



SA2

AI TONG SCHOOL

2004 SEMESTRAL ASSESSMENT 2

PRIMARY FOUR

SCIENCE

DURATION : 1 hour 30 minutes

DATE: 1 November 2004

INSTRUCTIONS

Do not open the booklet until you are told to do so.

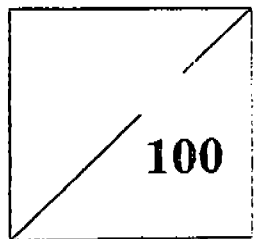
Follow all instructions.

Answer all questions.

Name : _____

Marks :

Class : Primary _____



Parent's Signature : _____

Date : _____

54

Section A: (30 x 2 marks)

Choose the correct answer and shade its number in the OAS provided

1. Which of the following cannot be classified as matter?

- | | |
|-----------|---------|
| A) Music | B) Dust |
| C) Shadow | D) Air |

- 1) A and C
- 2) B and D
- 3) A, C and D
- 4) All of the above

2. Which of the following statement(s) is/are false about water at room temperature?

- A) Water can be compressed.
- B) Water can be seen.
- C) Water has definite volume.
- D) Water has definite shape.

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

3. Droplets of water appear on the outside of a can of cold Coca- Cola when it is put on the table. This is caused by _____.

- 1) water leaking out from the can
- 2) water evaporating from the can
- 3) water vapour condensing on the can
- 4) water vapour changing into gas

4. The table below shows some observations of 4 rivers A, B, C and D.

River	Presence of Living Things	Colour	Smell
A	Few	No	No
B	Few	Yes	Yes
C	Plenty	Yes	No
D	Plenty	No	No

A group of students went hiking and wanted to collect some water to drink. Which one of the rivers has water that is safest to drink?

- 1) River A
- 2) River B
- 3) River C
- 4) River D

5. Which of these are parts of the respiratory system?

- A) Nose
- B) Mouth
- C) Windpipe
- D) Gullet

- 1) A only
- 2) A and C only
- 3) A, B and C only
- 4) All the above

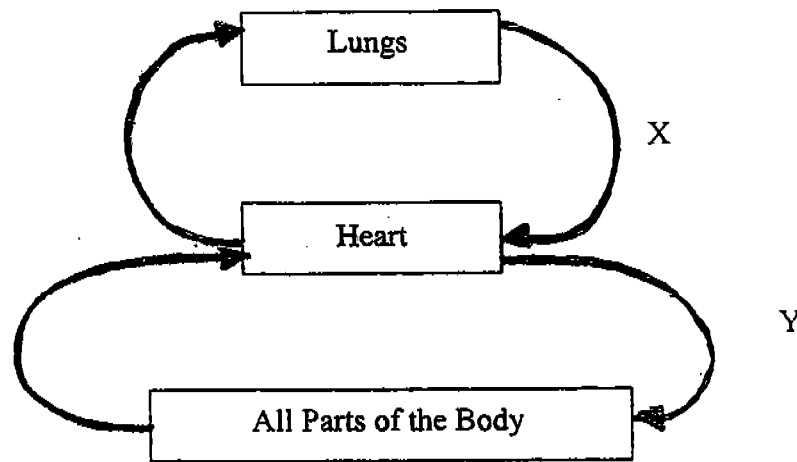
6. Air contains _____.

- 1) one type of gas only
- 2) two kinds of gases only
- 3) an equal amount of three gases only
- 4) a mixture of gases

7. Which one of the following statements is true?

- 1) Our heartbeat slows down when we get excited
- 2) Our heart relaxes and contracts when it pumps blood to other parts of the body.
- 3) Our heart is the largest organ.
- 4) Our heart pumps faster when we are asleep.

8.



Study the diagram above. What do the arrows X and Y indicate?

- 1) Blood carrying more nitrogen.
- 2) Blood carrying more oxygen.
- 3) Blood carrying more carbon dioxide.
- 4) Blood carrying undigested food and water.

