Anglo – Chinese School (Junior)
Continual Assessment 1 (2005)
Science
Primary 4

CA1

Name:_____ ( ) Class: P 4. _____

Date: 10th March 2005

BOOKLET A

Total Time (Booklet A and B): 1 hour

Do **not** open the booklet until you are told to do so.
Follow **all** instructions carefully.
Answer **all** questions.

Anglo – Chinese School (Junior)
Continual Assessment 1 (2005)
Science
Primary 4

Name: ____ _____ _____ ( ) Class: P 4. _____

Date: 10th March 2005

BOOKLET B

Booklet A	**/ 30**
Booklet B	**/ 20**
Total	**/ 50**

Total Time (Booklet A and B): 1 hour

_____
Parent's Signature

_____
Date

Do **not** open the booklet until you are told to do so.
Follow **all** instructions carefully.
Answer **all** questions.

Section A (30 marks)

Choose the correct answer for each question and shade its number on the OAS provided.

1 Which of the following animals listed below share a similar lifecycle as Organism R?

Organism R

A: Butterfly
B: Cockroach
C: Grasshopper
D: Mealworm beetle

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

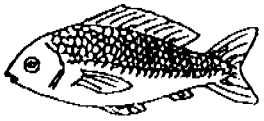
2 The table below shows how some things are grouped.

Non-living things		
Group A	**Group B**	**Group C**
Spring	Marble	Tyre
Paperclip	Test tube	Eraser
Razor blade	Window pane	Balloon

The objects above are grouped according to _____.

(1) their shape and size
(2) what they are used for
(3) what they are made of
(4) their colour and weight

3 A fish and a snake may be put in the same group because they _____.



(1) glide about
(2) have slimy bodies
(3) breathe in the same way
(4) have similar outer coverings

4 The diagrams show the different stages in the growth of a plant.

A B C D

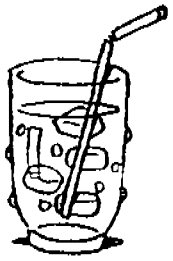
Which of the following shows the correct order of growth starting with the **adult**?

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

5 Calvin found an unknown substance in the park. He brought it back to the school laboratory and conducted an experiment to determine its physical characteristics. It was observed that the substance froze at 15°C and boiled at 254°C.
He concluded that the unknown substance will exist as a solid at _____.

(1) 10 °C
(2) 90 °C
(3) 230 °C
(4) 300 °C

6 Pauline placed a glass of ice water on the table. She came back 5 minutes later and saw water droplets on the outer surface of the glass as shown below.



Which of following best explains the presence of the water droplets?

(1) The ice melted and overflowed.
(2) The glass was made wet by someone else.
(3) The glass has a crack and water seeped through.
(4) The water vapour in the surrounding air had condensed.

7 Thaddeus accidentally dented a ping pong ball as shown below.

What conclusions can he draw from the above activity?

A: Air can be compressed
B: The ping pong ball can be compressed
C: The mass of the ping pong ball is now smaller
D: The volume of the ping pong ball is now smaller

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

8 Mike wants to find out how the exposed surface area will affect the rate of evaporation of a liquid. To conduct a fair test, which one of the following variables should be changed?

(1) Type of liquid used
(2) Volume of liquid used
(3) Type of container used
(4) Place where set-ups will be left

9 In which of the following situations would water be **gaining heat**?

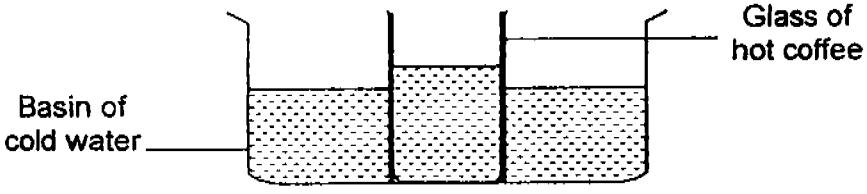
A: Water boiling
B: An ice cube melting
C: A bottle of cold milk being immersed in a basin of hot water

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

10 Eugene moulded a piece of plasticine into a cube. He then re-shaped it into a ball. The ball and cube models of the plasticine shared the same _____.

