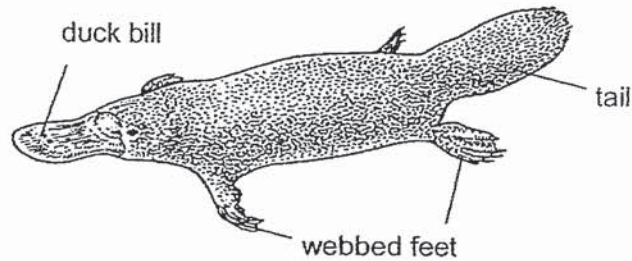




3. The diagram below shows animal P. It is a unique animal with the following characteristics:

- 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.

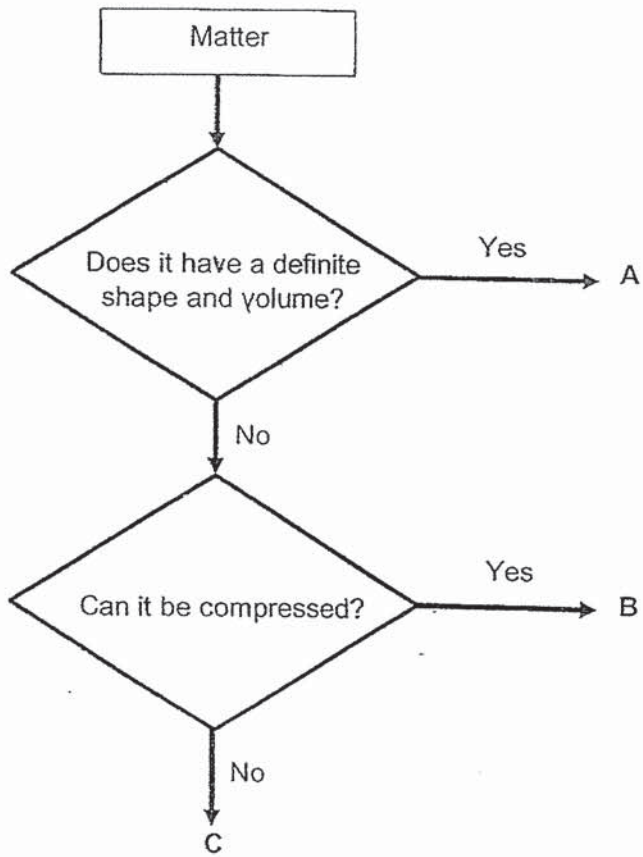


Which one of the following characteristics helps us classify animal P as a mammal?

- (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.

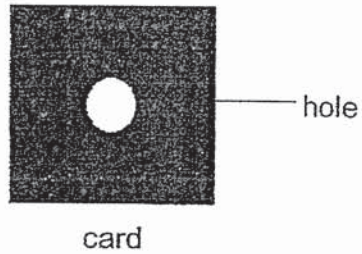


Which one of the following correctly represents A, B and C?

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

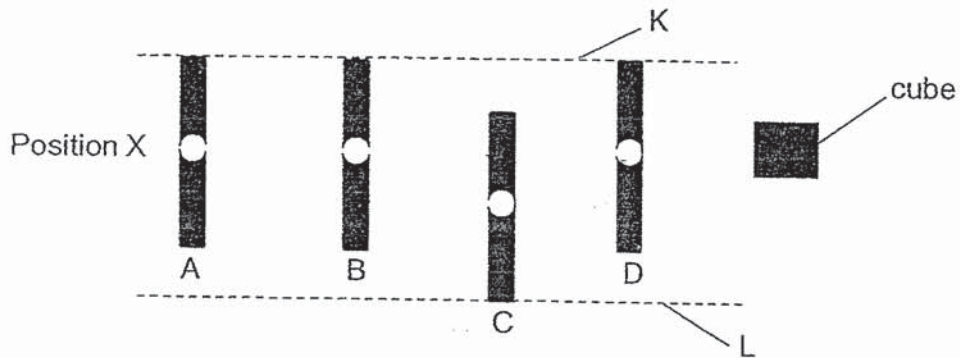
( )

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



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?

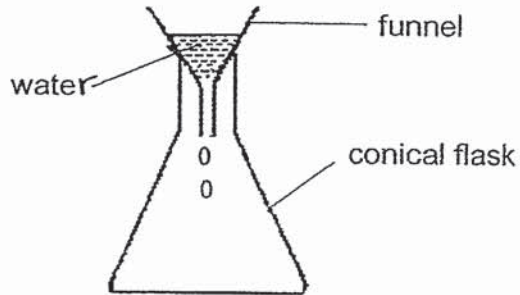
- (1) Move card C upwards to touch dotted line K.
- (2) Move card B downwards to touch dotted line L.
- (3) Move cards B, D downwards to touch dotted line L.
- (4) Move cards A, B and D downwards to touch dotted line L. ( )



**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.



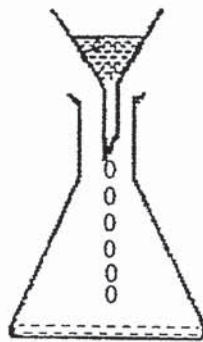
He noticed that the water did not flow into the flask quickly as expected. Instead, the water in the funnel dripped into the flask slowly.

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

---

---

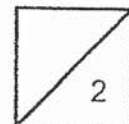
Naim's mother told him to lift the funnel up so that the water in the funnel would flow quickly into the flask.