9. The table below shows the average pulse rate of Peter at different ages.

	Average pulse rate (beats/min)
(A)	55
(B)	65
(C)	78
(D)	90

Which of the following shows the average pulse rate of the man when he was a baby?

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

10. The xylem tubes in the plants help to transport _____.

- 1) water and minerals salts from the roots to the leaves
- 2) water and minerals salts from the leaves to the roots
- 3) food from the roots and to the leaves
- 4) food from the leaves to all parts of the plant

11. When Keith was playing football with his friends, his _____.

- 1) heart pumps slower
- 2) heart rate decreases
- 3) body needs more carbon dioxide
- 4) breathing speeds up

12. A caterpillar eats a leaf. A bird eats the caterpillar. Where does the bird get its energy directly from?

- | | |
|-------------|--------------------|
| 1) The Leaf | 2) The air |
| 3) The sun | 4) The Caterpillar |

13. Which of the following are natural light sources?

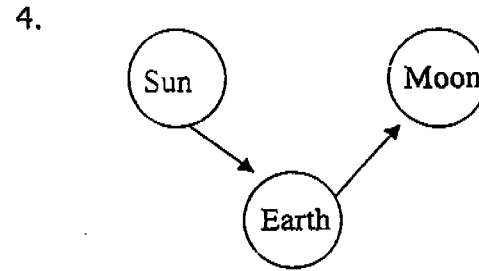
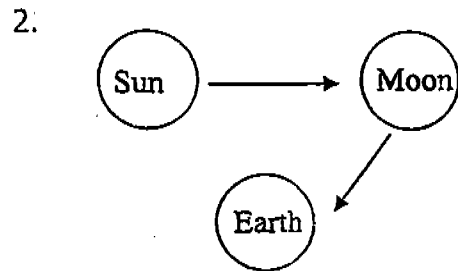
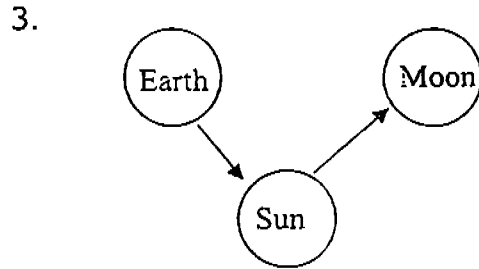
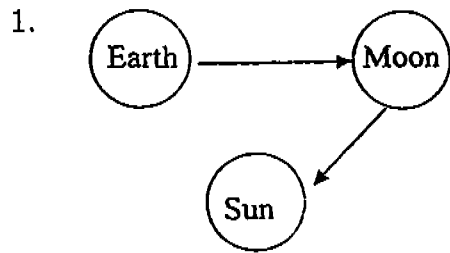
- A) ~~Lighting~~ Lightning
- B) The Moon
- C) Satellites
- D) Stars
- E) The Sun

- | | |
|--------------------|---------------------|
| 1) A, C and D only | 2) A, D and E only |
| 3) B, D and E only | 4) All of the above |

14. Which one of the following statements about energy is **not** correct?

- 1) Energy is used by animals ~~to make food.~~
- 2) Energy has mass and occupies space.
- 3) Energy keeps us warm.
- 4) Energy enables us to do work.

15. Which one of the following diagrams shows correctly how the Moon reflects light from the sun?



16. Which of the following object is wrongly classified?

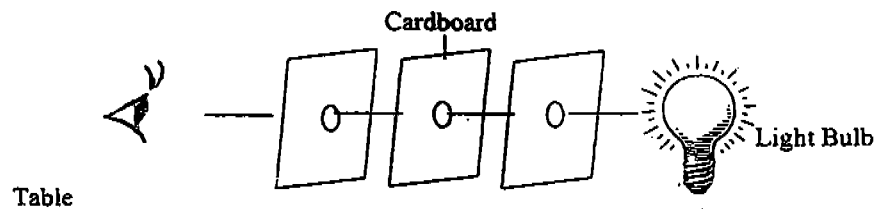
Allows most light to pass through	Allows some light to pass through	Do not allow light to pass through
Glass	Tracing Paper	Cardboard
Clear water	Metal can	Wood

