



**SCIENCE WEIGHTED ASSESSMENT 4 2021**  
**SCIENCE**  
**PRIMARY FOUR**

**Name:** \_\_\_\_\_ (     )

**Class:** Primary 4, \_\_\_\_\_

**Date:** 28 October 2021

**Total time:** 35 min

**INSTRUCTIONS TO CANDIDATES**

1. Write your name, index number and class in the spaces provided
2. Do not turn this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.

|                               |           |
|-------------------------------|-----------|
| <b>TOTAL</b>                  | <b>30</b> |
| <b>Parent's<br/>Signature</b> |           |

This question paper consists of 10 printed pages including this cover page.

**Section A: (16 marks)**

Make your choice (1, 2, 3 or 4) and write your answer in the brackets provided.

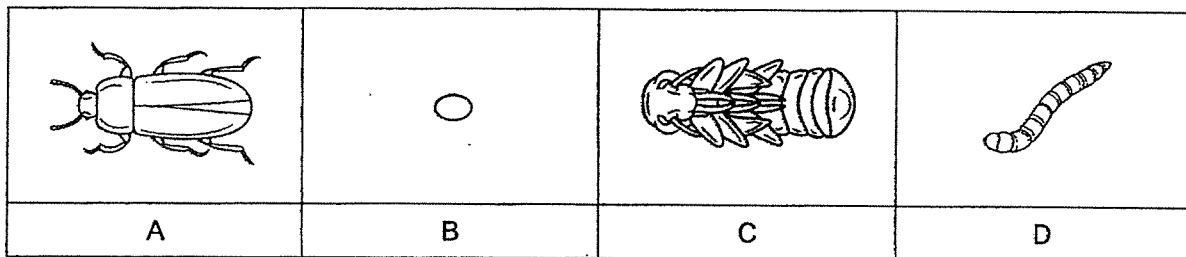
- 1 Matter is anything that has mass and occupies space.

Which one of the following is **not** matter?

- (1) air
- (2) soil
- (3) water
- (4) shadow

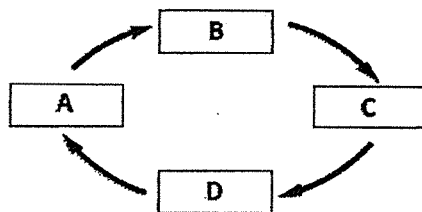
(      )

- 2 A, B, C and D are the various stages in the life cycle of a beetle.

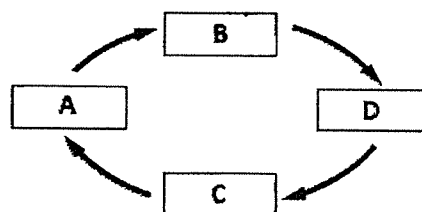


Which of the following correctly shows the life cycle of a beetle?

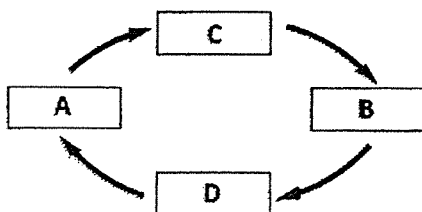
(1)



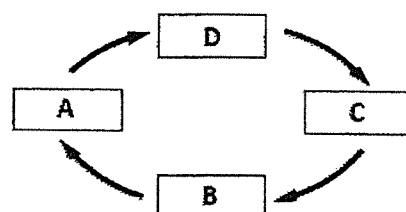
(2)



(3)



