NANYANG PRIMARY SCHOOL
Term 1 Weighted Assessment
Science
Primary 4

15

Name: _____ ( ) Date: _____

Class: 4_____ Parent's signature: _____

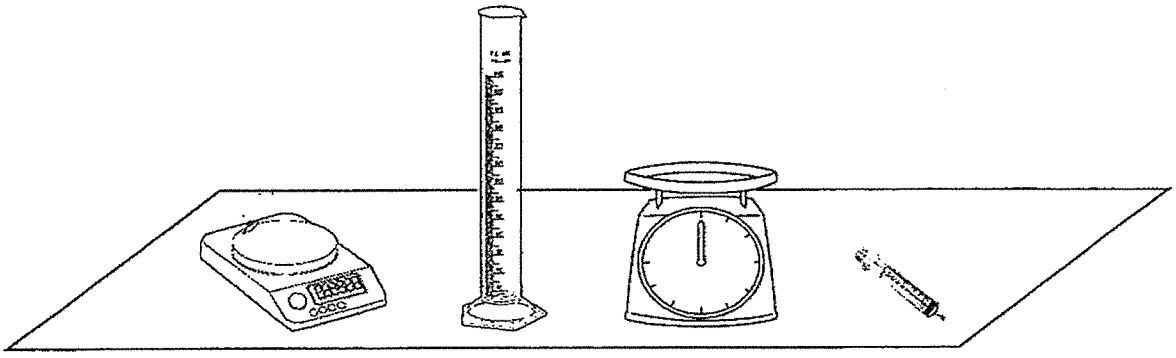
Dear Parent/Guardian,

Please sign the Weighted Assessment paper and have your child/ward return it the next day. Any query should be raised at the same time when returning the paper.

Section A: Multiple Choice Questions (10 marks)

For each question from 1 to 5, four options (1, 2, 3 and 4) are given. One of them is the correct answer. ***Indicate your choice in the brackets provided.***

1. Timothy wants to measure the mass of some Milo powder. Which of the instruments, A, B, C or D, should he use?



A B C D

(1) A and C
(2) A and D
(3) B and C
(4) B and D ( )

2

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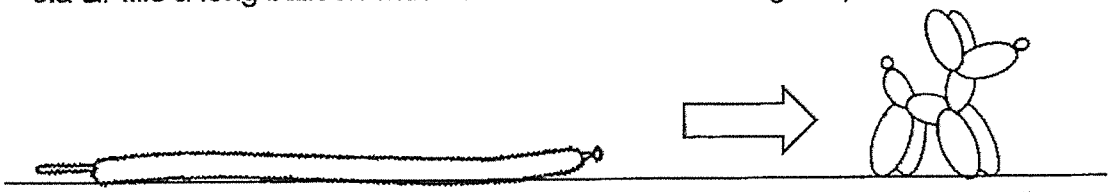
2. Jia Er fills a long balloon with air and twists it into a dog shape.

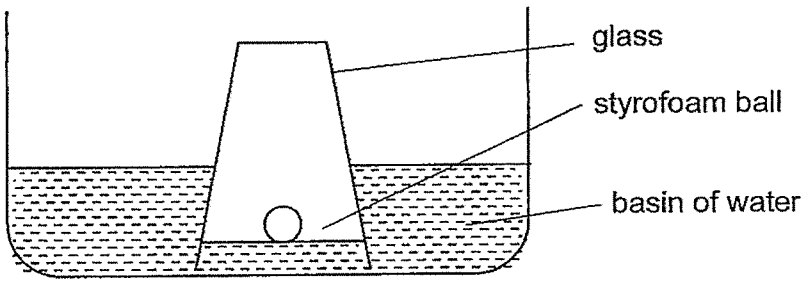


Which of the properties of air enables this to be done?

A Air has mass.
B Air occupies space.
C Air has no definite shape.

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

3. Shanti inverted a glass over a styrofoam ball in a basin of water as shown in the diagram below.



Which of the following explains why the water level inside the glass is lower than the water level in the basin?

