CA1

Rosyth School
First Continual Assessment for 2005
Science
Primary 4

50

Name: _____ Total Marks:

Class: Pr 4 - ____ Register No. _____ Duration: 1h

Date: 3rd March 2005 Parent's Signature: _____

Instructions to Pupils:

1. Do not open this booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 parts, Sections A and B.
4. For questions 1 to 15 in Section A, shade the correct ovals on the Optical Answer Sheet (OAS).

	Maximum	Marks Obtained
Section A	30 marks	
Section B	20 marks	
Total	50 marks	

* This paper consists of 15 pages altogether.

Section A (30 Marks)

For each question from 1 to 15, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet.**

1. Patrick classified some objects into two groups, X and Y, as shown in the table below.

Group X	Group Y
coin	cloth
button-shaped magnet	cat's fur

How did he group the objects?

He grouped them according to _____.

(1) their shape

(2) their colour

(3) their hardness

(4) the materials they are made of

2. Which one of the items listed below is not matter?

(1) Air

(2) Wind

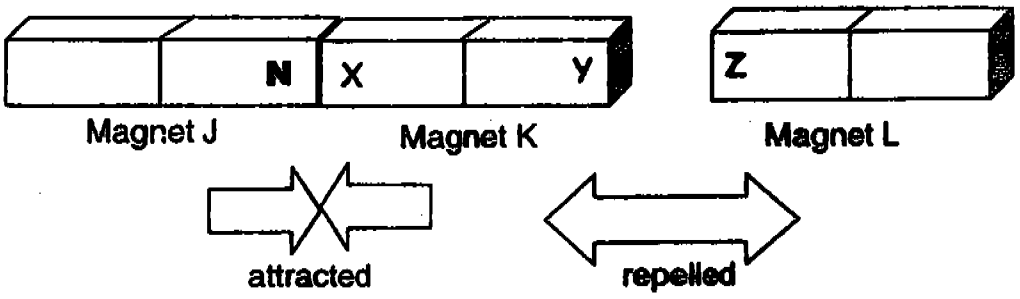
(3) Water

(4) Sunlight

(Go on to the next page)

3. Andrew has 3 bar magnets J, K and L. However, only magnet J is labelled with its North Pole. He placed the 3 magnets close together to find out the poles of the other magnet.

He recorded his observations in the diagram shown below.



What are the poles of magnets K and L at position X, Y and Z?

	Magnet K		Magnet L
	X	Y	Z
(1)	South	North	South
(2)	North	South	North
(3)	North	South	South
(4)	South	North	North

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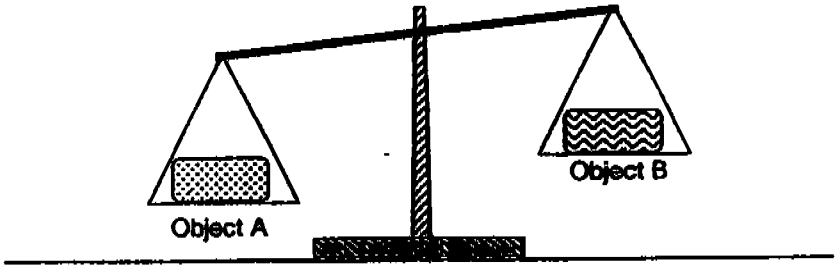
4. John has two objects, A and B. The two objects are of the same size and shape. He put them on a lever balance as shown in the diagram below.



He wrote four statements about what he observed.
Which statement is false?

(1) Object A is heavier than object B
(2) Object A has a bigger mass than object B.
(3) Object A takes up less space than object B.
(4) The two objects are made of different materials.

