Rosyth School
Performance Task
SCIENCE
Primary 4

Name: _____

Total Marks: 20

Class: Pr 4_____ Register No. _____ Duration: 50 min

Instructions to pupils:

1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions in this booklet.
4. Write your answers in the spaces provided.

* This booklet consists of 7 printed pages (including cover page).

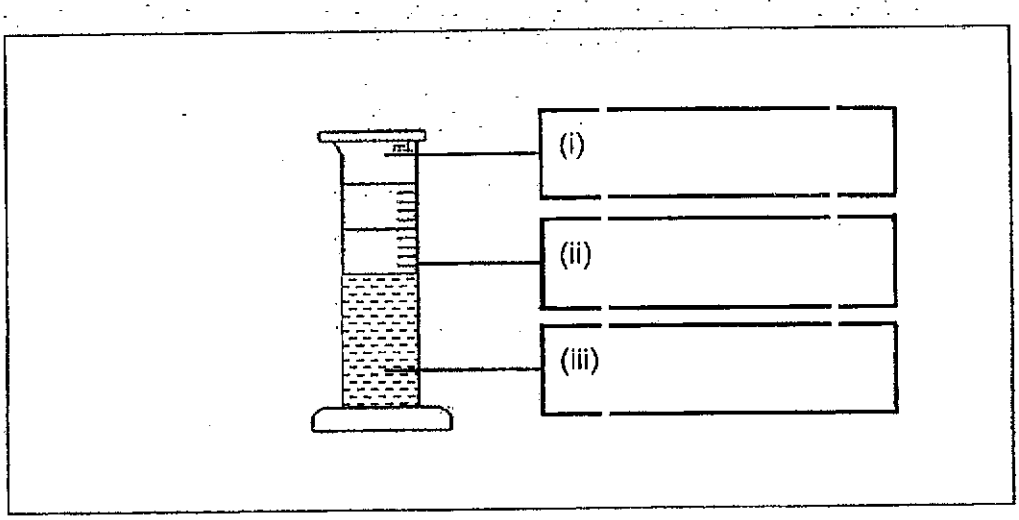
This paper is not to be reproduced in part or whole without the permission of the Principal.

Downloaded from SingaKids.com

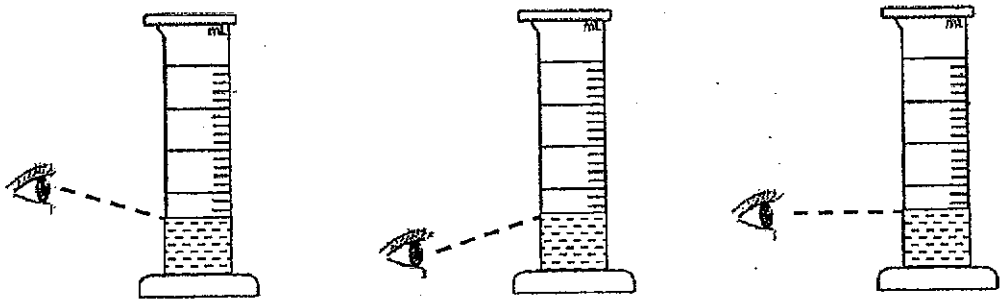
Part I (10 marks)
Read the instructions carefully and use the apparatus given to answer the questions below.

Part 1: Look at the measuring cylinder filled with water.

(a) Label the three different states of matter as indicated by the label lines. [3]



(b) Put a tick (✓) in the box that shows the correct way to read the volume of water in the measuring cylinder. [1]



Downloaded from SingaKids.com

Part II:

Aim of the experiment: To find out if the shape of a plasticine will affect its volume

Materials: rod-shaped plasticine, round-shaped plasticine and measuring cylinder with water

Procedure:

1. Find the volume of water in the measuring cylinder.
2. Record the volume of water in (a) as shown in the table below.
3. Place the round-shaped plasticine gently into the measuring cylinder.
4. Record the volume of water and volume of round-shaped plasticine in (b).
5. Find the difference in volume of (b) and (a) to find the volume of the round-shaped plasticine.
6. Record the volume of round-shaped plasticine in (c).
7. Place the rod-shaped plasticine gently into the measuring cylinder **without removing the round-shaped plasticine.**
8. Record the volume of water and volume of round-shaped plasticine and volume of rod-shaped plasticine in (d).
9. Find the difference in volume of (d) and (b) to find the volume of the rod-shaped plasticine.
10. Record the volume of rod-shaped plasticine in (e).

Result Table [5]

(a)	Volume of water	_____ cm^3
(b)	Volume of water + volume of round-shaped plasticine	_____ cm^3
(c)	Volume of round-shaped plasticine (b) - (a) = (c)	_____ cm^3
(d)	Volume of water + volume of round-shaped plasticine + volume of rod-shaped plasticine	_____ cm^3
(e)	Volume of rod-shaped plasticine (d) - (b) = (e)	_____ cm^3

(f) Which variable must be kept the same when plasticine of different shapes is prepared for the experiment? [1]

_____ of the plasticine

Downloaded from SingaKids.com

Part III (10 marks)

For questions 1 to 3, four options are given. One of them is the correct answer. Write your choice in the given brackets. Each question carries 2 marks.

1. Peter filled a syringe with some air as shown below. Then he covered the tip using some plasticine. He pushed the plunger of the syringe inwards as shown in diagram 1. However, he was not able to push the plunger in fully as shown in diagram 2.