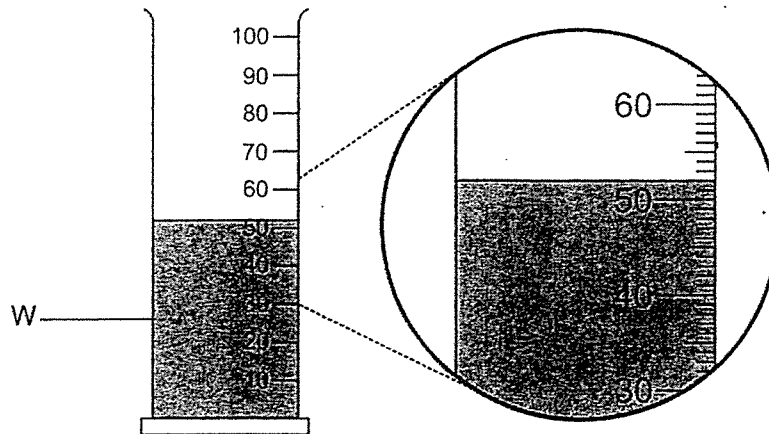
(4)



(      )

3

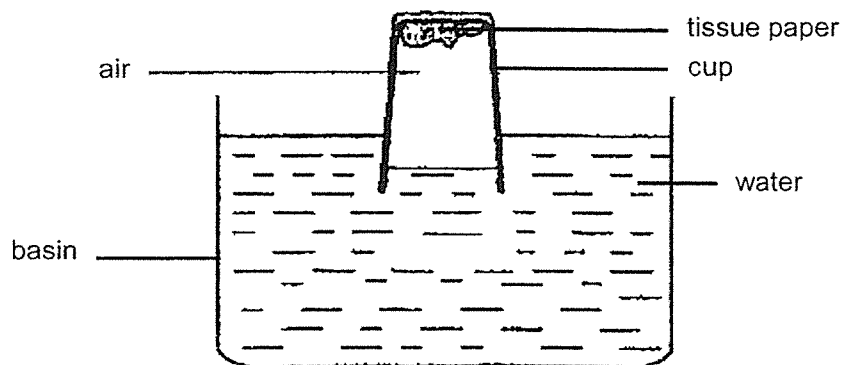
- 3 In the diagram, what is the volume of liquid W?



- (1) 30 ml  
(2) 50 ml  
(3) 52 ml  
(4) 62 ml

( )

- 4 Alvin pasted a piece of dry tissue paper onto the base of a cup as shown. He pushed the cup completely into a basin of water and noticed that the paper remained dry.



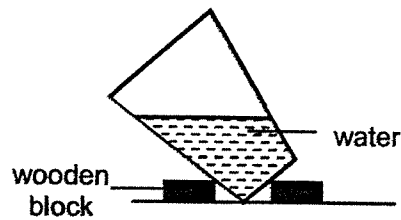
Which property of matter does this experiment show?

- (1) Air has mass.  
(2) Air occupies space.  
(3) Water does not occupy space.  
(4) Water cannot take the shape of the cup.

( )

4

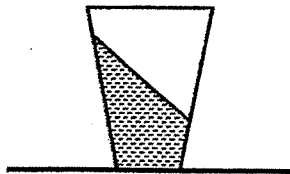
- 5 Jolene placed a cup of water into the freezer in the position as shown.



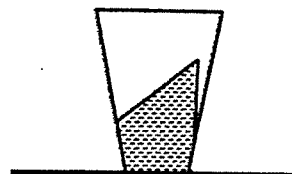
A day later, the water had frozen to form ice.

Which of the following shows the shape of the ice in the cup?

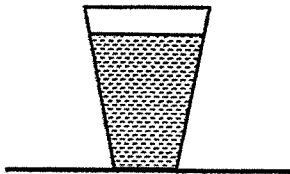
(1)



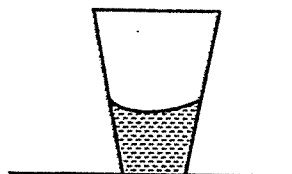
(2)



(3)



(4)



( )

- 6 David wrote the following statements about the life cycles of animals.

- A A life cycle does not repeat itself.
- B There are different stages in a life cycle.
- C Different animals go through different life cycles.
- D A life cycle ends when the animal becomes an adult.

