



## AI TONG SCHOOL

2007 CONTINUAL ASSESSMENT (2)

PRIMARY FOUR SCIENCE

**DURATION : 1hr 45 min**

**DATE: 30<sup>th</sup> August 2007**

### INSTRUCTIONS

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

**Follow all instructions.**

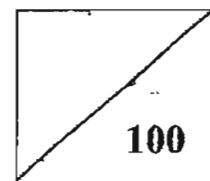
**Answer all questions.**

**Name : \_\_\_\_\_ ( )**

**Class : Primary \_\_\_\_\_**

**Parent's Signature : \_\_\_\_\_**

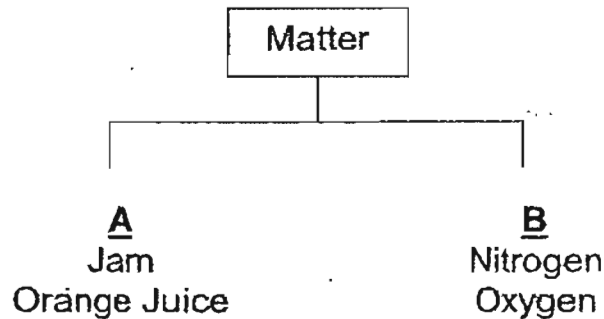
**Date : \_\_\_\_\_**



**Section A (30 X 2 marks)**

For each question 1 to 30, 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.

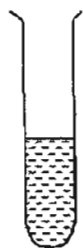
1. Mary classified 4 objects into two groups using the chart below.



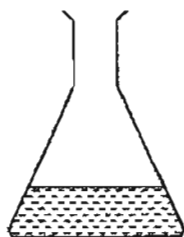
Which of the following could be the most suitable headings for Group A and B?

	A	B
(1)	Has no definite shape	Has a definite shape
(2)	Can be compressed	Cannot be compressed
(3)	Has a definite volume	Has no definite volume
(4)	Has no definite volume	Has a definite volume

2. A boy pours the water from the test tube into the conical flask and then into the round-bottomed flask.



Test  
tube



Conical  
flask



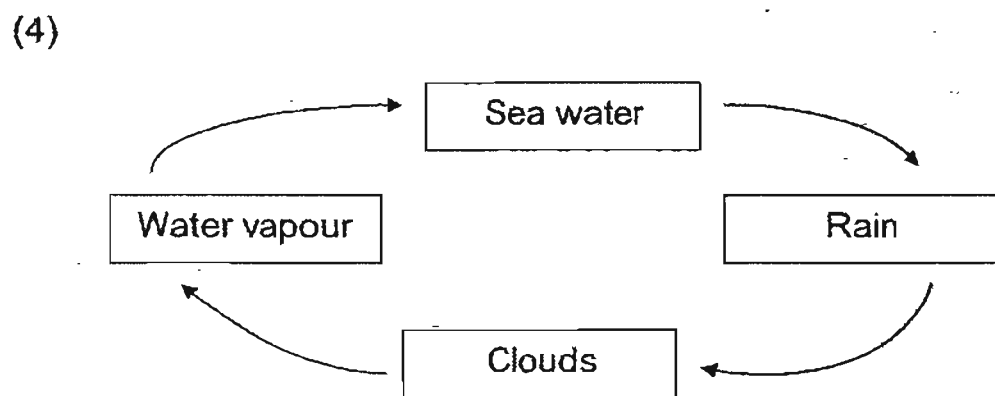
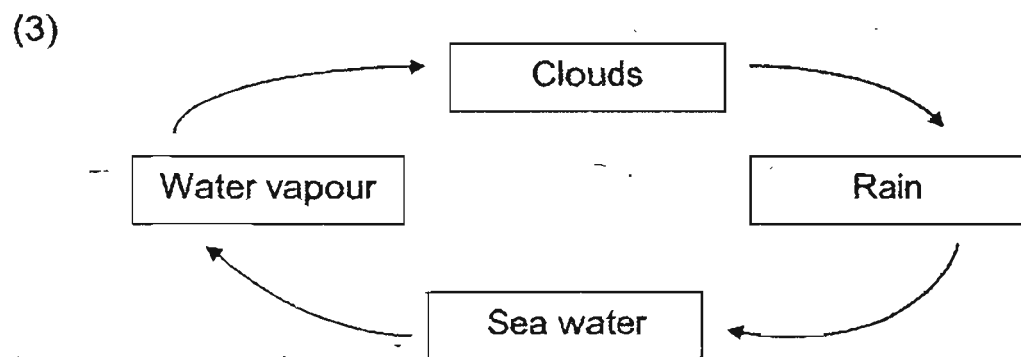
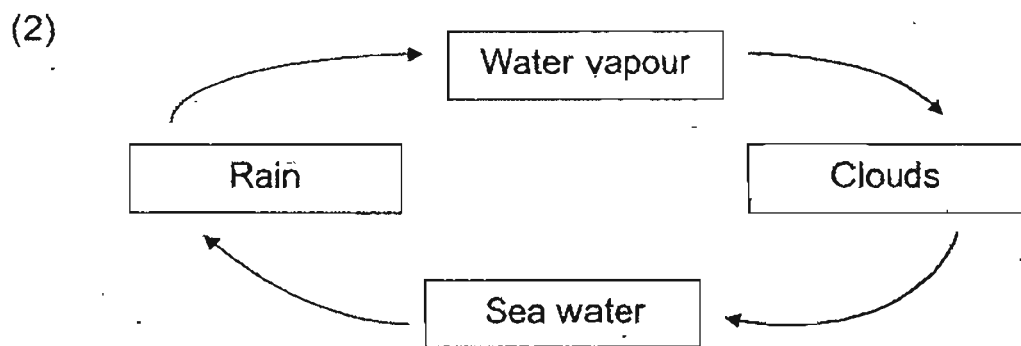
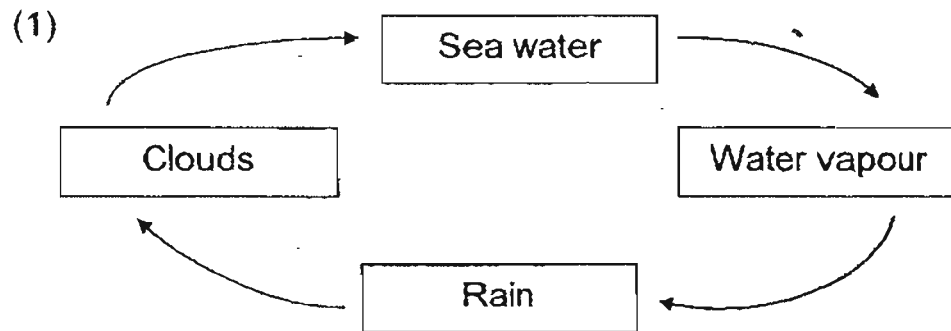
Round  
bottomed  
flask