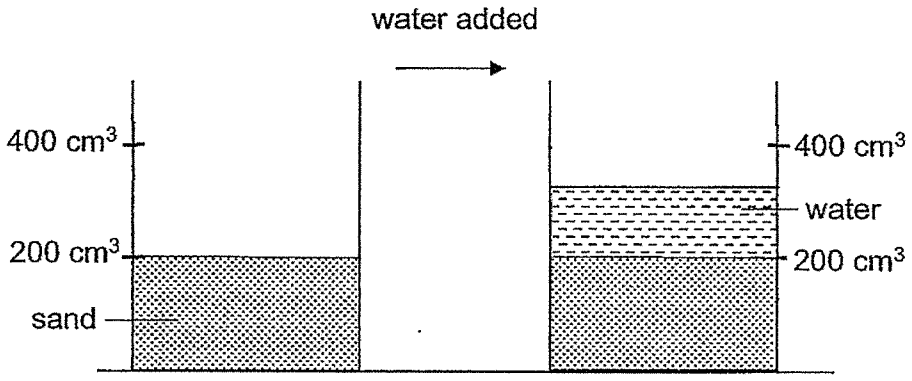
(1) The styrofoam ball floats on water.
(2) The air in the glass occupies space.
(3) The styrofoam ball pushed the water out of the glass.
(4) The water in the glass is heavier than the water outside. ( )

4

4. Which of the following is **not** matter?

(1) milk
(2) pencil
(3) shadow
(4) candle wax ( )

5. Jingyi poured sand into a container to the 200 cm^3 mark as shown in the diagram below. Then she added 200 cm^3 of water to the sand but observed that it did not reach the 400 cm^3 mark.



Which of the following gives the correct explanation for her observation?

(1) The sand took up the space previously occupied by the water.
(2) The water took up the space previously occupied by the sand.
(3) The sand took up the space previously occupied by the air in the container.
(4) The water took up the space previously occupied by the air in the container.

( )

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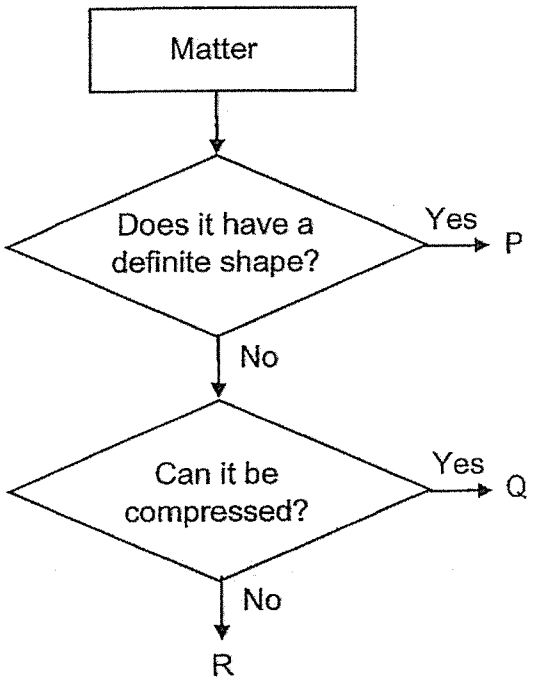
Section B: Open-Ended Questions (5 marks)

For questions 6 and 7, fill in your answers in the spaces provided.

6. Study the flowchart below.



(a) Based on the flowchart, state one difference between P and Q. [1]

_____

_____

(b) Give an example of R. [1]

_____

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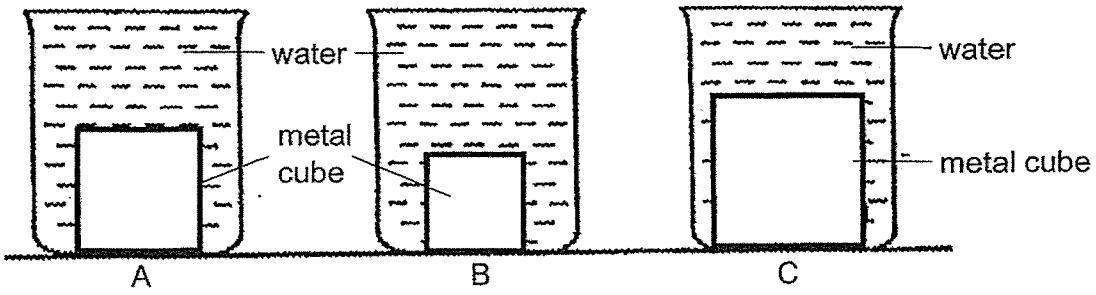
7. Kai Jia took three identical beakers, A, B and C, and placed a metal cube of different size in each of them. She then filled the beakers with water to the brim.