(1) mass only
(2) volume only
(3) mass and volume only
(4) shape and volume only

11 Patrick placed a glass of hot coffee in a basin of cold water.



Which of the following took place in the above set-up?

A: Evaporation
B: Condensation
C: Hot coffee gains heat from the surroundings
D: Cold water gains heat from the hot coffee and surroundings

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

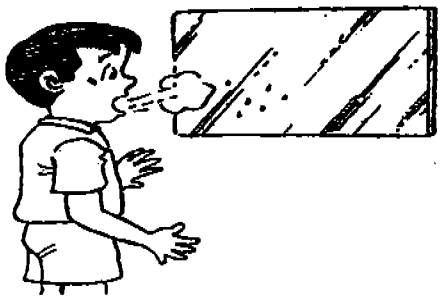
12 Joel filled 4 identical glasses with the same volume of water. He left them undisturbed for 1 day in 4 different places with different conditions as listed in the table below.

Glasses	W	X	Y	Z
Surrounding conditions	Sunny	Sunny	Cloudy	Cloudy
	No wind	Windy	No wind	Windy
	Low humidity	Low humidity	High humidity	High humidity

Which one of the glasses will have the largest volume of water left after 1 day?

(1) W
(2) X
(3) Y
(4) Z

13 When Johnny breathed onto a mirror, he noticed that it became misty and after a short while, the mist disappeared.

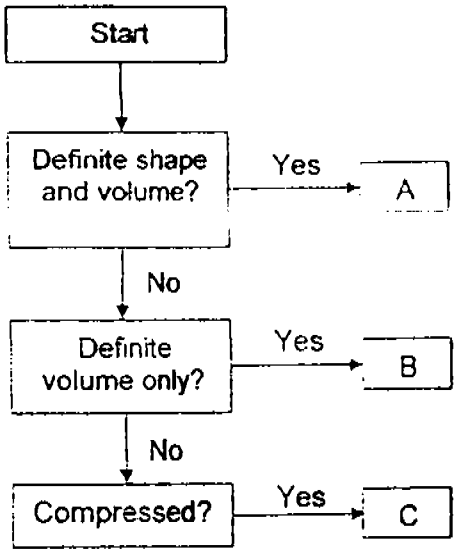


What can Johnny conclude based on the activity?

A: Boiling occurred.
B: Melting occurred.
C: Evaporation occurred.
D: Condensation occurred.

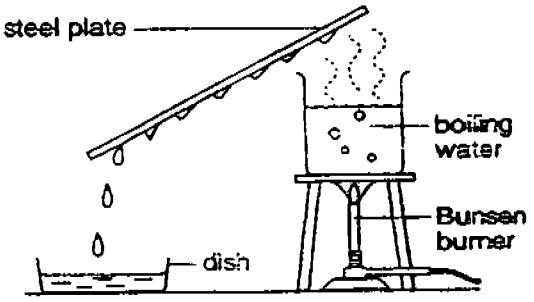
(1) A and B only
(2) A and D only
(3) B and C only
(4) C and D only

14 Study the flow chart and identify substances A, B and C.



	A	B	C
(1)	Paper clip	Shadow	Petrol
(2)	Mango juice	Papaya	Water vapour
(3)	Pencil	Milk	Oxygen
(4)	Steam	Cooking oil	Light

15 Mr Teo set up the experiment below.



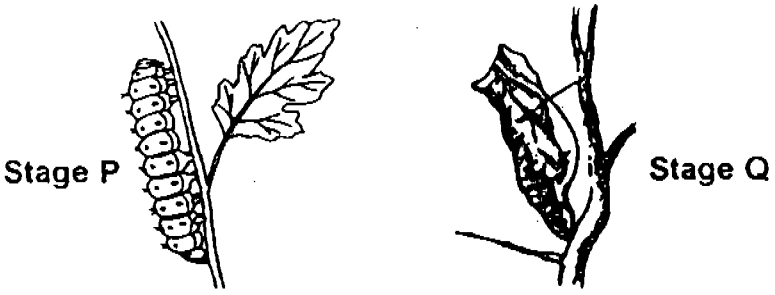
Name the processes that took place in the boiling water and on the steel plate which resulted in water droplets being collected in the dish.