What does he want to show in his activity?

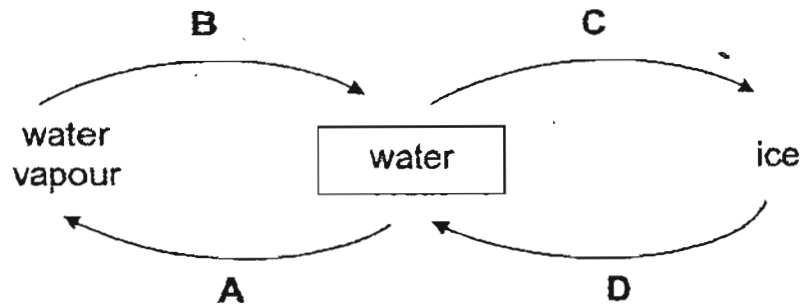
- A: Water has mass.
- B: Water has no definite shape.
- C: Water has no definite volume.
- D: Water takes the shape of its container.

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

3. Which one of the following shows the correct sequence of the water cycle?



4. The diagram shows the states of water and some processes.



Which one of the following set of arrows shows the correct processes represented by the arrows?

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
(1)	Condensation	Evaporation	Melting	Freezing
(2)	Evaporation	Condensation	Freezing	Melting
(3)	Melting	Boiling	Evaporation	Freezing
(4)	Boiling	Evaporation	Freezing	Melting

5. Which one of the following takes place when water gains heat?

- (1) Water freezes.
- (2) Water boils.
- (3) Water vapour condenses.
- (4) Water droplets gather to become clouds.

6. Joe wanted to find out if the rate of evaporation of water would be affected by the humidity of the surrounding. He had 4 different set-ups for this experiment. Which 2 set-ups should he choose?