- 1) Clear Water
- 2) Metal can
- 3) Tracing Paper
- 4) Wood

17. When an object does not allow light to pass through it, _____.

- 1) it would not reflect light
- 2) it would appear white
- 3) we are not able to see it
- 4) we are not able to see the things behind it

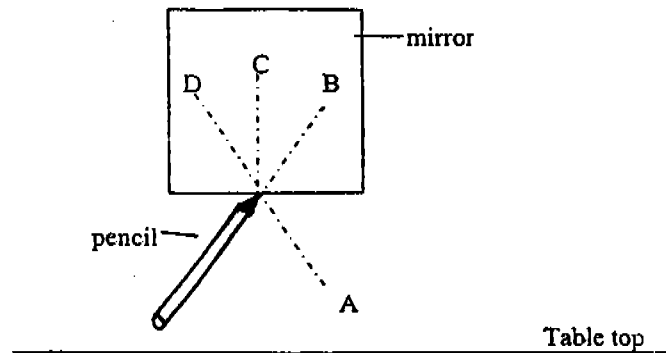
18.



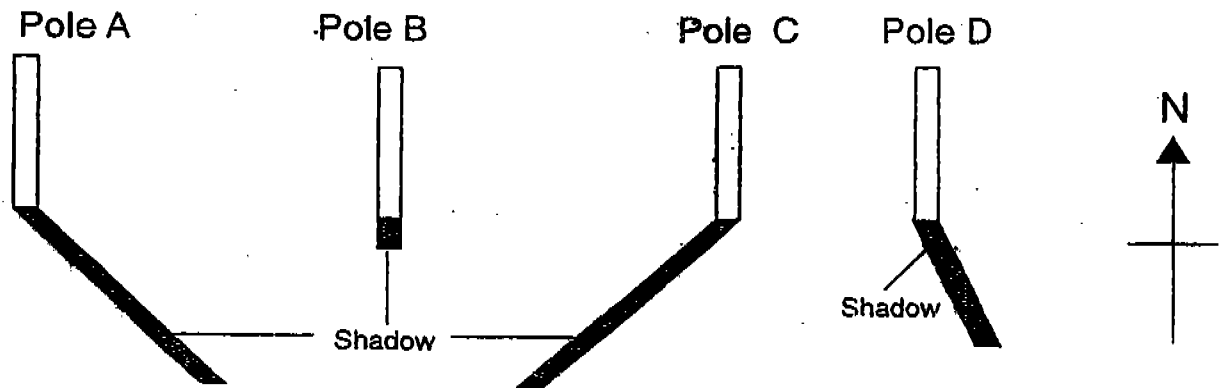
Li San is trying to show that light _____

- 1) is a form of energy
- 2) travels in straight lines
- 3) can be reflected
- 4) can pass through transparent objects

19. When you place a pencil at an angle of 45° at one point of a mirror, where will you find the image of the pencil?

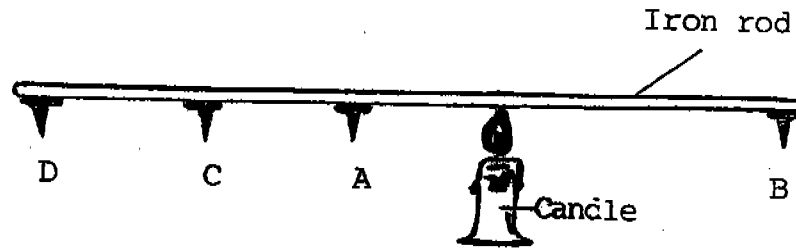


- 1) At point A
 - 2) At point B
 - 3) At point C
 - 4) At point D
20. The following figures show the shadow formed by a pole at different times of the day. Match the shadow to the correct time it was formed.

