Pei Chun Public School
Semestral Assessment 1 – 2004
Science
Primary 4

S 87

Name : _____ ( ) Date : 13 May 2004

Class : Pri. 4 ( ) Parent's Signature : _____

Science Teacher : _____ Marks : 85

Time : 1h 15 min

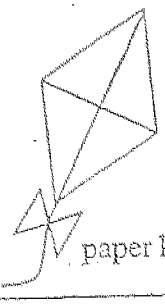
Section A (25 × 2 marks)
For questions 1 to 25, choose the most suitable answer and shade its number (1, 2, 3 or 4) on the Optical Answer Sheet (OAS) provided.

1. Which of the following groups of things is obtained from living things?

(1) bark, hair, paper, tile
(2) bone, glass, sap, wood
(3) cotton, clay, leaf, milk
(4) cane, leather, silk, wool

( )

2. Four things are classified into 2 groups as shown below.

Group 1		Group 2	
 inflated ball	 tin can	 polystyrene cup	 paper kite

The things are grouped according to _____.

(1) how hard they are
(2) what they are made of
(3) whether they are waterproof
(4) whether they can float on water

( )

3. Which of the following pairs of animals has scales?

(1) frog and lizard
(2) whale and shark
(3) crocodile and snake
(4) dolphin and catfish

( )

4. Some animals are grouped according to how they reproduce.

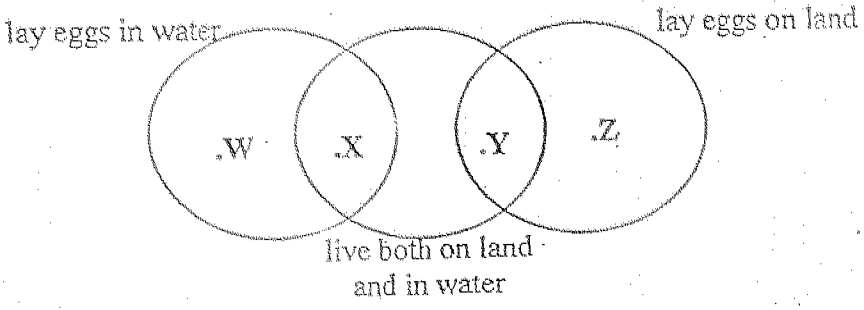
Group A	Group B
duck	whale
frog	gibbon
guppy	platypus
tortoise	sea lion

Which two animals are wrongly grouped in the classification table?

(1) duck and whale
(2) frog and gibbon
(3) guppy and platypus
(4) tortoise and sealion

( )

5. In the Venn diagram below, W, X, Y and Z represent 4 animals.



Which animals do the letters, W, X, Y and Z, represent?

	W	X	Y	Z
(1)	goldfish	toad	penguin	grasshopper
(2)	shark	frog	duck	dragonfly
(3)	fighting fish	tortoise	kingfisher	crocodile
(4)	guppy	mosquito	turtle	hen

( )

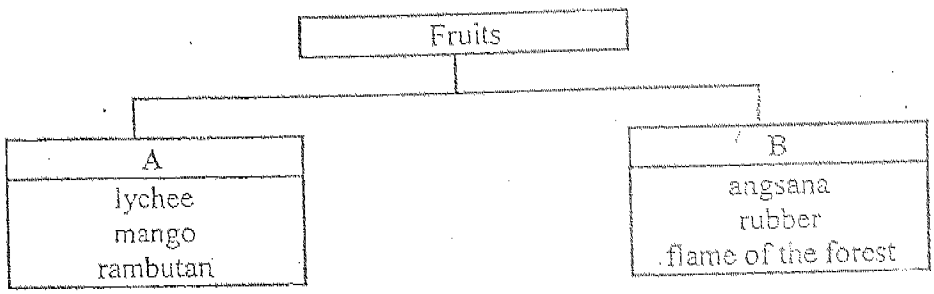
6. Which of the following describe the importance of plants to living organisms?