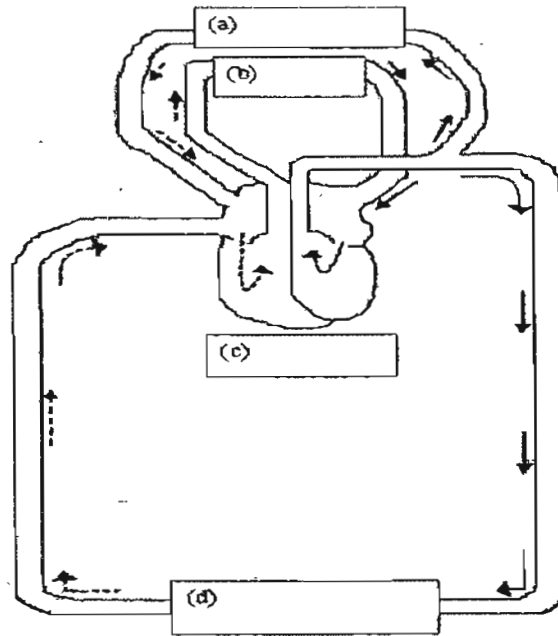
Set-up	Amount of water (ml)	Temperature (°C)	Humidity (%)
A	100 ml	29	70 %
B	200 ml	29	70 %
C	100 ml	29	50 %
D	200 ml	29	50 %

- (1) Set-ups A and C  
(2) Set-ups B and C  
(3) Set-ups C and D  
(4) Set-ups A and D
7. 4 children were discussing their "Water Cycle" project. Each wrote a statement about it. Whose statement should not be included in their report?

**Joy** : In order for evaporation to take place, rain water needs to gain heat.  
**Ali** : Condensation will take place only when the temperature of the surrounding is 25°C.  
**Muthu** : Rivers, lakes and reservoirs are examples of water bodies.  
**Weiming** : The water cycle will never stop.

- (1) Joy  
(2) Ali  
(3) Muthu  
(4) Weiming

8. The diagram below shows the circulatory system of a human body. Choose the correct label from the table below.

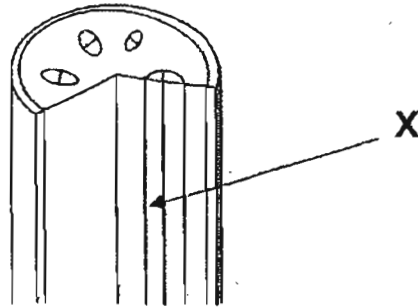


	(a)	(b)	(c)	(d)
(1)	upper body	heart	lower body	lungs
(2)	upper body	lungs	heart	lower body
(3)	upper body	lower body	lungs	heart
(4)	upper body	heart	lungs	lower body

9. During a water rationing exercise, the \_\_\_\_\_.

- (1) cost of water is more expensive
- (2) water supply is temporarily cut off
- (3) tap water is unsafe for drinking
- (4) water level in reservoirs decreases

10. The picture below shows a cross section of a celery stalk. Which one of the following statements below describes best part mark 'X'?



**cross section of a celery stalk**

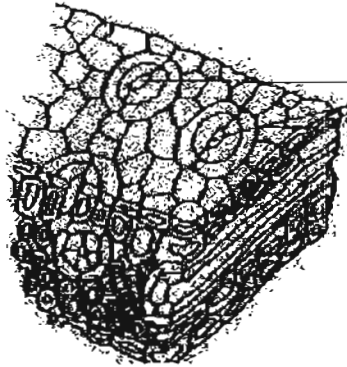
- (1) X is the xylem tube of the plant that transports water and mineral salts.
  - (2) X is the phloem tube of the plant that transports water and mineral salts.
  - (3) X is the xylem tube of the plant that transports food made in the leaves.
  - (4) X is the phloem tube of the plant that transports food made in the leaves.
11. What is the process of removing dissolved salt from seawater to obtain fresh drinking water?
- (1) purification
  - (2) pollution
  - (3) desalination
  - (4) condensation



12. The gills of the fish have many blood vessels to \_\_\_\_\_.

- (1) take in food
- (2) absorb dissolved carbon dioxide
- (3) absorb dissolved oxygen
- (4) enable them it to swim

13. The picture below shows what a girl saw under a microscope.



Which one of the following statements is true about what she saw in the picture?

- (1) They can be found on the stems of the plants.
- (2) They can absorb gases and water.
- (3) They can give off water.
- (4) They can make food.

14. Which one of the following living things gets energy indirectly from the sun?

- (1) corn plant
- (2) rambutan tree
- (3) monkey
- (4) grass

15. Which one of the following gases is wrongly matched with its description?

	Gas	Description
(1)	Carbon Dioxide	Plant takes in this gas during photosynthesis.
(2)	Oxygen	Living things take in this gas during respiration.
(3)	Water Vapour	It is present in the air.
(4)	Nitrogen	Plants take in this gas directly from the air.

16. Which one of the following is not transported by the blood?

- (1) carbon dioxide
- (2) oxygen
- (3) waste material
- (4) water vapour

17. Which of the following statements about heat are wrong?

- A : Heat helps living things to keep warm.
- B : Heat enables man and animals to see.
- C : Heat is needed to dry clothes
- D : Heat is a kind of matter.