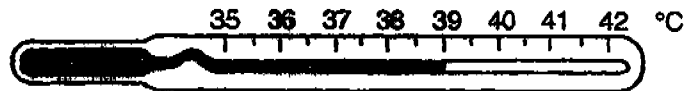


	8.00 am	12 noon	3.00 pm	6.00 pm
1)	A	B	D	C
2)	C	B	D	A
3)	D	B	A	C
4)	A	B	C	D

21. In the diagram below, four thumbtacks are attached to an iron rod with wax. Which two thumbtacks will drop off at about the same time?



- 1) A and B
 - 2) A and C
 - 3) B and C
 - 4) B and D
22. Mrs Tan took out a bottle of olives from the refrigerator. She could not open the bottle, so she poured some hot water over the metal cap of the bottle. This helped because the heat caused the _____
- 1) metal cap to expand
 - 2) bottle to contract
 - 3) bottle to crack
 - 4) air in the bottle to expand and loosen the cap
23. The instrument below is used to measure the temperature of _____.



- 1) ice
- 2) water
- 3) boiling water
- 4) human body

24. A dented table tennis ball becomes round again when it is placed in the hot water because the _____.

- 1) hot water expands
- 2) table tennis ^{ball} expand
- 3) air inside the table tennis ball expands
- 4) air outside the table tennis ball expands

25. The liquid that is contained in a thermometer is usually _____.

- A) Oil
- B) Coloured water
- C) Mercury
- D) alcohol

- | | |
|-----------|-----------|
| 1) A or B | 2) A or C |
| 3) B or D | 4) C or D |

26. Which sentence describes all the objects in the box below?

Mineral water, car windscreen and spectacle lens

- 1) They give out light.
- 2) They are in the solid state.
- 3) They allow light to pass through.
- 4) They can block light.

27. Which two things are made from materials that come from plants?

- 1) Paper and glass
- 2) Leather bag and paper
- 3) Book and tyre
- 4) Coin and cotton shirt

28. Study the two groups of objects shown below.

Group A	Tyre, eraser, balloon
Group B	Nail, staple, safety pin

Which of the following objects would you put in Group B?

- A) Gold Bracelet
- B) Rubber Hose
- C) Paper Clip
- D) Key

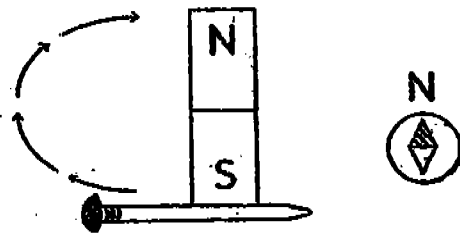
- 1) A and B only
- 2) B and C only
- 3) A, B, and C only
- 4) A, C and D only

29. Magnetic force can pass through _____

- A) Aluminium
- B) Iron
- C) Paper
- D) plastic

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

30. Susan made a magnet by stroking a nail as shown below.



A compass was brought to the tip of the nail. Which of the following figures shows the correct result?

- 1)
- 2)
- 3)
- 4)

NAME : _____

DATE : _____

CLASS : _____

WRITE		SHADE OVALS									
INDEX NUMBER		0	1	2	3	4	5	6	7	8	9
		0	1	2	3	4	5	6	7	8	9
		0	1	2	3	4	5	6	7	8	9
		0	1	2	3	4	5	6	7	8	9
		0	1	2	3	4	5	6	7	8	9
		A	B	C	D	E	F	G	H	I	J

SUBJECT: _____

EXAMPLE: IF YOU THINK THE 2ND OPTION IS THE CORRECT ANSWER SHADE THE OVAL 2 LIKE THIS :