A : provide shelter
B : keep the air fresh
C : provide food or material
D : beautify the surrounding

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

( )

7. The classification table below shows how some fruits are being grouped.



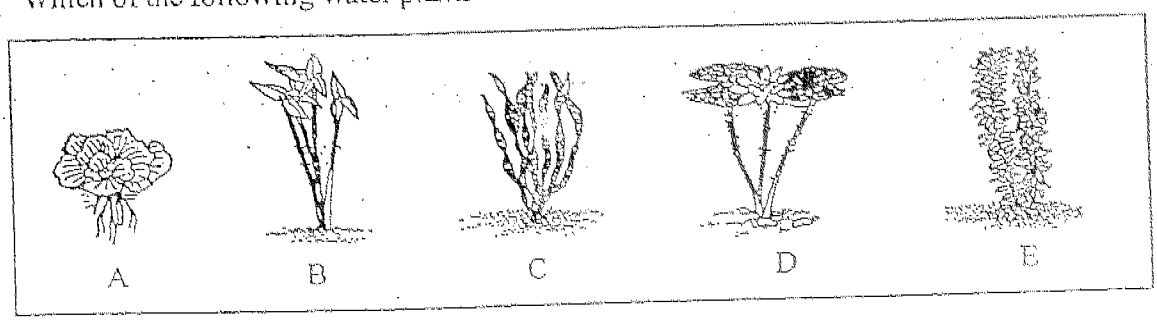
The fruits are grouped according to:

A : the colour of the fruits
B : the texture of the fruits
C : edible and inedible fruits
D : the number of seeds in the fruits

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

( )

8. Alice stood by a 2-metre deep pond completely covered with duckweeds. Which of the following water plants would she most likely see?



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

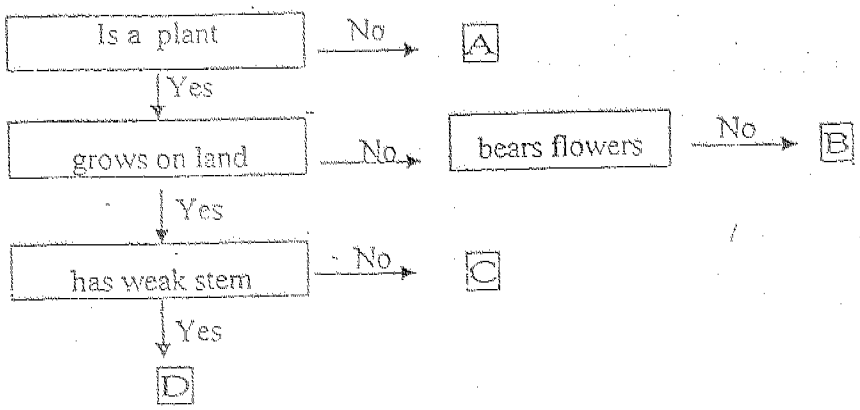
( )

9. Spores are similar to seeds in that they are _____.

(1) produced by non-flowering plants
(2) able to grow into new plants
(3) scattered by wind
(4) small and light

( )

10. In the flowchart below, A, B, C and D represent 4 different organisms.



Which of the following matches the correct organisms to the letters?

	A	B	C	D
(1)	puff ball	water moss fern	rose	cucumber
(2)	mushroom	duckweed	bougainvillea	potato
(3)	moss	water lettuce	orchid	tomato
(4)	fungus	ladder fern	blue pea	pumpkin

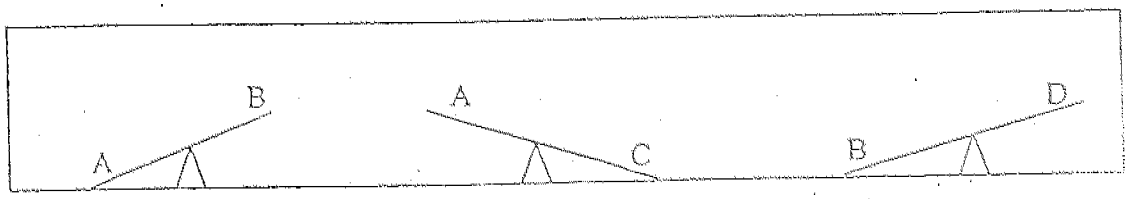
( )

11. The following objects are grouped according to the type of materials they are made of. Which group has been classified wrongly?