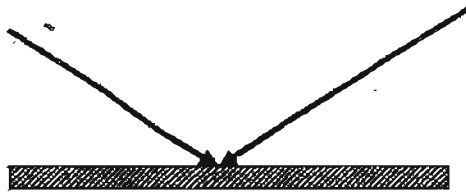
- (1) A and B
- (2) A and D
- (3) B and C
- (4) B and D

18. Which one of the following gives off natural light on its own?

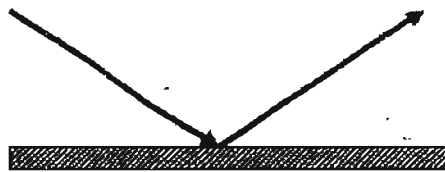
- (1) lighted bulb
- (2) moon
- (3) earth
- (4) star

19. Which one of the diagrams below shows how light is reflected?

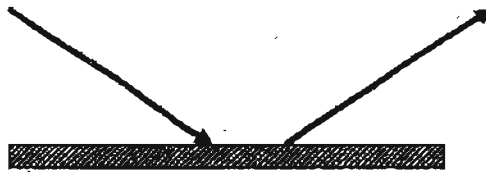
(1)



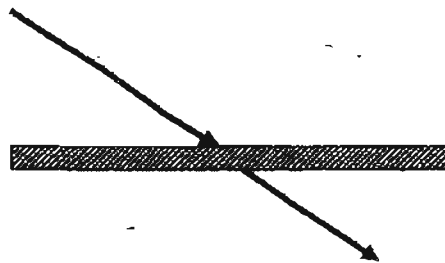
(2)



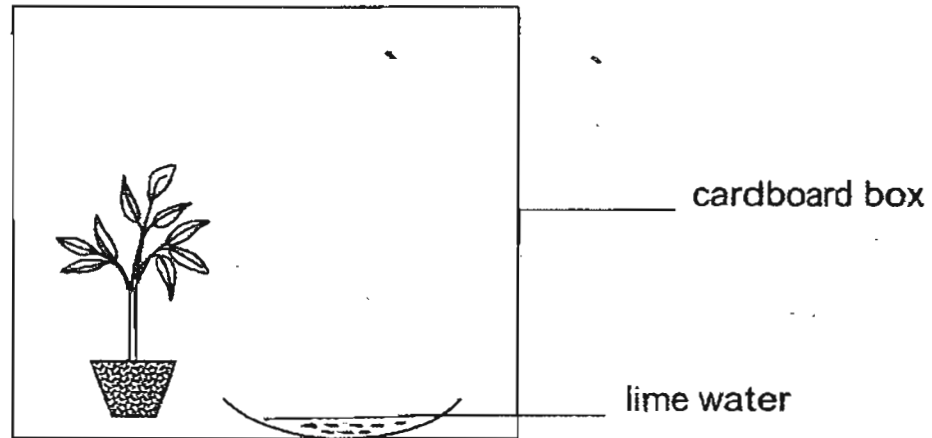
(3)



(4)



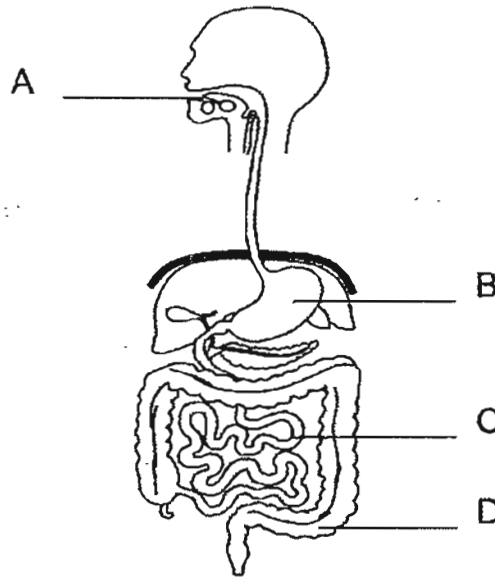
20. A plant is placed in a cardboard box as shown below.



The limewater will turn cloudy because the plant will \_\_\_\_\_.

- (1) respire
  - (2) photosynthesize
  - (3) give out water
  - (4) use up energy
21. Bob's father eats a lot of vegetables. He works out in a gymnasium. He carries weights too. He is trying to build his \_\_\_\_\_.
- (1) muscles
  - (2) fats
  - (3) bones
  - (4) joints
22. The skull protects the \_\_\_\_\_ and the ribcage protects the \_\_\_\_\_.
- (1) brain, lungs
  - (2) eyes, intestine
  - (3) head, stomach
  - (4) nose, blood vessel

23. The diagram below shows a digestive system. In which part of the diagram will the digested food be passed into the blood vessel?