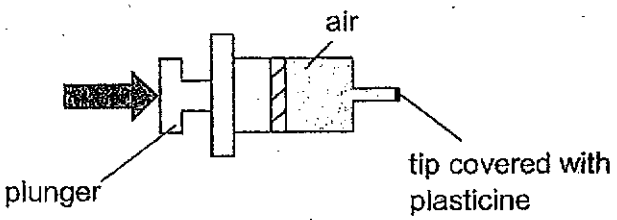


diagram 1

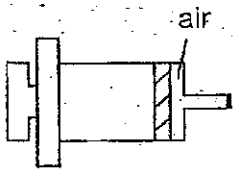


diagram 2

Why was Peter **not** able to push the plunger in fully?

(1) Air has mass.
(2) Air occupies space.
(3) Air has definite volume.
(4) Air can be compressed. ( )

Downloaded from SingaKids.com

2. Sarah observed the properties of objects, C, D and E. She recorded her observations in the table below.

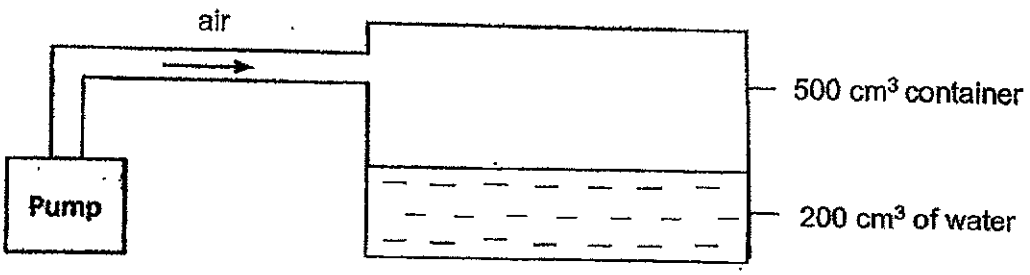
Property	Object		
	C	D	E
Does it have mass?	Yes	Yes	Yes
Does it occupy space?	Yes	Yes	Yes
Does it have a definite shape?	No	Yes	No
Does it have a definite volume?	Yes	Yes	No

Which of the following objects are matter?

(1) C and D only
(2) D and E only
(3) C, D and E
(4) None of the above

( )

3. Jenny filled a 500 cm^3 container with 200 cm^3 of water. She then pumped 100 cm^3 of air into the container.



What is the volume of air in the container now?

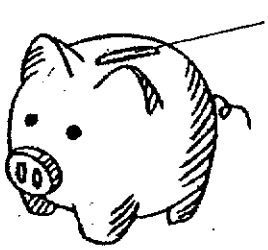
(1) 100 cm^3
(2) 200 cm^3
(3) 300 cm^3
(4) 400 cm^3

( )

Downloaded from SingaKids.com

Read questions 4 and 5 carefully. Write the answers in the space provided.

4. Ken wanted to find out the volume of his coin bank.



(a) Describe one way to find the volume inside the coin bank. [2]

Downloaded from SingaKids.com

5. Mr Lee put a pillow in a bag and sealed it up as shown in diagram 1. The mass of the bag with the pillow was 400g. Then he used a pump to remove the air from the sealed bag. The bag was flattened as shown in diagram 2.

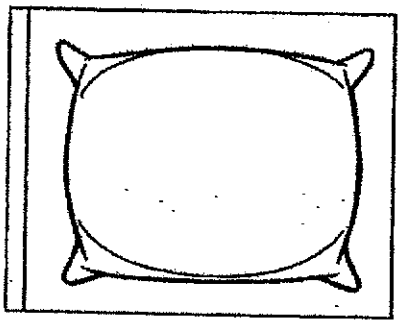


diagram 1

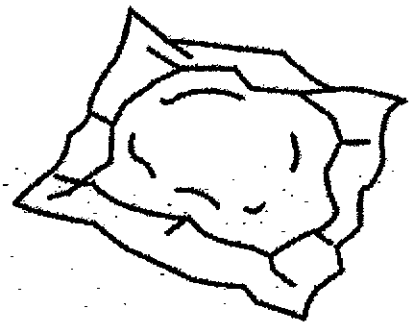


diagram 2

(a) What was likely to be the mass of the flattened bag in diagram 2?
Put a tick (✓) in the correct box. [1]

Mass of the flattened bag	Tick (✓)
Less than 400g	
400g	
More than 400g	

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

_____

_____

End of Paper

Downloaded from SingaKids.com

Downloaded from SingaKids.com

SCHOOL : ROSYTH PRIMARY SCHOOL
LEVEL : PRIMARY 4
SUBJECT : SCIENCE
TERM : WA2

PART I

a) i) gas
ii) solid
iii) liquid

b) ☐ ☐ ☑

PART II

(a)	$30cm^3$
(b)	$35cm^3$
(c)	$5cm^3$
(d)	$39cm^3$
(e)	$4cm^3$
(f)	Mass

PART III

Q 1	Q2	Q3
2	3	3

Q4)	Pour water into the coin bank till it is full. Pour the water into a measuring cylinder. Find the volume of the water.
Q5)	a) Less than 400g ☑ b) Air have mass so when the air was sucked out, its mass will be less.

Downloaded from SingaKids.com

Downloaded from SingaKids.com