1 1 2 3 4

2 1 2 3 4

3 1 2 3 4

4 1 2 3 4

5 1 2 3 4

6 1 2 3 4

7 1 2 3 4

8 1 2 3 4

9 1 2 3 4

10 1 2 3 4

11 1 2 3 4

12 1 2 3 4

13 1 2 3 4

14 1 2 3 4

15 1 2 3 4

16 1 2 3 4

17 1 2 3 4

18 1 2 3 4

21 1 2 3 4

22 1 2 3 4

23 1 2 3 4

24 1 2 3 4

25 1 2 3 4

26 1 2 3 4

27 1 2 3 4

28 1 2 3 4

29 1 2 3 4

30 1 2 3 4

31 1 2 3 4

32 1 2 3 4

33 1 2 3 4

34 1 2 3 4

35 1 2 3 4

36 1 2 3 4

37 1 2 3 4

38 1 2 3 4

41 1 2 3 4

42 1 2 3 4

43 1 2 3 4

44 1 2 3 4

45 1 2 3 4

46 1 2 3 4

47 1 2 3 4

48 1 2 3 4

49 1 2 3 4

50 1 2 3 4

51 1 2 3 4

52 1 2 3 4

53 1 2 3 4

54 1 2 3 4

55 1 2 3 4

56 1 2 3 4

57 1 2 3 4

58 1 2 3 4

59 1 2 3 4

SCORE: 58/60 (96.6)

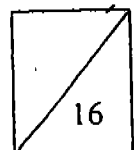
Name: _____ (2)

Class: _____

Section B: (10 x 2 marks)

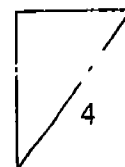
Write down the correct answers in the blanks.

31. The unit for measuring _____ is degrees Celsius.
32. _____ refers to the amount of space a thing occupies.
33. The exchange of gases in plants takes place through a tiny opening in the leaf called a _____.
34. Fish take in oxygen through the _____.
35. When we breathe in, our _____ contracts and becomes flatter.
36. Inside the lungs are tiny tubes that end in balloon like structures called _____.
37. We can feel clearly our _____ at our wrists and temples.
38. Materials that allow some light to pass through are called _____ materials.



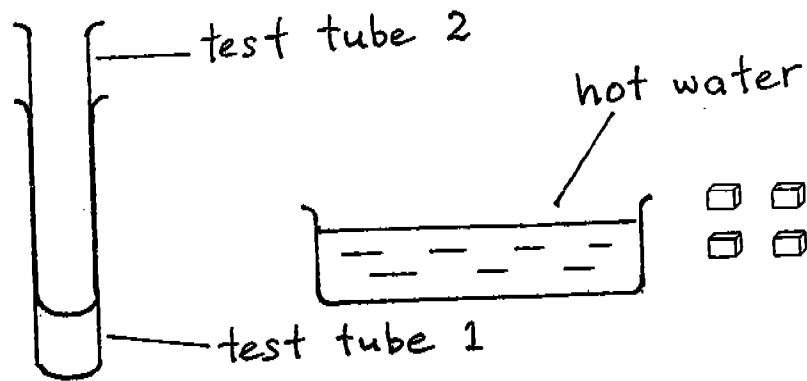
39. During photosynthesis, green plants trap the _____ energy from the Sun.

40. If a magnet is allowed to turn freely, it always comes to rest in the _____ direction.



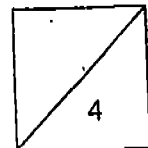
Section C: (5 x 4marks)

41. Amanda was conducting a science experiment and needed 2 test tubes urgently. However, she found that one of her mischievous classmates had stuck the 2 test tubes together very tightly as shown below. What she was given was only some ice cubes and a basin of hot water.