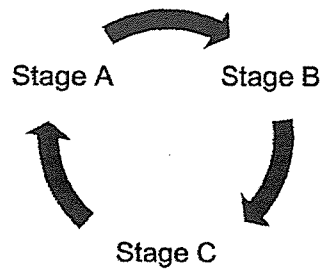
Which statements are correct?

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

( )

5

- 7 Study the life cycle of an animal shown.



Each letter, A, B and C, represents a particular stage in the life cycle of the animal. If stage C represents the egg stage, what does stage B represent?

- (1) Pupa
- (2) Adult
- (3) Larva
- (4) Nymph

( )

- 8 What are the similarities between an adult cockroach and its young?

- A Both have a pair of wings.
- B Both have a pair of feelers.
- C Both have three pairs of legs.

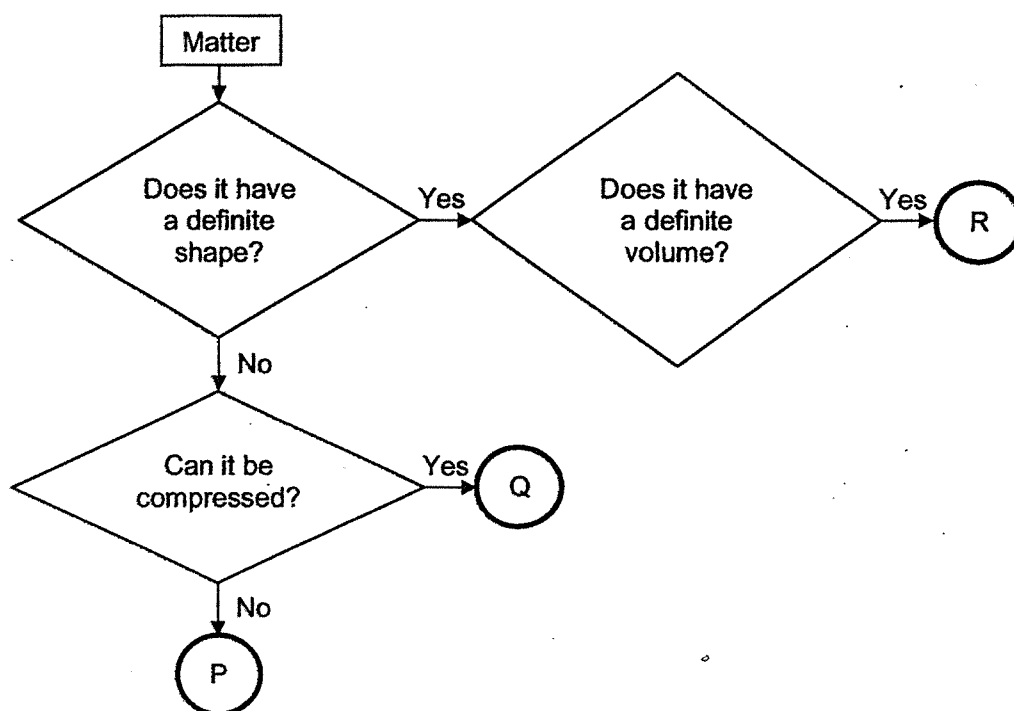
- (1) C only
- (2) A and B only
- (3) B and C only
- (4) A, B and C

( )

**Section B: (14 marks)**

Read each question carefully and write your answer in the spaces provided.

9 Study the flowchart below carefully.



(a) Based only on the flowchart above, write down

(i) two properties of Q;

[2]

1. \_\_\_\_\_

2. \_\_\_\_\_

(ii) one difference between P and R.

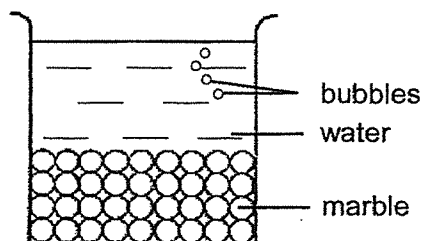
[1]

\_\_\_\_\_

\_\_\_\_\_

(Question 9 continues on the next page)

Bubbles were observed when water was poured into a container of marbles as shown below.