(a) In which beaker, A, B or C, was there the least amount of water? [1]

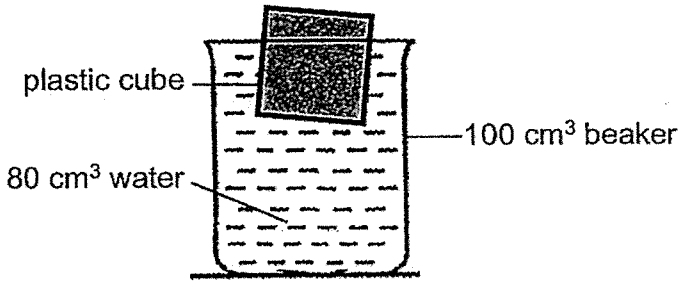
Beaker _____

(b) Explain your answer in (a). [1]

_____

_____

Next, Kai Jia placed a plastic cube into a 100 cm^3 beaker. She found that she had to pour 80 cm^3 of water to fill the beaker to the brim. She concluded that the plastic cube had a volume of 20 cm^3.



Based on the observation above, her teacher said that Kai Jia's method of measuring the volume of the plastic cube is not accurate.

(c) Explain why the method is not accurate. [1]

_____

_____

– End of Paper –

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NANYANG PRIMARY SCHOOL
Term 2 Weighted Assessment
Science
Primary 4

15

Name: _____ ( ) Date: _____

Class: 4_____ Parent's signature: _____

Dear Parent/Guardian,

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Section A: Multiple Choice Questions (10 marks)

For each question from 1 to 5, four options (1, 2, 3 and 4) are given. One of them is the correct answer. ***Indicate your choice in the brackets provided.***

1. Which statement about light is **incorrect**?

(1) Light is a form of energy.
(2) Light travels in a straight line.
(3) A shadow is formed because light is reflected.
(4) A table can be seen because it reflects light into our eyes.

( )

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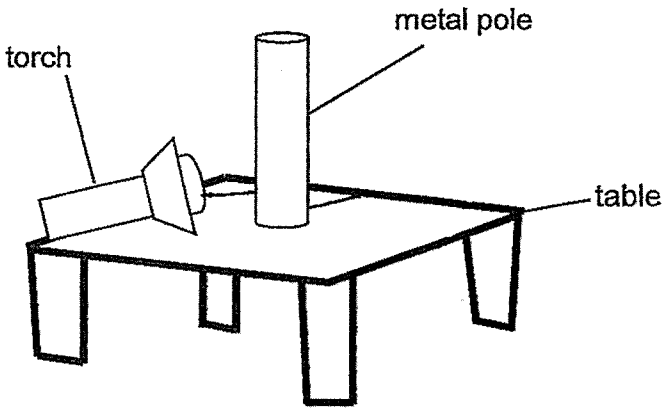
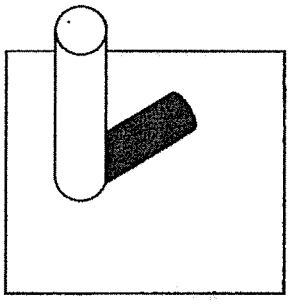
2. A metal pole and a torch were placed on a table as shown in the diagram below.

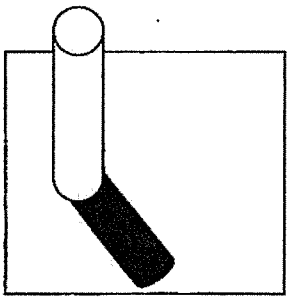


Which of the following diagrams correctly shows the shadow of the pole on the table top?

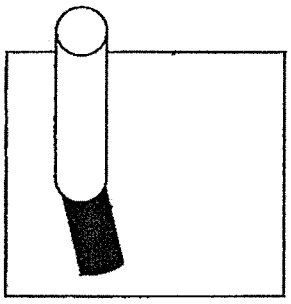
(1)



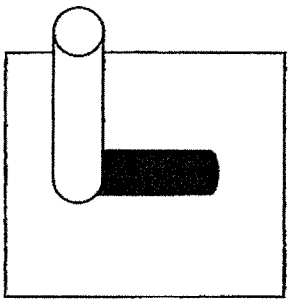
(2)



(3)



(4)



( )

