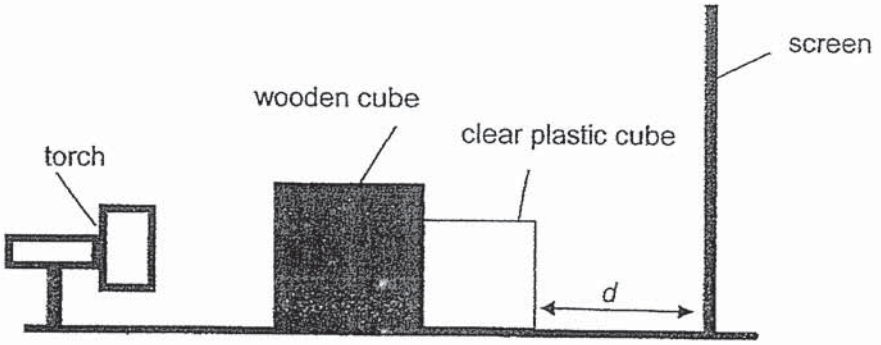
_____

(d) Based on the experiment above, state a property of matter. [1]

_____

5

9. Mark set-up an experiment as shown below. The experiment was carried out in a dark room.



(a) In the space below, draw what Mark would most likely observe on the screen. [2]

Mark repeated the experiment by changing distance d and measuring the height of the shadow. He recorded the height of the shadow in the table shown below.

Distance, *d* (cm)	Height of shadow (cm)
5	15
6	17
7	19

(b)(i) Based on the results recorded in the table above, what is the relationship between distance *d* and the height of the shadow? [1]

_____

_____

(ii) Without moving the cubes and the screen, suggest a change that Mark can make if he wants to observe a bigger shadow. [1]

_____

_____

4

ANSWER KEY

YEAR : 2020
LEVEL : PRIMARY 4
SCHOOL : NANYANG
SUBJECT : SCIENCE
TERM : CA1

SECTION A

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

SECTION B

Q7	a)(i) Air in the conical flask occupies space. (ii) There was a gap for the air to escape so the water could displace the air inside. b) Air has mass c) S , T , U , V
Q8	a) The air blown by Kimberly displaced the water and pushed the water out through the gap. b) It will increase. c) The total volume will remain the same as no additional water was added. d) Matter occupies space
Q9	a)  b) (i) As distance d increases , the height of the shadow increases. (ii) Mark can move the torch nearer to the cubes.

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