(1) coin, nail, safety pin
(2) eraser, balloon, tyre
(3) t-shirt, towel, raincoat
(4) window pane, mirror, television screen

( )

12. The diagram below shows what happens to a lever balance when 2 objects of the same materials are placed on it.



Which of the following correctly arranges the mass of objects A, B, C and D from the biggest to the smallest?

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

( )

13. The table shows the properties of objects P, Q, R and S.

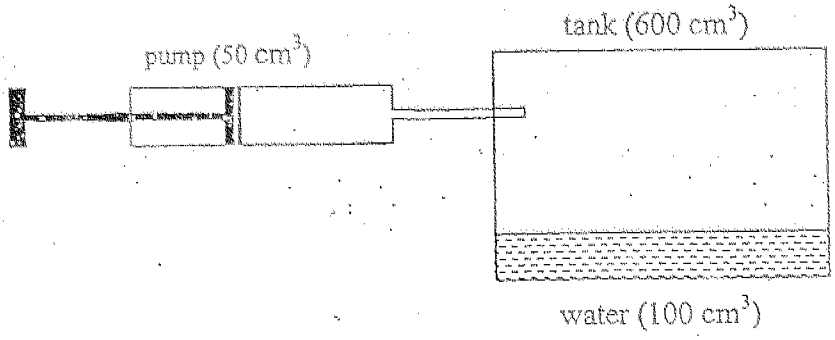
Property	P	Q	R	S
has mass	✓	✓	✓	✓
has definite volume	✓	✓	X	✓
has definite shape	✓	X	X	✓
can be compressed	X	X	✓	✓

Which of the following objects matches P, Q, R and S?

	P	Q	R	S
(1)	chalk	shampoo	dew	cotton
(2)	nail	oil	cloud	tissue paper
(3)	pebble	honey	steam	plasticine
(4)	wood	mercury	water vapour	sponge

( )

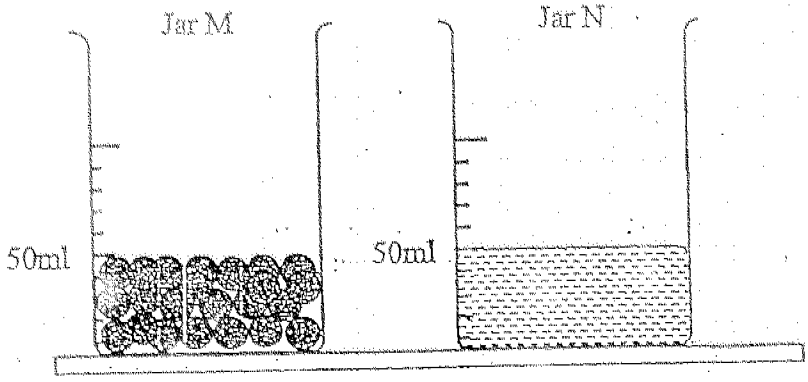
14. The diagram shows an air pump connected to a glass tank. The capacity of the tank is 600 cm^3. The tank contains 100 cm^3 of water.



When the pump is pushed completely in, 50 cm^3 of air is forced into the tank.
What is the volume of air in the tank now?

(1) 500 cm^3
(2) 550 cm^3
(3) 600 cm^3
(4) 650 cm^3 ( )

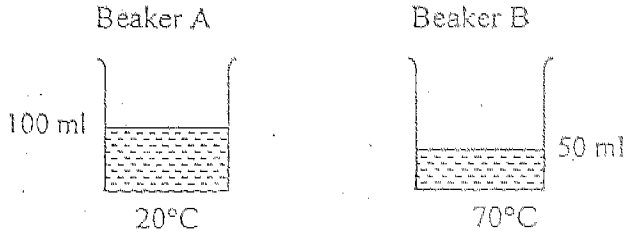
15. The diagram shows 2 jars, M and N. Jar M contains marbles and Jar N contains 50 ml of water.