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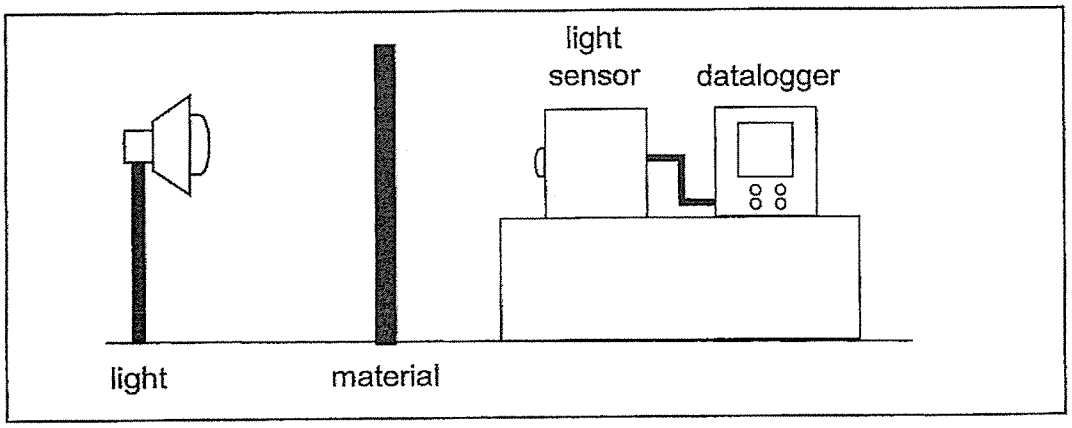
3. Mary set up an experiment using a light sensor to measure the amount of light passing through different materials. The set-up shown below is placed in a dark room.



She measured the amount of light passing through materials P, Q and R. The table below shows the recorded results on the datalogger.

Material	Amount of light detected (units)
P	100
Q	40
R	0

Which of the following best represents materials P, Q and R?

	Material P	Material Q	Material R
(1)	clear plastic	cardboard	paper
(2)	cardboard	paper	clear plastic
(3)	clear plastic	paper	cardboard
(4)	paper	cardboard	clear plastic

( )

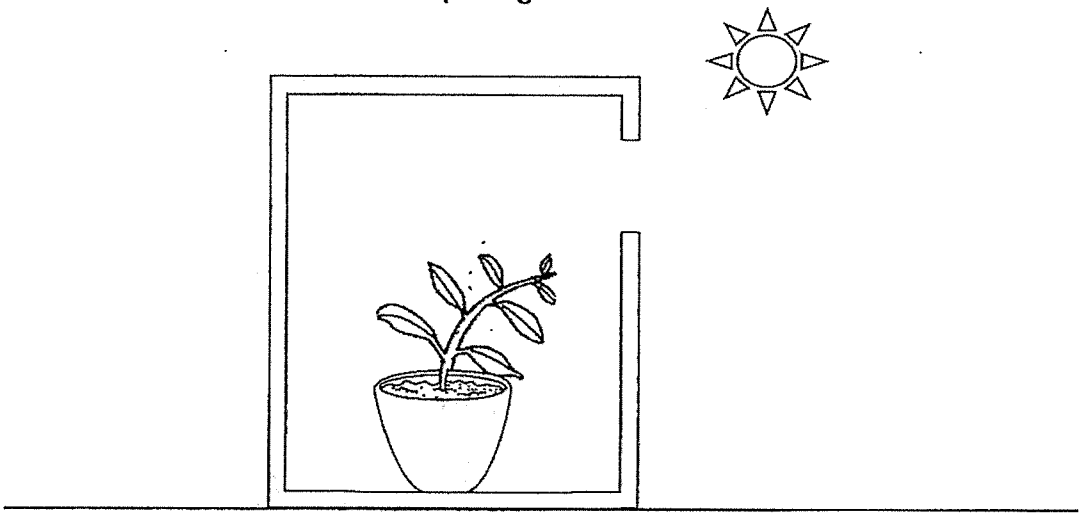
2

4. Which of the following statements about the plant parts is correct?

	Stem	Leaf	Roots
(1)	Holds the plant upright	Takes in and give out gases	Hold the plant firmly to the ground
(2)	Holds the plant firmly to the ground	Makes food for the plant	Hold the plant upright to reach for light
(3)	Holds the plant upright	Absorbs mineral salts and water	Take in and give out gases
(4)	Takes in and give out gases	Makes food for the plant	Hold the plant firmly to the ground

( )

5. Jane grew a plant shown in the diagram below. She placed it in a box with a small opening. A few days after the plant has been placed in the box, it was observed to lean towards the opening of the box.



Based on the diagram, which of the following statements is correct?

(1) The plant bends to absorb more water.
(2) The plant bends as it has a weak stem.
(3) The plant bends due to a lack of space.
(4) The plant bends to grow towards the light.