	Boiling Water	Steel Plate
(1)	Evaporation	Evaporation
(2)	Condensation	Condensation
(3)	Evaporation	Condensation
(4)	Condensation	Evaporation

Section B (20 marks)

Write your answers in the space provided.

16 The diagram shows 2 stages of a lifecycle of an organism.



(a) State one difference between Stage P and Q in the way it behaves. [1]

_____

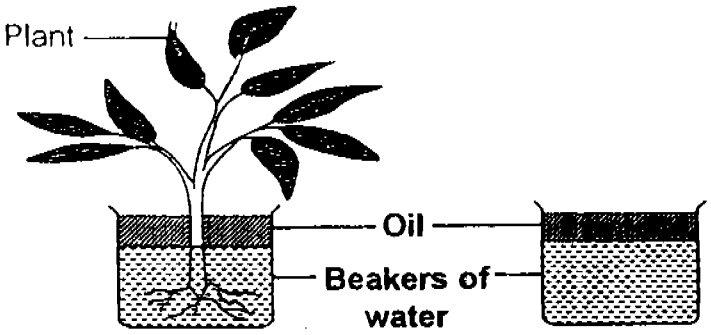
_____

(b) At which stage is the organism a pest to farmers? Explain your answer. [1]

_____

_____

17 Mandy set up the following experiment.



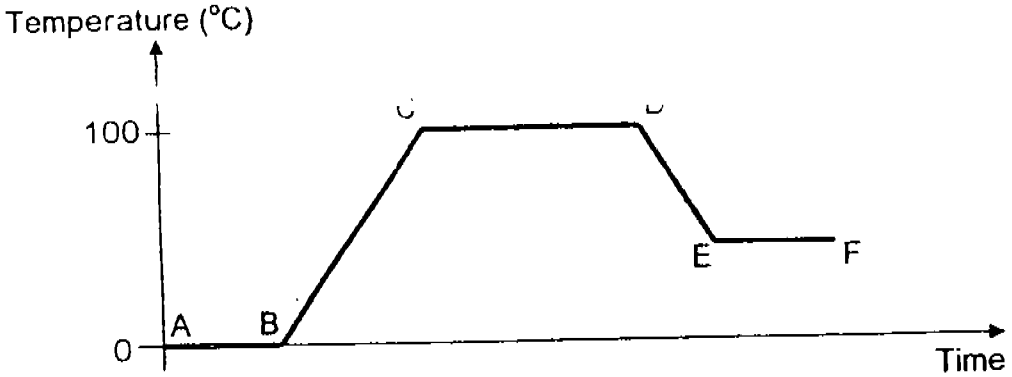
Set-up A Set-up B

(a) Which set-up (A or B) will have a lower water level after a week? [1]

(b) Why did Mandy put a layer of oil in both set-ups? [1]

(c) What is the aim of Mandy's experiment? [1]

18 A beaker of ice is heated for some time. The temperature of the ice is recorded and plotted on the graph below.



Graph of Temperature of Ice against Time

(a) When ice melts, the change of state represented by Section AB is from _____ state to _____ state. [1]

(b) Section _____ shows that water was boiling. [1]

(c) Explain why the graph dips at Section DE. [1]

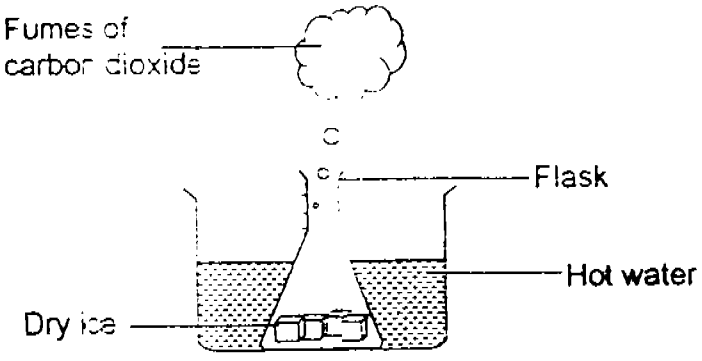
_____

_____

//

Marks: ☐

19 Sam was able to get fumes of carbon dioxide from dry ice using the method shown below.



(a) What change of state took place in dry ice. [1]