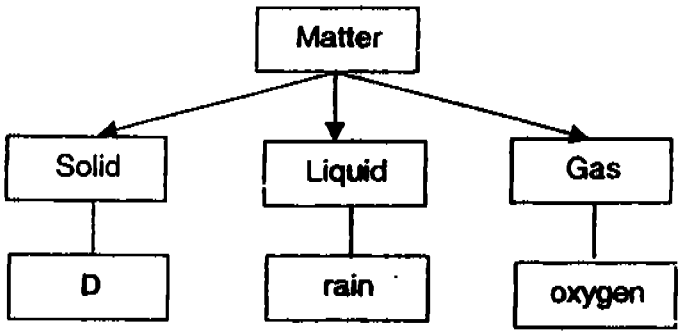
5. Which of the following is true about all solids, liquids and gases?

A: They have mass.
B: They can be seen.
C: They have definite shape.
D: They have definite volume.

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

(Go on to the next page)

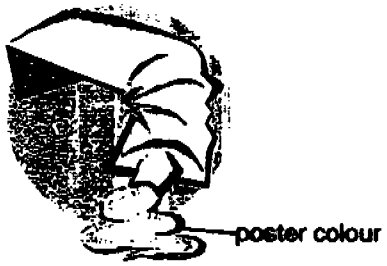
6. Study the diagram shown below carefully.



Which one of the following could be D?

(1) oil
(2) wind
(3) cloud
(4) rubber band

7. The tube shown below contains poster colour.



Which of the following statements about the poster colour is/ are correct?

A: It has definite mass.
B: It has definite shape.
C: It has definite volume.

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

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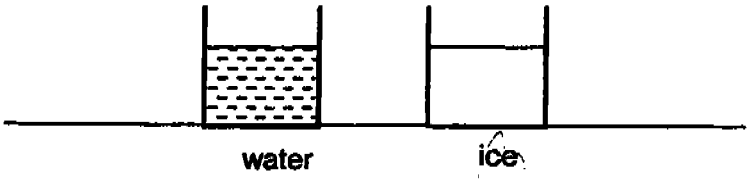
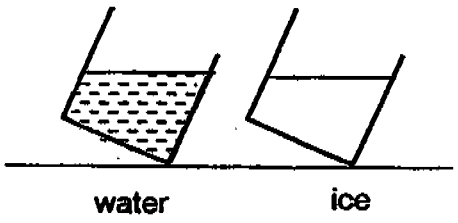
8. Susan had two identical plastic containers that contained water and ice as shown below.



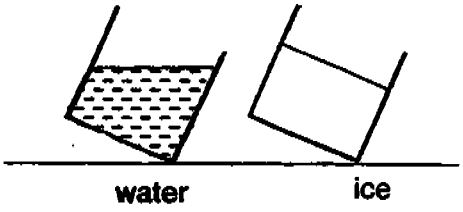
She tilted them to observe what would happen.

Which two beakers below show what would happen when the beakers were tilted?

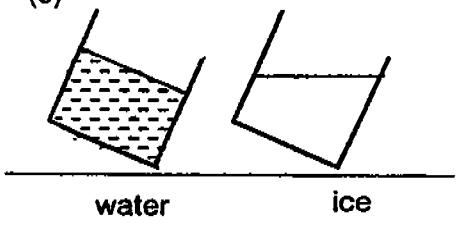
(1)



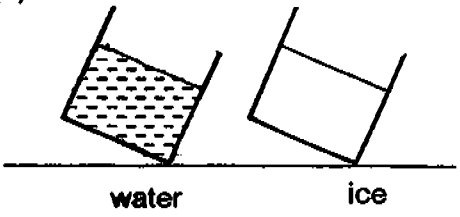
(2)



(3)



(4)



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9. Which one of the following shows what happens at freezing point of water?

(1) Water in the liquid state changes to a solid.
(2) Water in the solid state changes to a liquid.
(3) Water in the gaseous state changes to a solid.
(4) Water in the gaseous state changes to a liquid.