The water in Jar N is then poured into Jar M. Which is the likely water level in Jar M?

(1) 100 ml
(2) 95 ml
(3) 75 ml
(4) 50 ml ( )

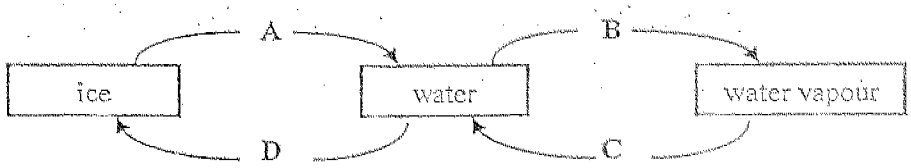
16. The diagram below shows 2 beakers of water at different temperatures.



Both beakers of water were poured into another beaker, C.
What is the likely temperature of water in Beaker C?

(1) 20 °C
(2) 40 °C
(3) 70 °C
(4) 90 °C ( )

17. The letters, A, B, C and D, in the diagram below shows 4 processes that can take place when water changes its states.



Which one of the following matches the processes to the letters shown in the diagram?

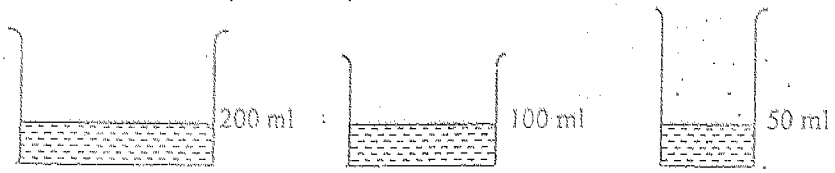
	A	B	C	D
(1)	freezing	condensation	evaporation	melting
(2)	melting	evaporation	condensation	freezing
(3)	condensation	evaporation	freezing	melting
(4)	melting	condensation	evaporation	freezing

( )

18. Which of the following statements describes wrongly what happens when water is being boiled continuously?

(1) The amount of water decreases.
(2) Bubbles burst at the water surface.
(3) The temperature of the water is 100°C.
(4) Steam is seen rising from the boiling water. ( )

19. The diagram below shows 3 containers of tap water which were left by an open window. The purpose was to find out the effect of temperature of the surrounding on the rate of evaporation of water.

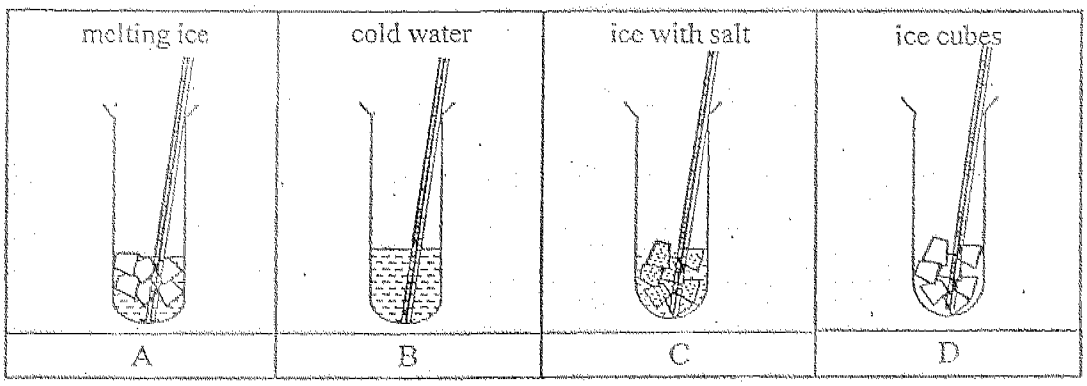


Which of the following explain why the test was incorrectly carried out?

A: The temperature of the water was the same.
B: The size of the containers was different.
C: The place where the containers were put was the same.
D: The amount of water in the containers was different.

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

20. Aileen set up 4 test tubes, A, B, C and D as shown in the diagram. Then she read the temperature from the thermometer in each tube.