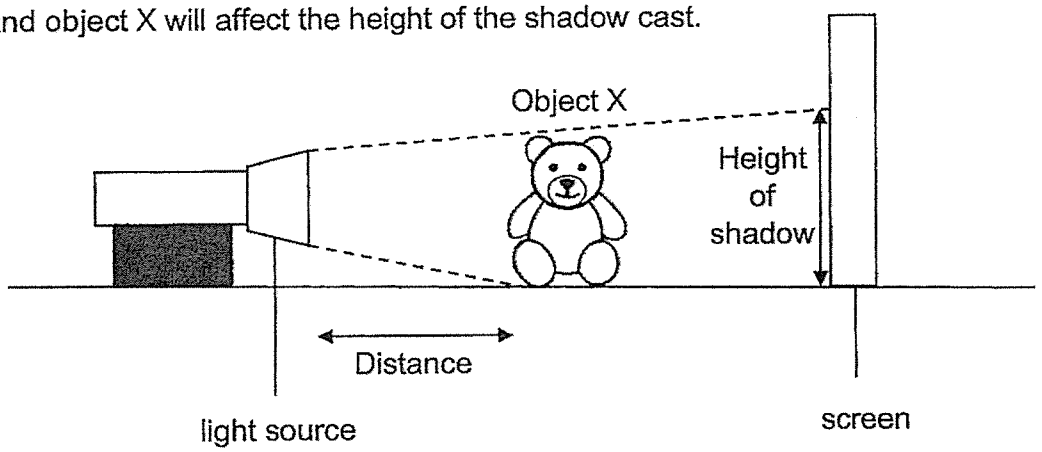
( )

4

Section B: Open-Ended Questions (5 marks)

For questions 6 and 7, fill in your answers in the spaces provided.

6. The set-up below is used to investigate how distance between the light source and object X will affect the height of the shadow cast.



The distance between object X and the light source was changed a few times and the height of the shadow was measured and recorded in the table shown below.

Distance between object X and the light source (cm)	Height of shadow (cm)
5	25
13	17
20	10
25	z

(a) Based on the results above, state a possible value for z. [1]

_____ cm

(b) Based on the aim of the experiment, state the changed variable. [1]

_____

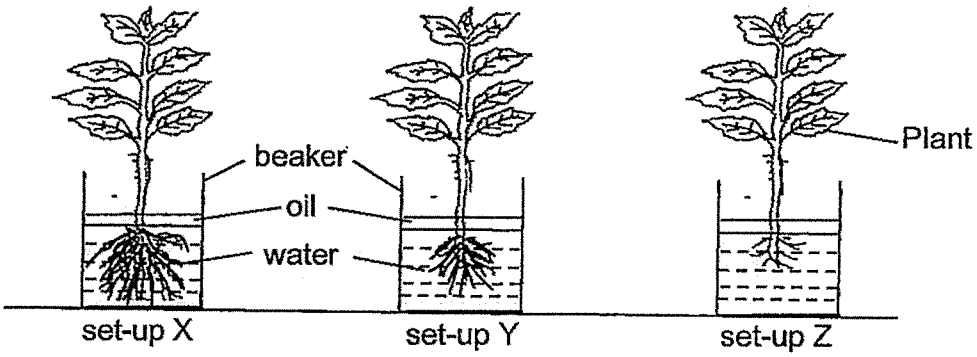
(c) Based on the results, what is the relationship between the distance between object X and the light source and the height of the shadow? [1]

_____

_____

3

7. Benjamin set up an experiment using the following set-ups, X, Y and Z as shown in the diagram below.



He used the same type of plant in each set-up and gave the same amount of water at the start of the experiment. After two days, he realised that the amount of water in each setup was different.

(a) In which set-up will there be the most amount of water left in the beaker? [1]

_____

(b) Explain your answer in (a). [1]

_____

_____

- End of Paper -

2

Nanyang Primary School
P4 SCIENCE 2024
Term 1 Weighted Assessment Answer Key

Section A

1	1
2	3
3	2
4	3
5	4

Section B

Qn No	Acceptable Answers
6(a)	P has a definite shape but Q does not have a definite shape.
6(b)	water
7(a)	Beaker C
7(b)	The metal cube in beaker C took up the most space (greatest volume). Hence, there is least space for water.
7(c)	The plastic cube is not fully immersed in the water.

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Nanyang Primary School
P4 SCIENCE WA2 2024
Students' Answer Key

Section A

1	3
2	Void
3	3
4	1
5	4

Section B

Qn No	Acceptable Answers
6a.	1cm to 10cm
6b.	Distance between object X and the light source
6C.	The **further** the distance between object X and the light source, the **shorter** the height of the shadow.
7a.	z
7b.	Z had the **least amount of roots** which will **absorb the least** amount of water.

END