_____

(b) Would condensation be observed on the outer surface of the flask that is above the hot water? Why? [1]

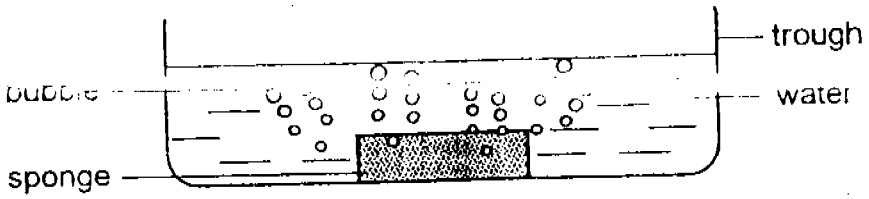
_____

_____

12

Marks: 1

20 Laura pushed a piece of sponge into the water as shown below. She saw bubbles coming out of the sponge.



(a) What do the bubbles contain? [1]

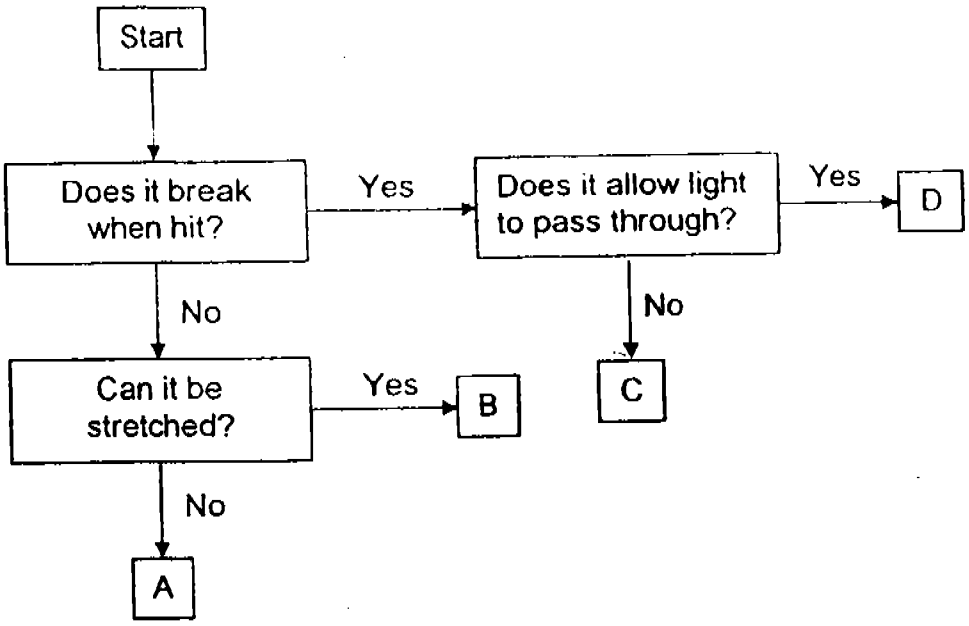
(b) Laura measured the mass of the sponge before and after it was pushed into the water. State whether the mass was ***smaller***, ***greater*** or ***remained the same*** **after being pushed in the water.** [1]

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

3

Marks:

21 Study the flowchart below and answer the questions that follow.



(a) Using the above information, state the characteristics of object C. [1]