Which of the following indicates the temperature in each test tube wrongly?

	Temperature	Above 0 °C	At 0 °C	Below 0 °C
(1)	A	√		
(2)	B	√		
(3)	C			√
(4)	D		√	

( )

21. Which of the following statements are correct about processes in a water cycle?

A: Evaporation of water takes place at various temperatures.
B: Heat is given out to the surrounding when water freezes.
C: Condensation of water occurs when rain falls.
D: The water cycle is a continuous process.

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

( )

22. For water cycle to take place, there must be _____.

A: heat
B: light
C: cold air
D: changes in state of water

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

( )

23. Which of the following plays a part in the water cycle?

A: Desalination of sea water
B: Treatment of waste water
C: Drying up of rainwater on the road
D: Giving out of water vapour by plants

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

( )

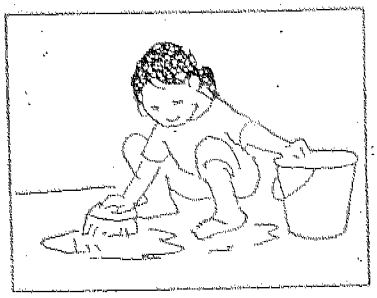
24. Which of the following activities is most unlikely to cause water pollution?

(1) Littering at the beach
(2) Oil spills from tankers
(3) Fishing at the reservoirs
(4) Cutting down many trees near rivers

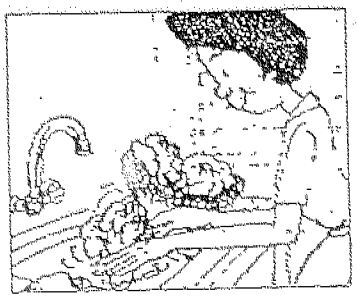
( )

25. Which of the following activities does not help to conserve water at home?

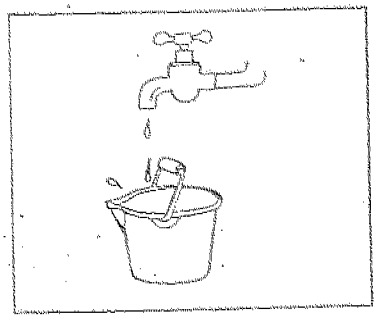
(1)



(2)



(3)



(4)

( )

For Questions 26 and 27, please refer to Booklet K.

End of Section A

Pei Chun Public School
Semestral Assessment 1 – 2004
Science
Primary 4

Name : _____ _____ ( ) Date : 13 May 2004

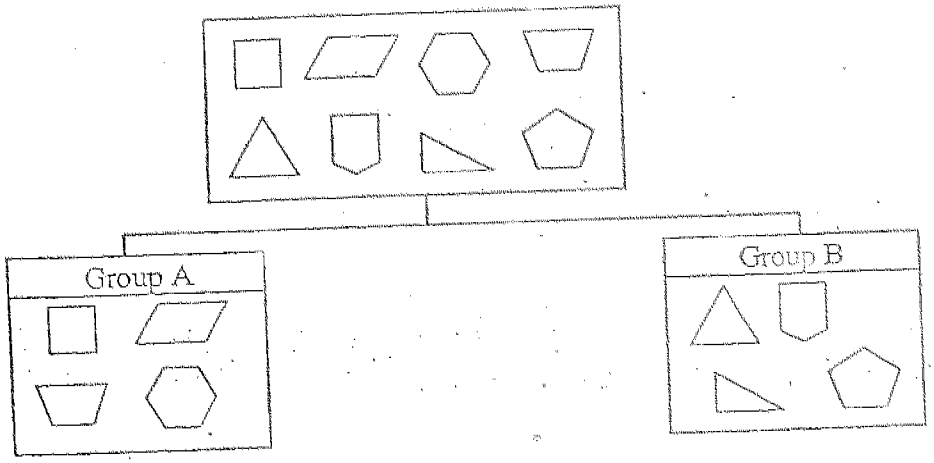
Class : Pri. 4 ( ) Time : 1h 15 min

Science Teacher : _____ Parent's Signature : _____

Marks for Section A	54
Marks for Section B	25
Marks for Booklet K (exclude Section A Qns. 26 to 27)	6
Marks for Practical Test (conducted on 17 April 2004)	15
Total marks	100

Section B (25 marks)
For questions 28 to 37, write the answers in the spaces provided.