10. The table below shows water at its different states and its temperature. Which one is wrongly matched?

	Water in different states	Temperature
(1)	Ice	0°C
(2)	Steam	100°C
(3)	Tap water	38°C
(4)	Boiling water	90°C

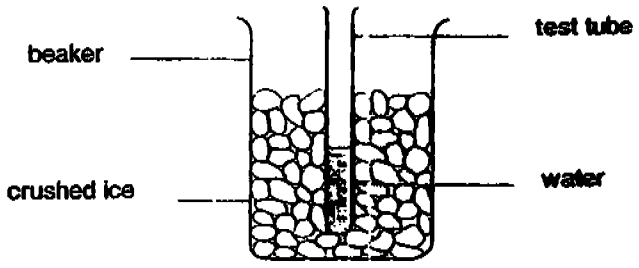
(Go on to the next page)

11. Which of the following processes is likely to take place when water is heated?

A: Boiling
B: Freezing
C: Evaporation
D: Condensation

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

12. Mrs Lee filled a test tube with tap water. She placed it into a beaker filled with crushed ice.



She asked her pupils to predict what would happen in the set-up after 10mins.
Her pupils wrote the following statements.

Andy: The temperature of the crushed ice will decrease.
Bryan: The temperature of the crushed ice will increase.
Clara: The temperature of the water in the test tube will increase.
Denise The temperature of the water in the test tube will decrease.

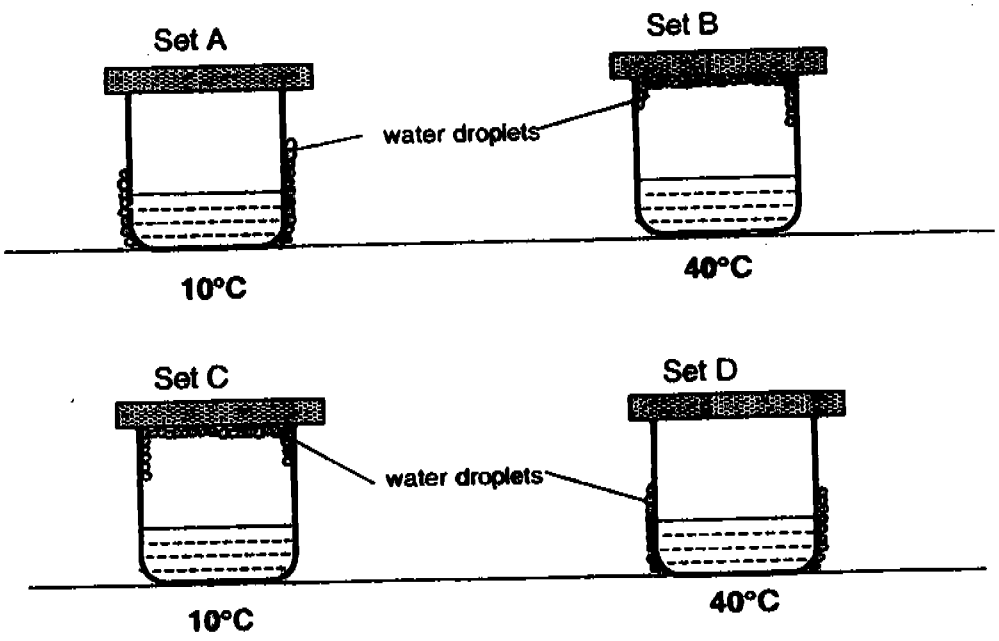
Who is/ are correct?

(1) Andy only
(2) Bryan only
(3) Andy and Clara only
(4) Bryan and Denise only

(Go on to the next page)

13. Gary's teacher gave him a set of drawings of beakers of water. He was asked to draw in water droplets in each of the 4 diagrams to show where water droplets would form when water at different temperatures were poured into the beakers.

The diagrams shown below are Gary's drawings.



Which drawings of Gary's is/ are correct?