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

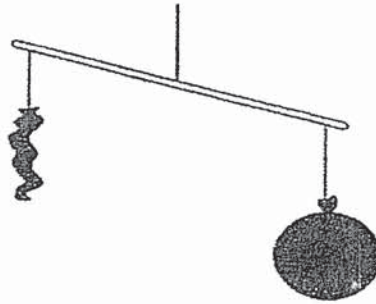
---

---





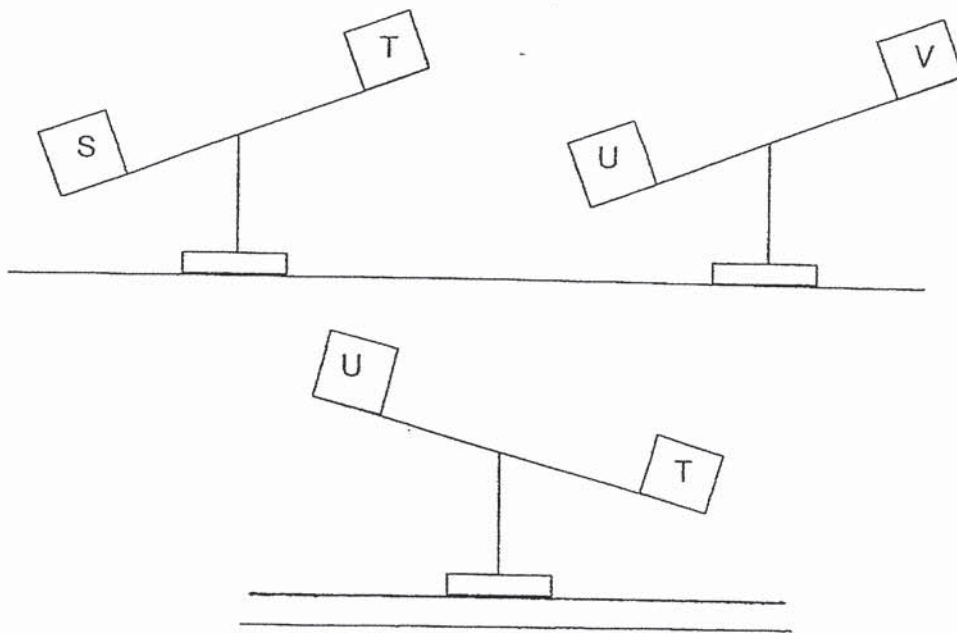
Arif balanced 2 inflated balloons on a balance. He then deflated one of the balloons and observed the results in the diagram below.



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

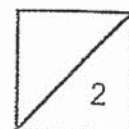
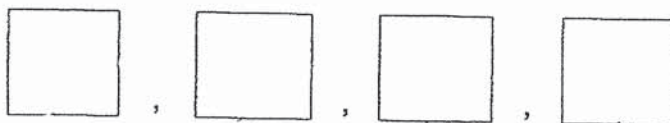
\_\_\_\_\_

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.

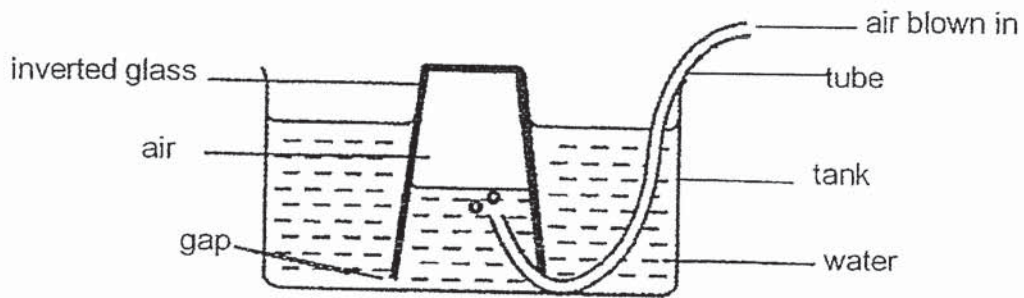


- (c) Arrange the objects, S, T, U and V from the object with the greatest mass to the one with the smallest mass. [1]

Greatest mass  $\longrightarrow$  Smallest mass



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]

---

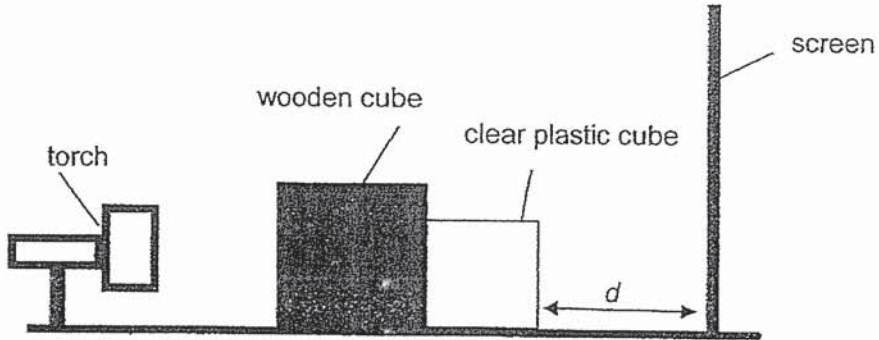
---

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

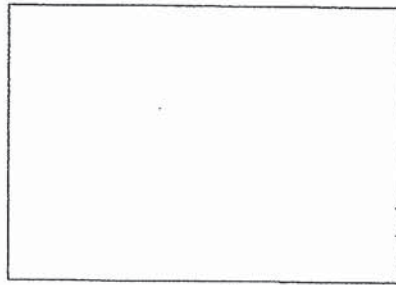
---



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]

---



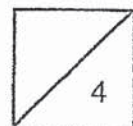
---

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

---



---



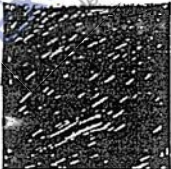
## ANSWER KEY

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