- (1) A  
(2) B  
(3) C  
(4) D
24. Julie wanted to find out whether a red apple or green apple was sweeter. Which one of the following senses does she need to use?
- A : touch  
B : hearing  
C : sight  
D : taste
- (1) A and C  
(2) C and D  
(3) A, C and D  
(4) B, C and D

25. Which of the following statements about the muscular system is **false**?

- (1) We can control all our muscles.
- (2) The skeleton is covered with muscles.
- (3) Muscles work in pairs.
- (4) When one muscle contracts, the other relaxes.

26. During photosynthesis, plants take in \_\_\_\_\_ and give out \_\_\_\_\_.

- (1) oxygen, carbon dioxide
- (2) oxygen, oxygen
- (3) carbon dioxide, oxygen
- (4) carbon dioxide, carbon dioxide

27. The stem of a plant \_\_\_\_\_.

- (1) absorbs light for photosynthesis.
- (2) transports water and food to other parts
- (3) holds firmly to the ground
- (4) gives out water

28. Digestion starts in our \_\_\_\_\_.

- (1) gullet
- (2) stomach
- (3) mouth
- (4) small intestine

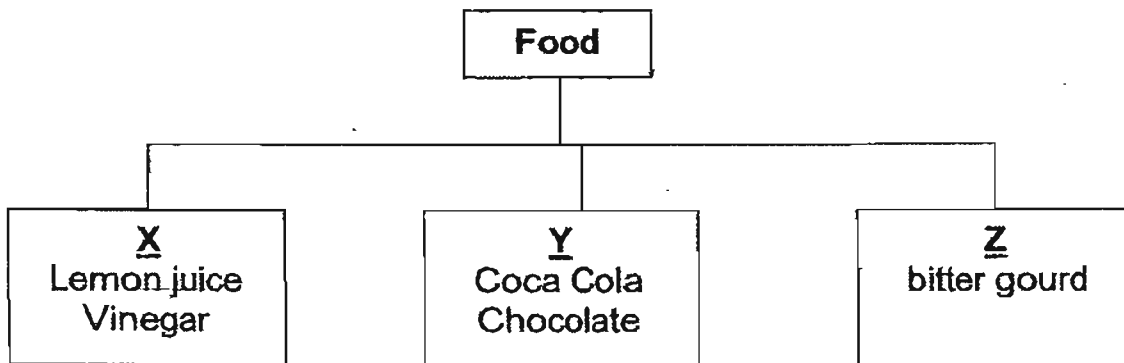
29. Ahmad received a game card that states the following.

- It takes in oxygen into the body
- It removes carbon dioxide from the body.

Which one of the following systems carries out the processes described above?

- (1) Circulatory system
- (2) Muscular system
- (3) Skeletal system
- (4) Respiratory system

30. Meiling drew the following classification chart.

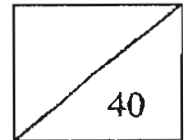


Which one of the following is best for the headings?

	<b>X</b>	<b>Y</b>	<b>Z</b>
(1)	Sweet	Sour	Salty
(2)	Sour	Sweet	Bitter
(3)	Bitter	Sour	Sweet
(4)	Salty	Bitter	Sour

Primary 4 Science CA2 (2007)

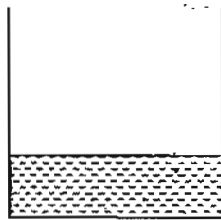
Name : \_\_\_\_\_ ( )



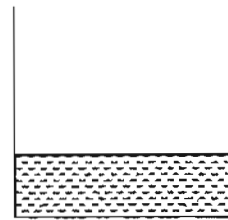
Section B (40 marks)

Answer all the questions in the spaces provided.

31. Joseph poured the same amount of water in two beakers as shown below.



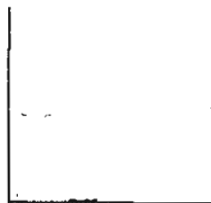
Beaker C



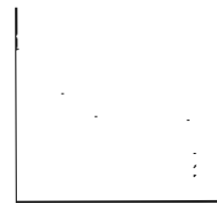
Beaker D

He had 2 iron balls of different sizes. He dropped the small ball into Beaker C and the big ball into Beaker D.