- (b) Which state of matter, P, Q or R, were the bubbles most likely to be in? [1]

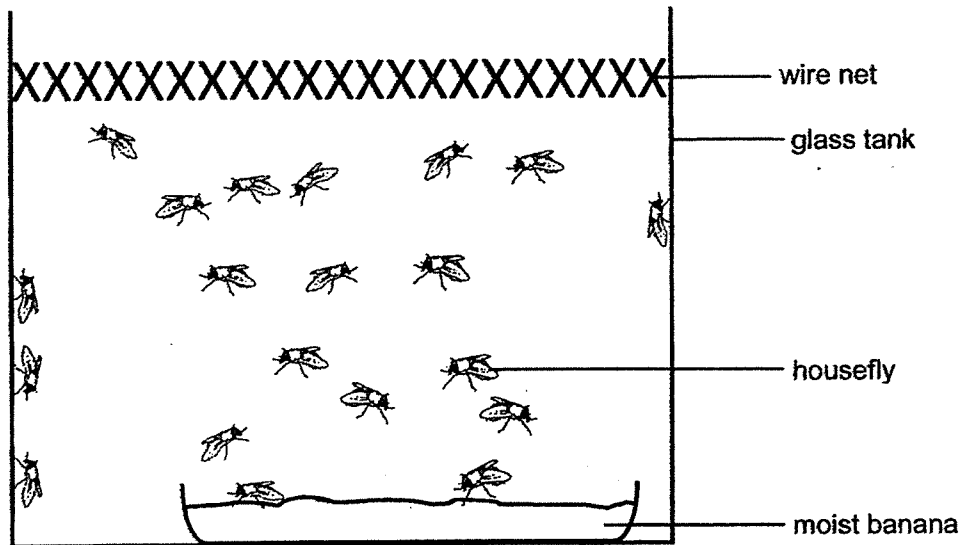
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- (c) Explain why bubbles were observed. [1]

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- 10 Alex wanted to find out about the life cycle of houseflies. He placed 20 adult houseflies in the set-up as shown.

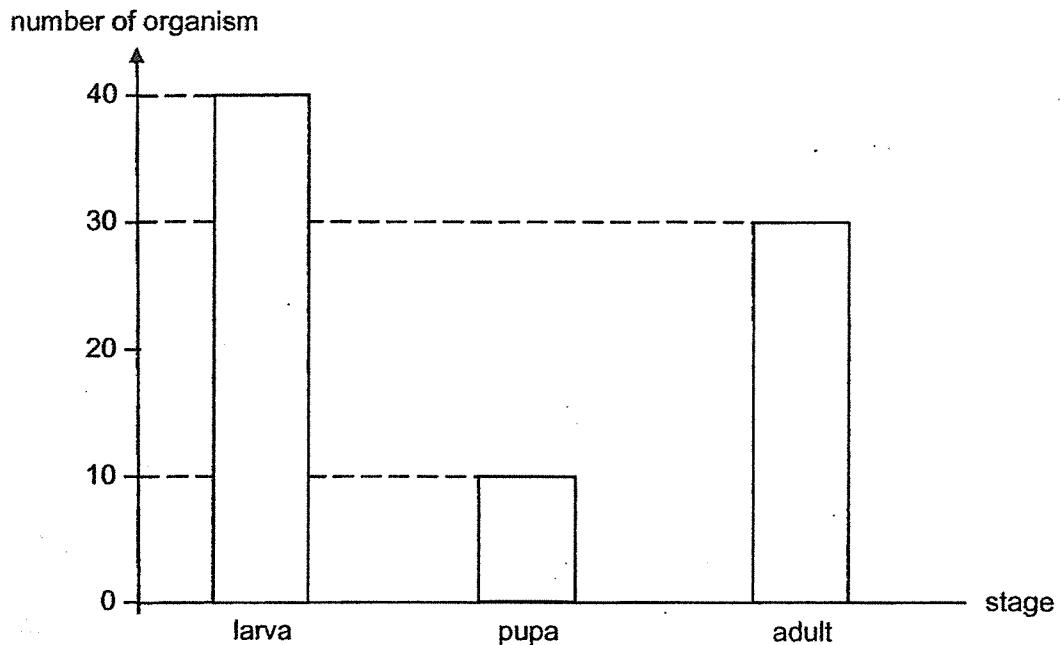


- (a) Alex placed moist banana in the glass tank. Give reasons how the moist banana ensured that the houseflies survived. [1]