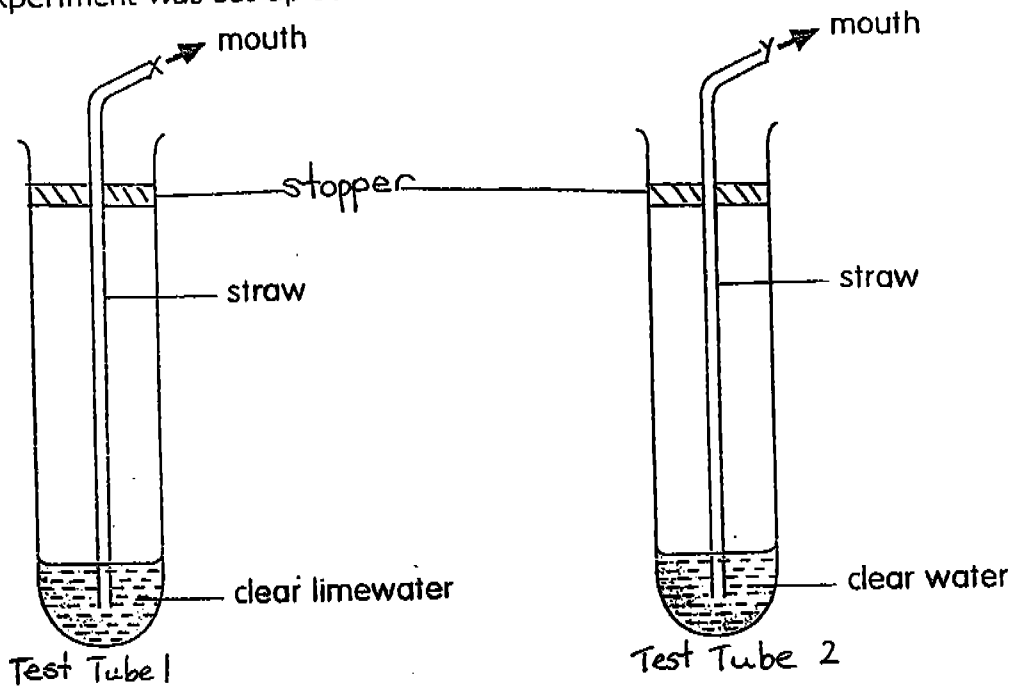


a) Using the materials provided, suggest a way to separate the test tubes without breaking the test tubes. (2m)

b) Explain the reason(s) for what you did in (a). (2m)



42. An experiment was set up as shown below.

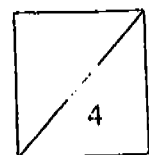


Wei Wen placed his mouth at Point X and blew into the straw for 2 minutes.

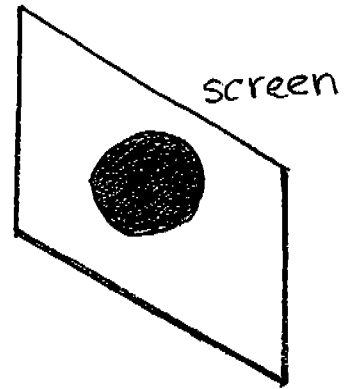
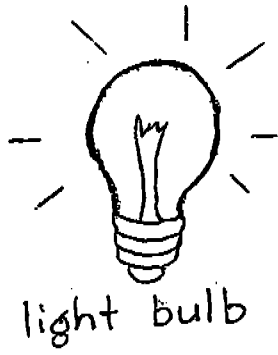
a) What will happen to the limewater in test tube 1? (1m)

b) He repeated the same thing in test tube 2. What will happen to the clear water? (1m)

c) What is the aim of Wei Wen's experiment? (2m)



43.



Suggest 2 ways how a bigger shadow of the ball can be formed on the screen.

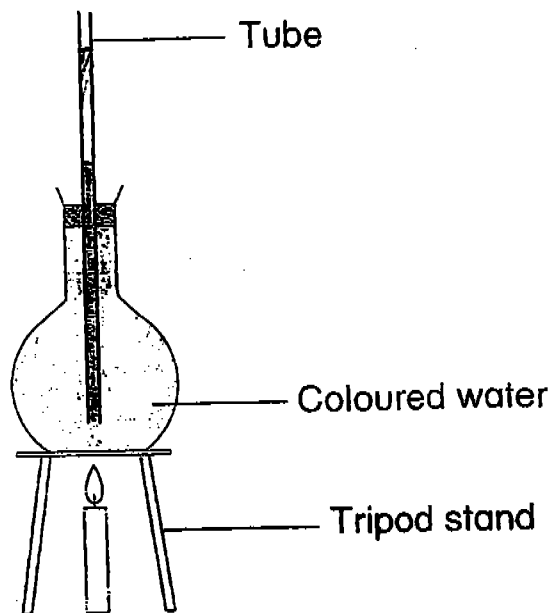
a)

_____ (2m)

b)

_____ (2m)

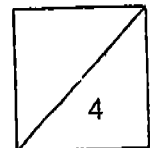
44. The apparatus was set up as shown below. The coloured water level in the tube was marked with permanent marker. The flask was heated for 2 minutes.