(a) Draw results of the experiment. [2]



Beaker C

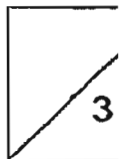


Beaker D

(b) What can you conclude from this experiment? [1]

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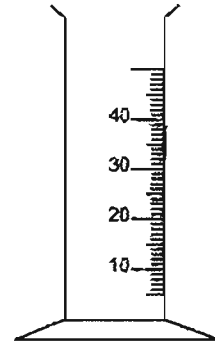
32. Gina was instructed to find the volume of a stone. She was given the objects as shown below.



jar of water



stone



measuring cylinder

Write out the steps she should take. [2]

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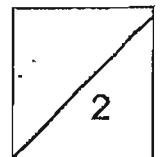
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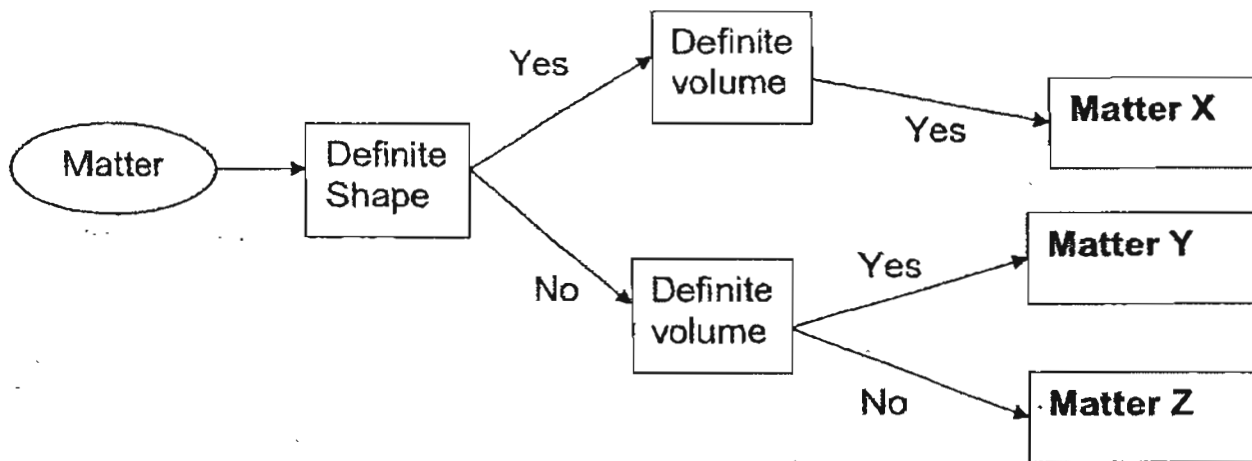
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33. Study the flow chart on matter.

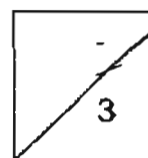


What is the state of each matter? [3]

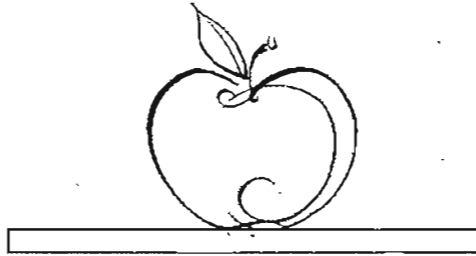
Matter X - \_\_\_\_\_

Matter Y - \_\_\_\_\_

Matter Z - \_\_\_\_\_



34. Mandy took an apple out of the refrigerator and placed it on a table.



- (a) What would she see on the apple after a few minutes?  
[1]

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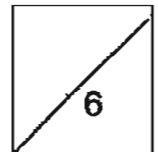
- (b) Explain what happened in (a) [2]

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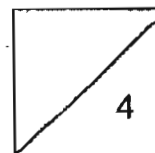
35. Mrs Tay is trying to teach her children to conserve water by practising the 3 Rs. Write "Reducing", "Reusing" or "Recycling" for each of the activities. [3]

	<b>Activities</b>	<b>3 Rs</b>
(a)	Using water that was used to wash vegetables to water plants.	
(b)	Using a mug when brushing your teeth.	
(c)	Purifying water so that it can be used again.	