28. Some shapes are grouped in the classification table as shown.



a) The shapes were grouped according to _____ (1m)

b) Give a heading to each group. (1m)

Group A: _____ Group B: _____

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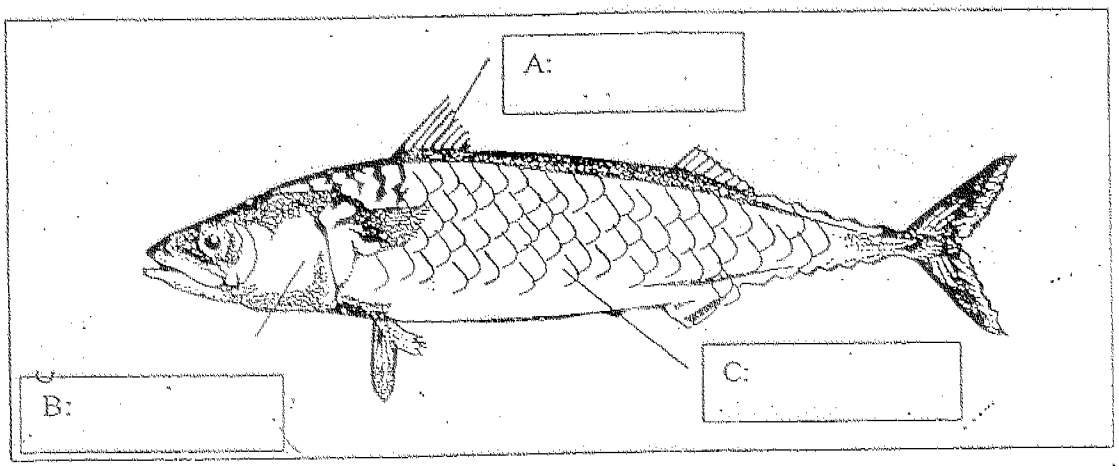
29. a) Label the 3 parts of the fish in the diagram. (1½m)



b) What helps the fish to get air from the water? (½m)

_____

30. Three pots of money plants, A, B and C, are grown in different places under different conditions as listed in the table below.

Pot	Place where plant is put	No. of times of watering
A	under a shady tree	0
B	in a dark store room	once a day
C	by the window	once a day

a) Which plant will grow most healthily? Why? (1m)

_____

_____

b) Which plant(s) will continue to grow for a few days but turn yellow and thin? Why? (1m)

_____

_____

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31. Write 'T' for a true statement and 'F' for a false statement in the boxes provided. (2m)

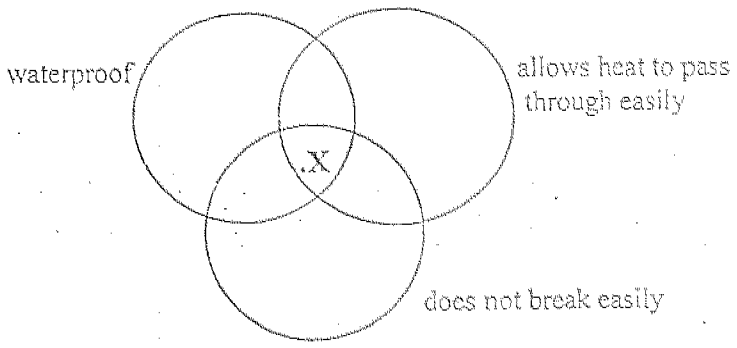
(a) Mushrooms and ferns are non-flowering plants. ☐

(b) Yeast is an example of a useful micro-organism. ☐

(c) Mould grows well in warm and damp places. ☐

(d) Spores are found in the gills of the mushrooms. ☐

32. The Venn diagram below shows the properties of some materials.



a) Describe the properties of material X. (1m)