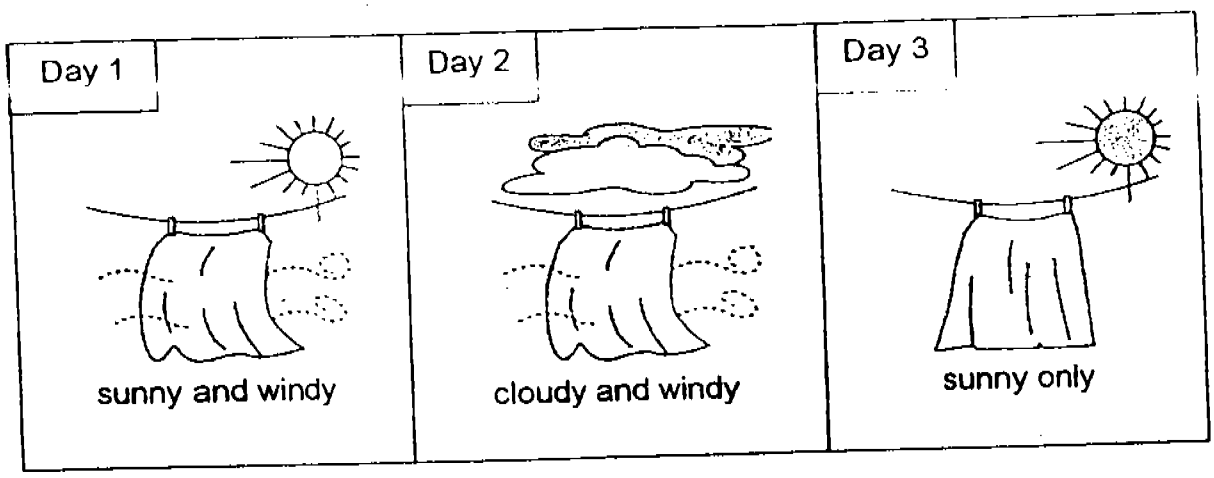
(b) Give an example of object B. [1]

~~A brick~~ A r

14

Marks:

22 Mrs Lee hung her towel out in her garden to dry on 3 different days. The pictures below show the weather conditions on the 3 days.



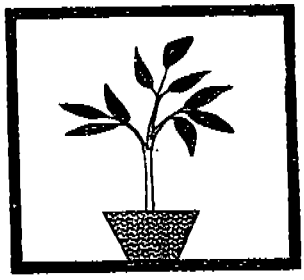
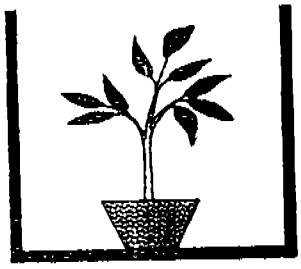
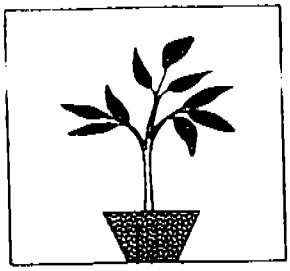
(a) Which **2 days** can be used to compare the **effect of wind** on the rate of evaporation? [1]

(b) How can she tell which conditions are best for drying her towel? [1]

15

Marks:

23 Aaron conducted the following experiment using 3 similar plants in the set-ups shown below.

		
Set-up A	**Set-up B**	**Set-up C**
Given some fertilizer	Given some fertilizer	Given some fertilizer
Given 150*ml* of water daily	No water given	Given 150*ml* of water daily
Kept in a sealed black box	Kept in an open box	Kept in a glass container

(a) In which set-up(A, B or C) would the plant probably **not** be alive after 1 week? [1]

_____

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

_____

_____

(c) In which set-up (A, B or C) would the plant probably be alive but have yellowed leaves? Why? [1]

_____

_____

16

ANGLO CHINESE SCHOOL (JUNIOR)
CONTINUAL ASSESSMENT (2005)
SCIENCE
PRIMARY 4

CA1

1) 2

2) 3

3) 4

4) 3

5) 1

6) 4

7) 2

8) 3

9) 1

10) 3

11) 3

12) 3

13) 4

14) 3

15) 3

16) a) The organism in Stage P moves while it does not move in Stage Q

b) Stage P. The organism in Stage P eats and destroys the leaves of the farmer's crops.

17) a) Set- up A

b) Mandy put a layer of oil in both set-ups so that the water will not evaporate.

c) The aim of Mandy's experiment is to find out if plants take in water.

18) a) solid liquid

b) CD

c) This is because the water cools down to room temperature after it boils.

19) a) From solid state to gaseous state.

b) Yes. The dry ice made it cooler.

20) a) They contain air.

b) The mass was greater.

c) When the sponge was pushed into the water, it absorbed some water. This causes the mass to be greater after being pushed into the water.

21) a) Object C breaks when hit and does not allow light to pass through.

b) A rubber band

22) a) Day 1 and 3

b) She can tell which conditions are best for drying her towel and also on which day was her towel the most dry.

23) Plant B

b) It did not have water.

c) Plant A. It did not have sunlight and could not photosynthesize