- (b) Other than the reasons stated in (a), state **one** other condition present in the set-up that ensured the survival of the houseflies. [1]

(Question 10 continues on the next page)

After three weeks, Alex found larva and pupa, together with the adult houseflies in the set-up. He counted them and drew the graph below.



- (c) Explain how the larva appeared in the set-up. [1]
- 
- (d) To obtain the results above, Alex counted the number of larva, pupa and adults four times. Give a reason why. [1]
- 
- (e) Based on his results above, Alex concluded that the larva stage in the life cycle of the housefly is the longest. Do you agree with his conclusion? Explain why. [1]
- 
-

- 11 Classify the following animals according to the number of stages in their life cycle. [2]



chicken



mosquito



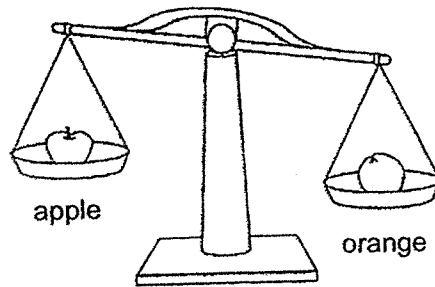
butterfly



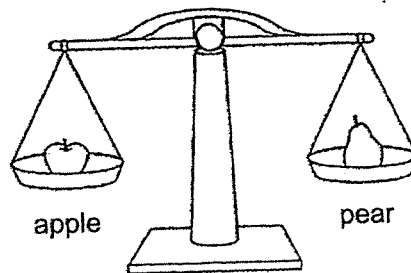
grasshopper

| Three stages | Four stages |
|--------------|-------------|
|              |             |

- 12 Gopal compares the mass of the three fruits. Study the diagrams below and circle the correct comparison.

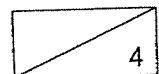


- (a) The apple ( is heavier than / has the same mass as / is lighter than ) the orange. [1]



- (b) The apple ( is heavier than / has the same mass as / is lighter than ) the pear. [1]

End of Paper



## ANSWER KEY

**YEAR** : 2021  
**LEVEL** : PRIMARY 4  
**SCHOOL** : ANGLO-CHINESE SCHOOL  
**SUBJECT** : SCIENCE  
**TERM** : WEIGHTED ASSESSMENT 4

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

|     |                        |                                                                      |                                                               |
|-----|------------------------|----------------------------------------------------------------------|---------------------------------------------------------------|
| Q9  | a)                     | i.                                                                   | 1. Q does not have a definite shape<br>2. Q can be compressed |
|     |                        | ii.                                                                  | R has a definite shape but P does not                         |
|     | b)                     | Q.                                                                   |                                                               |
|     | c)                     | Water displaced the air between the marbles and the air escaped.     |                                                               |
| Q10 | a)                     | There was a food and water in moist banana for houseflies' survival. |                                                               |
|     | b)                     | The houseflies had air                                               |                                                               |
|     | c)                     | Adult houseflies laid eggs which hatched and grew                    |                                                               |
|     | d)                     | To make the results more reliable and to reduce human error          |                                                               |
|     | e)                     | No. Only the number of each type can be concluded.                   |                                                               |
| Q11 | Three stages           |                                                                      | Four stages                                                   |
|     | chicken<br>grasshopper |                                                                      | mosquito<br>butterfly                                         |
| Q12 | a)                     | The apple <u>is lighter than</u> the orange                          |                                                               |
|     | b)                     | The apple <u>has the same mass as</u> the pear                       |                                                               |