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

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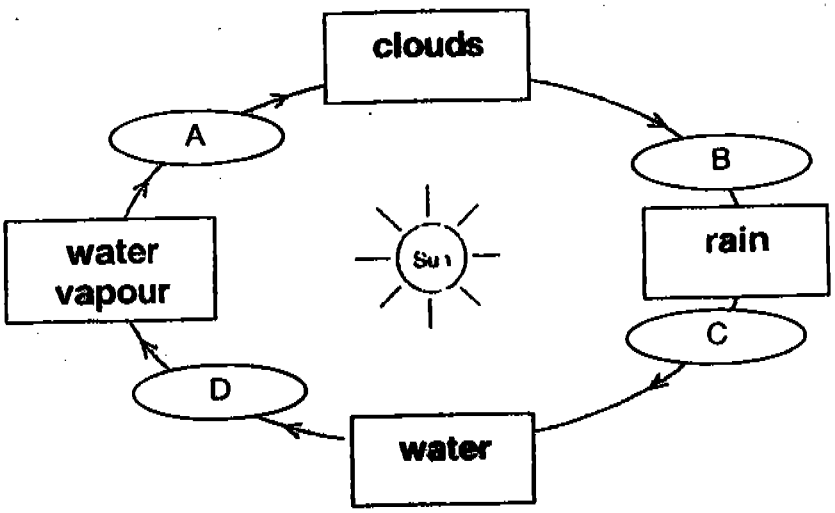
For questions 14 and 15, refer to the water cycle diagram below.



14. Which arrow represents the process of condensation?

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

15. Which of the following are the sources of water for the water cycle above?

A: Underground water
B: Water from rivers, seas and oceans
C: Water vapour from plants and animals

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

(Go on to the next page)

10

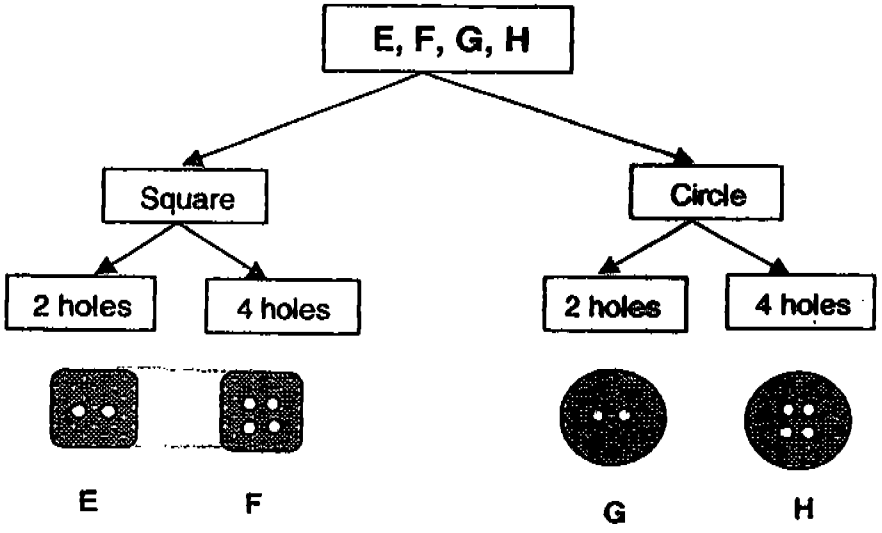
Section B (20 Marks)

Write your answers clearly in this booklet.

16. Match the following objects to the materials they are made of.
Each material can be used only once. (2m)

	Objects		Materials
(a)	Key	♦	♦ Plastic
(b)	Tyres	♦	♦ Clay
(c)	Cooking pot	♦	♦ Metal
(d)	Soft drinks bottle	♦	♦ Rubber

17. Study the following diagram carefully and answer the questions that follow.



(a) Describe one similarity between buttons E and F. (1m)

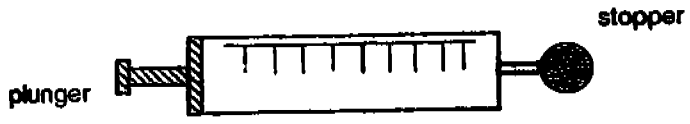
_____

(b) Describe one difference between buttons F and G. (1m)

_____

_____

18. Alex conducted an experiment about air using the syringe shown below. He began by pulling the plunger back so that air enters the syringe. After that, he covered the other end of the syringe tightly with a stopper. Then he pushed the plunger in.