_____

_____

b) What material is X most likely to be ? (1m)

_____

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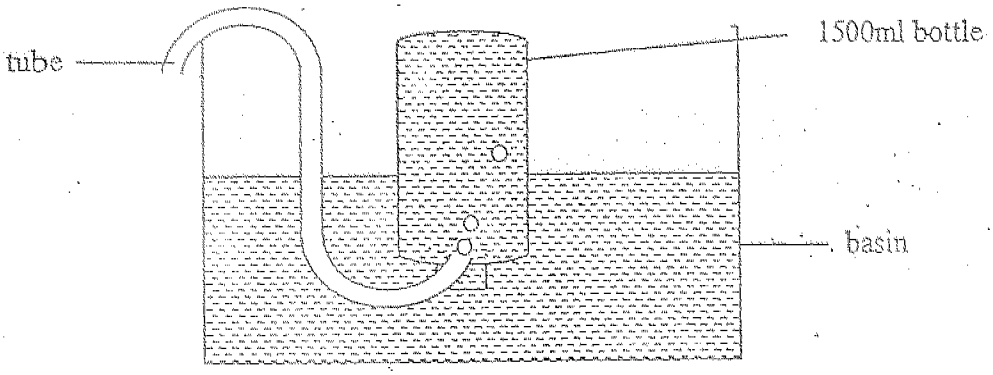
33. Elijah set up an experiment as shown. He took a deep breath and started blowing out as much air as he could into the bottle through the long plastic tube.

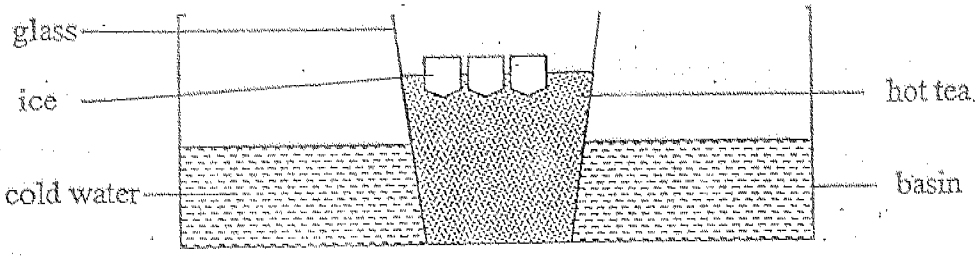


a) What would happen to the water level in the bottle after some time? (1m)

b) At the end of the experiment, the volume of water left in the bottle is 500 ml. Based on the experiment, how much air can Elijah's lungs hold? (1m)

c) What did the experiment tell us about the property of air? (1m)