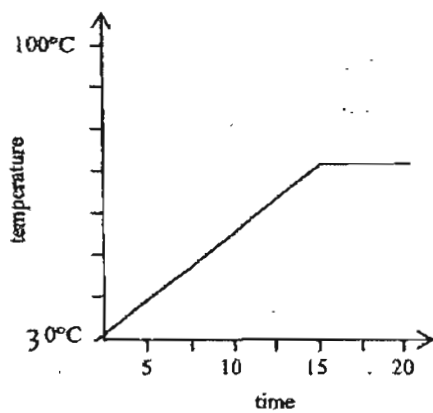


36. Fill up the table below to compare the process of respiration and photosynthesis of a plant. [4]

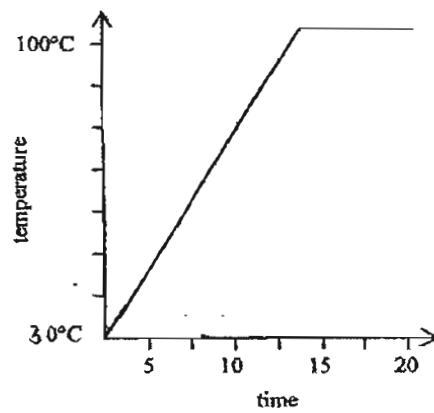
	<b>Respiration</b>	<b>Questions</b>	<b>Photosynthesis</b>
(a)		Does the process require light?	
(b)		When does the process take place?	
(c)		What is the gas produced during the process?	
(d)		What is the gas taken during the process?	



37. Judy was given 2 containers of colourless liquid. She boiled both liquids and plotted two graphs to show the changes in temperature.



Liquid X



Liquid Y

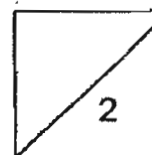
- (a) Which liquid is water? [1]

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

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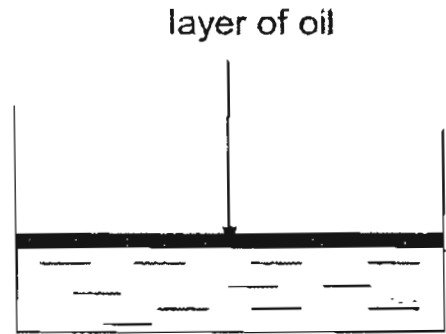
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38. Sally placed two basins of water under the hot sun.



Set Up C



Set Up D

(a) Which set up will have less water after 3 hours? [1]

\_\_\_\_\_

(b) Explain the reason for your answer in (a). [2]

\_\_\_\_\_  
\_\_\_\_\_

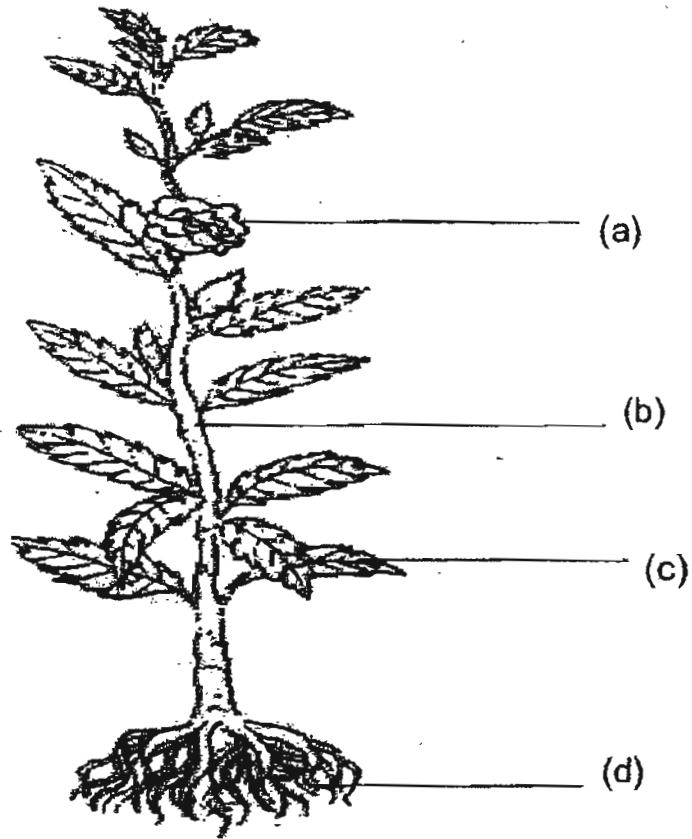
39. Classify the objects below into the correct groups [3]

frosted glass	mirror
tap water	story book
tracing paper	magnifying glass

i)	ii)	iii)
Allow some light to pass through	Allow all light to pass through	Allow no light to pass through

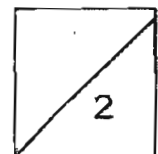
6

40. The picture shows a balsam plant.



Identify the parts and write the answers below. [2]

- (a) \_\_\_\_\_
- (b) \_\_\_\_\_
- (c) \_\_\_\_\_
- (d) \_\_\_\_\_



41. Samy ran around the track for 20 minutes.

(a) What would happen to his heartbeat after 20 minutes? [1]