(a) Would he be able to push the plunger in? (1m)

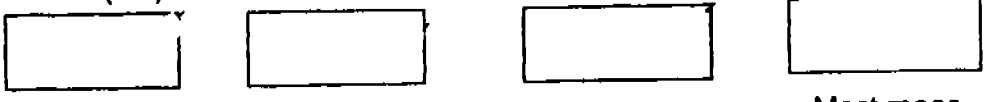
_____

(b) Give a reason for your answers in (a). (1m)

_____

19. Study the following diagrams carefully.

Arrange the letters starting with the least mass. Write the letters in the boxes below. (2m)



Least mass

Most mass

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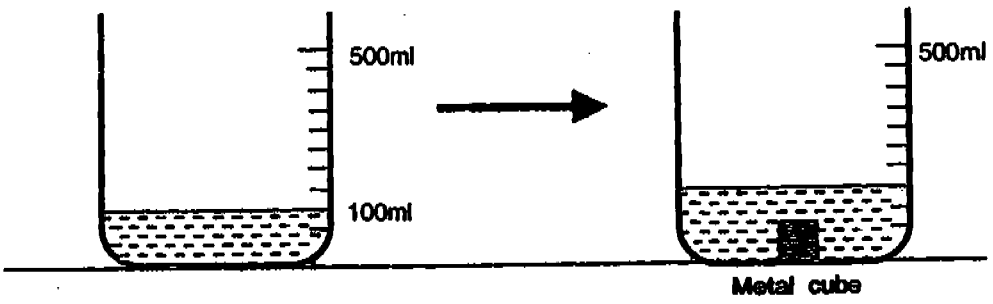
12

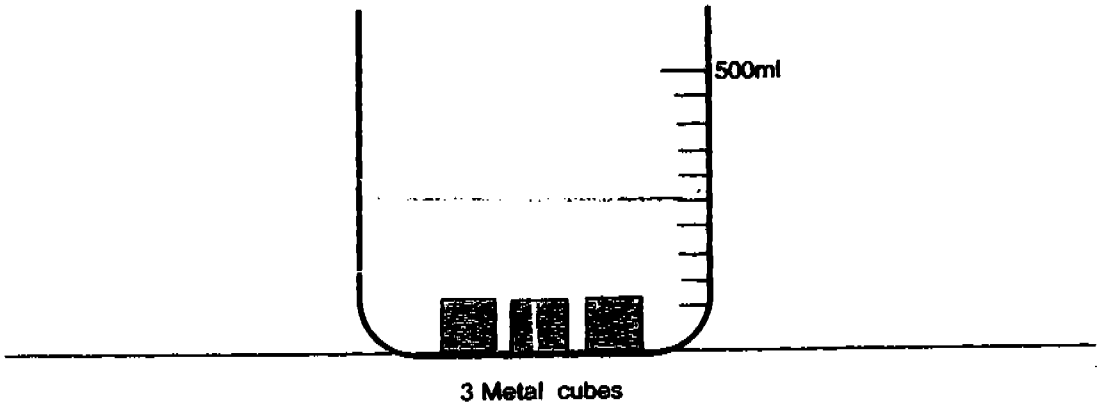
20. A beaker contains 100ml of water. When a metal cube is put into the beaker, its water level rises to 150ml.



(a) Explain why the water level rises. (1m)

When 2 more similar metal cubes were placed in the beaker of water. Its water level rises further.

(b) Draw the new water level in the diagram below.(1m)



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21. Jane took two containers, P and Q, and filled them with 20ml of water each. She then left the two containers near her window for two days.

Container P Container Q

After 2 days, she observed that there was less water in both containers.

(a) Name the process that had taken place in both containers. (1m)

_____

(b) Describe the change of state of water that had taken place in the above set up. (1m)

_____

Jane took a measuring cylinder and measured the amount of water left in each of the two containers.
She found that there was 5ml of water left in container Q.