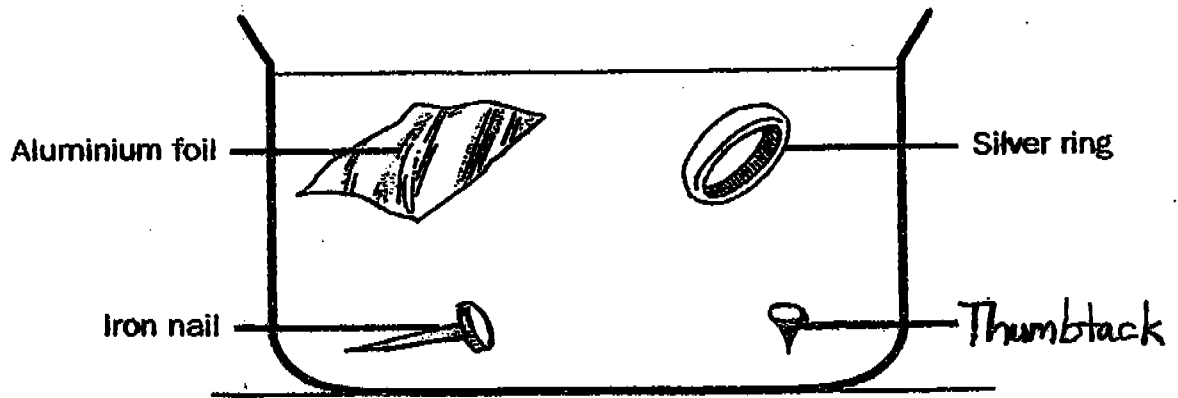
- a) What will happen to the water level? (1m)

- b) Mark the new water level in the tube. (1m)

- c) What causes the change? (2m)

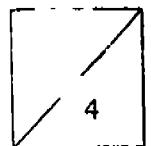


45.




a) Some objects were placed in a basin of water. Which two objects can you remove without putting your hand into the water? (2m)

b) How can you do so? (2m)



SAR

AI TONG SCHOOL
2004 SEMESTRAL ASSESSMENT 2
PRIMARY FOUR SCIENCE

- 1) 1
- 2) 3
- 3) 3
- 4) 4
- 5) 3
- 6) 4
- 7) 2
- 8) 2
- 9) 4
- 10) 1
- 11) 4
- 12) 4
- 13) 2
- 14) 2
- 15) 2
- 16) 2
- 17) 4
- 18) 2
- 19) 4
- 20) 2
- 21) 3
- 22) 1
- 23) 4
- 24) 3
- 25) 4
- 26) 3
- 27) 3
- 28) 4
- 29) 4
- 30) 4
- 31) temperature
- 32) Volume
- 33) stoma
- 34) gills
- 35) diaphragm
- 36) air-sacs
- 37) pulse
- 38) translucent
- 39) light
- 40) north-south
- 41) a) Put test tube 1 into the basin of hot water.
- b) The hot water will cause test tube 1 to gain heat and expand. As a result, Amanda can separate the test tubes without breaking them.
- 42) a) It will turn chalky.
- b) Nothing will happen to the clear water.
- c) To find out if carbon dioxide affects the clear limewater and the clear water.
- 43) a) Move the light bulb nearer to the ball.
- b) Move the ball nearer to the light bulb.
- 44) a) The water level in the tube will rise.
- b) 
- c) The heat from the burning candle causes the coloured water to gain heat and thus, expand.