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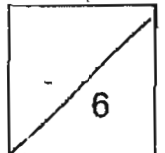
(b) Why is this so? [2]

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42. Look at the following statements. Write "True" or "False" in the lines provided. [3]

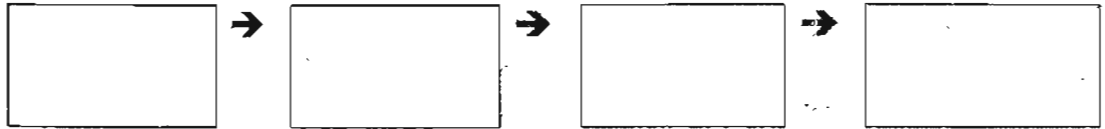
(a)	When we breathe in, our ribs move out and upwards.	
(b)	Blood which is rich in oxygen also carry waste materials.	
(c)	The heartbeat can also be detected on the neck.	



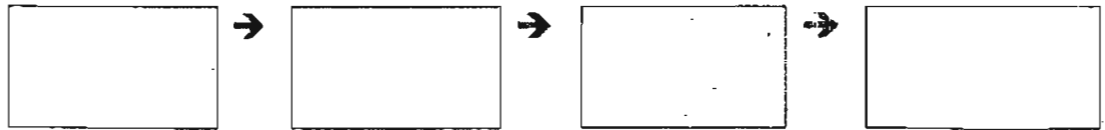


43. Rearrange the items below to show the correct order in which energy is transferred. [2]

(a) boy, sun, chicken, seeds



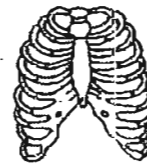
(b) goat, sun, python, grass



44. Study the diagram below and fill in the answers.



skull



ribcage

(a) What is the similarity of the 2 bones above? [1]

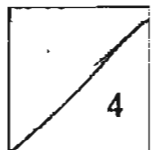
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(b) Why is skeleton system important in a human body? [1]

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45. Tim and his friends are having a picnic at the beach.

Tim : The satay is very delicious.

Lina : Oh dear! I think something is burning.

Paul : The coffee is hot

Cindy : I can hear the ringing bell of the ice-cream man.

Write down the senses used by each of the children when they make the statements. [2]

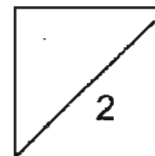
Tim - \_\_\_\_\_

Lina - \_\_\_\_\_

Paul - \_\_\_\_\_

Cindy - \_\_\_\_\_

~~~ End of Paper ~~~





# ANSWER SHEET

AI TONG PRIMARY SCHOOL - PRIMARY 4 SCIENCE 2007  
CONTINUAL ASSESSMENT (2)

- 1. 3
- 2. 3
- 3. 3
- 4. 2
- 5. 2
- 6. 1
- 7. 2
- 8. 2
- 9. 2
- 10. 1
- 11. 1
- 12. 3
- 13. 3
- 14. 3
- 15. 4
- 16. 4
- 17. 4
- 18. 4
- 19. 2
- 20. 1
- 21. 1
- 22. 1
- 23. 3
- 24. 2
- 25. 1
- 26. 3
- 27. 2
- 28. 3
- 29. 4
- 30. 2



- 31) a) Ball D occupy more space than ball C.
- 32) 1) Find the initial volume of the water  
2) Put in the stone.  
3) Record the new level of the water.  
4) Subtract the initial volume of the water from the new volume.
- 33) X: solid Y: liquid Z: gas
- 34) a) She would see water droplets.  
b) The water vapor in the air condenses on the cool apple to form water droplets.
- 35) a) Recycling.  
b) Reducing  
c) Reusing
- 36) a) No, Yes  
b) All the time, During the day  
c) Carbon dioxide, Oxygen  
d) Oxygen, Carbon dioxide

37) a) Liquid Y.  
b) When water is boiled, the temperature of the water will be 100°C and then it will evaporate in the air.

38) a) Set up G.  
b) Set up C will evaporate faster as there is no layer of oil covering it.

39) i) tracing paper tap water.  
ii) frosted glass magnifying glass.  
iii) mirror story book.

40) a) flower.      b) stem      c) leaves      d) roots

41) a) Samy heart beat will increase after 20 minutes.  
b) The heart needs to pump more blood as it need to supply more digested food, water and oxygen for other parts of the body to produce energy.

42) a) True      b) False      c) True

43) a) Sun → seeds → chicken → boy  
b) Sun → grass → goat → python

44) a) It protect the vital organs.  
b) The skeleton system helps to support our body.

45) Tim: taste  
Lina: smell  
Paul: touch  
Cindy: hearing