What do you think was the amount of water left in container P?
(c) Write the amount of water left in container P in the space below. (1m)
The amount of water left in container P : _____

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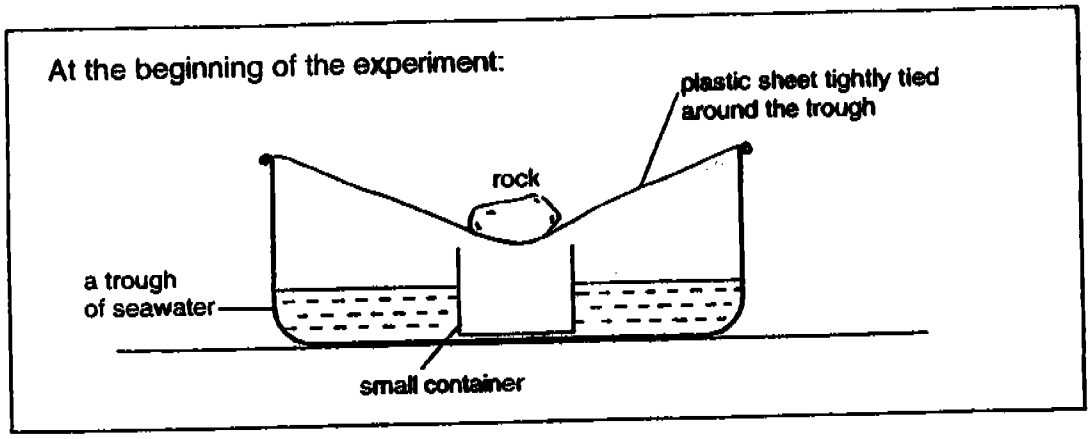
22. George set up an experiment using the apparatus shown below.



After 3 days, he removed the plastic sheet. He recorded his observations on a piece of paper.

Read the observations that he had written carefully and decide whether they are correct or wrong. Put a tick (√) for correct observation and a cross (x) for wrong observations in the boxes next to the statements. (3m)

(a) There is lesser water in the trough.

(b) There is water in the small container.

(c) The water in the small container is salty.

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23. Linda conducted an experiment to find out how the exposed surface area affects the rate of evaporation. She followed these steps:

Step 1: She used four identical towels T, U, V and W.

Step 2: She folded each of the towels in different ways.

Step 3: She placed each of the towels on a tray.

Step 4: She poured one glass of water to each of the four towels.

Step 5 She checked for the dryness of the towels at hourly intervals.

She recorded the results of her observations in the table shown below.

Order	Towel
1st to dry	U
2nd to dry	V
3rd to dry	W
4th to dry	T

(a) Based on the results, match the towel to the number of times it was folded. (2m)

Towel		Folding
T	•	• Not folded at all
U	•	• Folded once
V	•	• Folded twice
W	•	• Folded three times

(b) Which towels had the biggest and the smallest exposed surface area? (1m)

(i)Biggest exposed surface area : _____

(ii)Smallest exposed surface area: _____

(c) How does the amount of exposed surface area affect rate of evaporation? (1m)

_____

End of Paper

CA1

ROSYTH SCHOOL
FIRST CONTINUAL ASSESSMENT FOR 2005
SCIENCE
PRIMARY FOR

1) 3

2) 4

3) 4

4) 3

5) 1

6) 4

7) 3

8) 2

9) 1

10) 4

11) 1

12) 4

13) 2

14) 1

15) 4

16) a) Metal b) Rubber

c) Clay d) Plastic

17) a) They are both square in shape

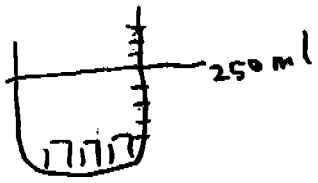
b) Button F has 4 holes but button G has 2 holes.

18) a) Yes

b) Air can be compressed.

19) K G H J

20) a) The cube takes up space previously occupied by the water.

b) 

21) a) Evaporation

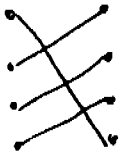
b) From liquid to gas

c) 9 ml

22) a) ✓

b) ✓

c) ✗

23) a) 

b) i) Towel U

ii) Towel T

c) The bigger the exposed surface area, the faster the rate of evaporation.

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