34. A glass of hot tea is put into a basin of cold water as shown.

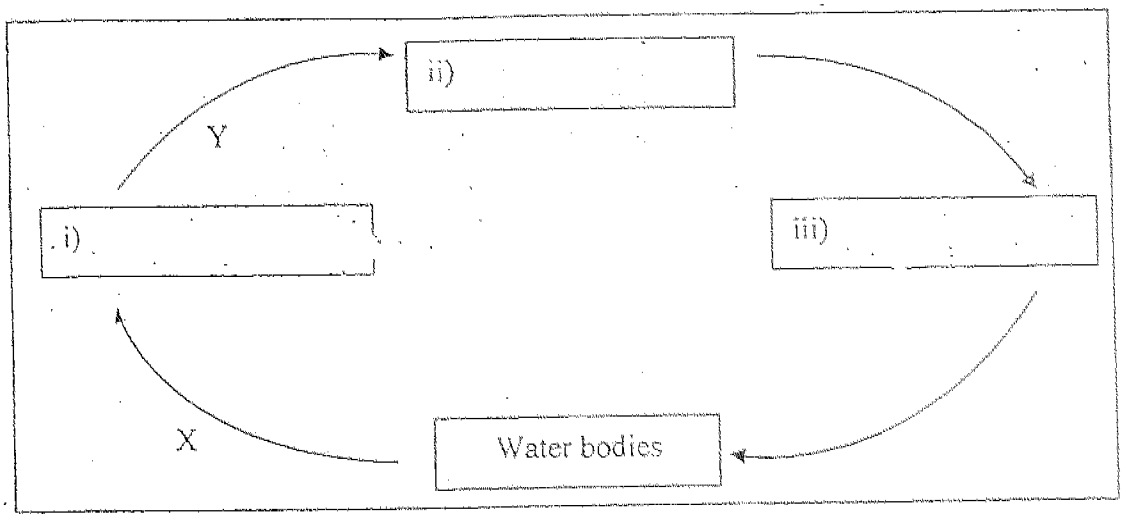


a) Tick in the table below to show which items in the diagram gain heat or lose heat after a few minutes. (1½m)

Item	Gains heat	Loses heat
cold water		
hot tea		
ice		

b) If the glass of tea was to be left in the basin for a few hours, what would be its likely new temperature? (1m)

35. a) Complete the following diagram on water cycle with the correct words. (1½m)



b) What are the processes marked X and Y? (1m)

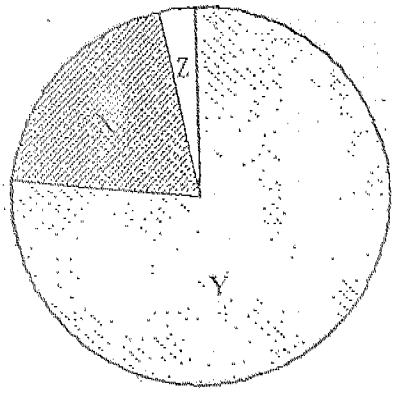
X : _____ Y : _____

c) Why is the water cycle important to life on earth? (1m)

36. You can help to conserve water by practising the 3 R's.
Study the following water-conserving activities.
Which R does each activity fall under? (3m)

	Activity	Spell out the correct R
a)	Purifying river water	
b)	Producing Newater	
c)	Taking a shower instead of a bath	
d)	Collecting rain water to wash car	
e)	Using water from washing rice to water plants	
f)	Using a mug to rinse mouth after brushing teeth	

37. The pie chart below shows the composition of air around us.



The description of the gases in the pie chart is given in the table below.
Match the letter representing each gas next to the correct description and give the name of the gases. (3m)

	Description	Letter in Pie Chart	Name of Gas
a)	It is needed for burning and respiration.		
b)	It is changed into a useful form for the plants by the bacteria in the soil.		
c)	It contains one type of gas which is useful for plants during the process of making food.		

For Questions 38 to 40 , please refer to Booklet K.

End of Paper

Set by : Ms Wong M C
Vetted by : P4 Science Committee Teachers

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SEMESTRAL ASSESSMENT 1, 2004
SCIENCE
PRIMARY 4

S87

1) 3
2) 1
3) 3
4) 3
5) 1
6) 3
7) 4
8) 1
9) 2
10) 1
11) 3
12) 2
13) 4
14) 1
15) 3
16) 2
17) 2
18) 4
19) 4
20) 1
21) 2
22) 2
23) 4
24) 3
25) 4

28) a) sides

b) even sides odd sides

29) a) A: fin B : gills cover C : scales

b) Its gills.

30) a) Pot C. It has sunlight and water to make food.

b) Pot B. It does not have sunlight to make food.

31) a) F

b) T

c) T

d) T

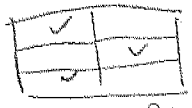
32) a) X is waterproof, allows heat to pass through easily and does not break easily.

b) Metal

33) a) The water level will drop/decrease.

b) 1000 ml of water

c) Air takes up space.

34) a) 

b) About 28 °C

35) a) ii) clouds

i) water vapour iii) rain

b) X : Evaporation Y : Condensation

c) It ensures a continuous supply of water for all living things to survive.

36) a) recycling b) recycling c) reducing
d) reusing e) reusing f) reducing

37) a) X oxygen

b) Y nitrogen

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