WA2

A	
B	
Total	

Singapore Chinese Girls' School
Primary 5 Science
Weighted Assessment 2
Topics: Water and Changes of States

Name: _____ ( ) Date: _____
Class: 5_____

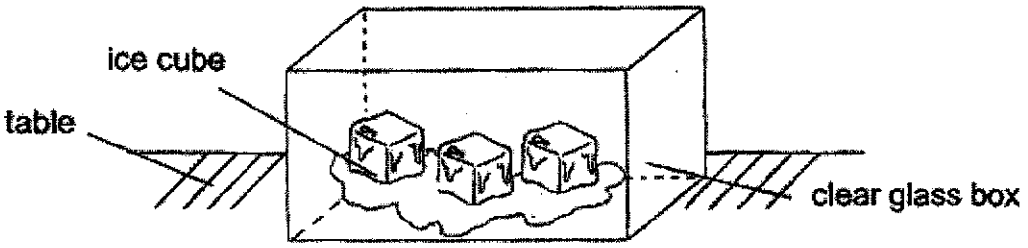
SECTION A [14 marks]
Choose the correct answer and write its number in the Answer Sheet on Page 5.

1.

A substance goes through the 4 changes of states, A, B, C and D. In which of the 4 processes is there heat gain?

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

2. Some ice cubes were placed in a clear glass box as shown in the diagram below. The ice cubes started to melt after a while.



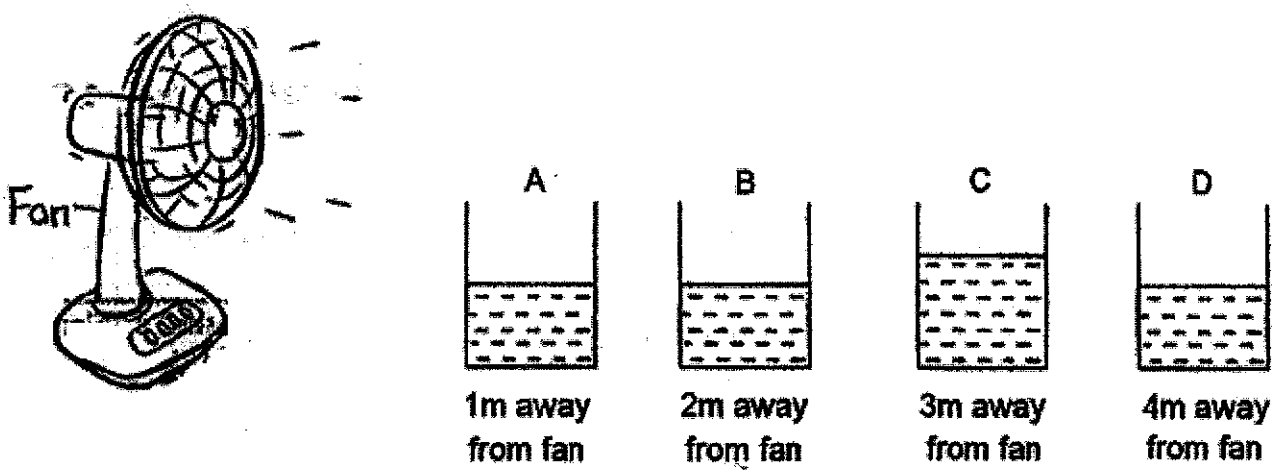
Based on the set-up above, which one of the following statements is correct?

(1) The table gained heat from the ice cubes.
(2) The ice cubes lost heat to the clear glass box.
(3) The ice cubes gained heat from the clear glass box.
(4) The clear glass box gained heat from the ice cubes.

3. In which of the following situations will condensation take place?

	Temperature of	
	Surface (°C)	Water Vapour (°C)
(1)	0	0
(2)	40	0
(3)	0	40
(4)	40	40

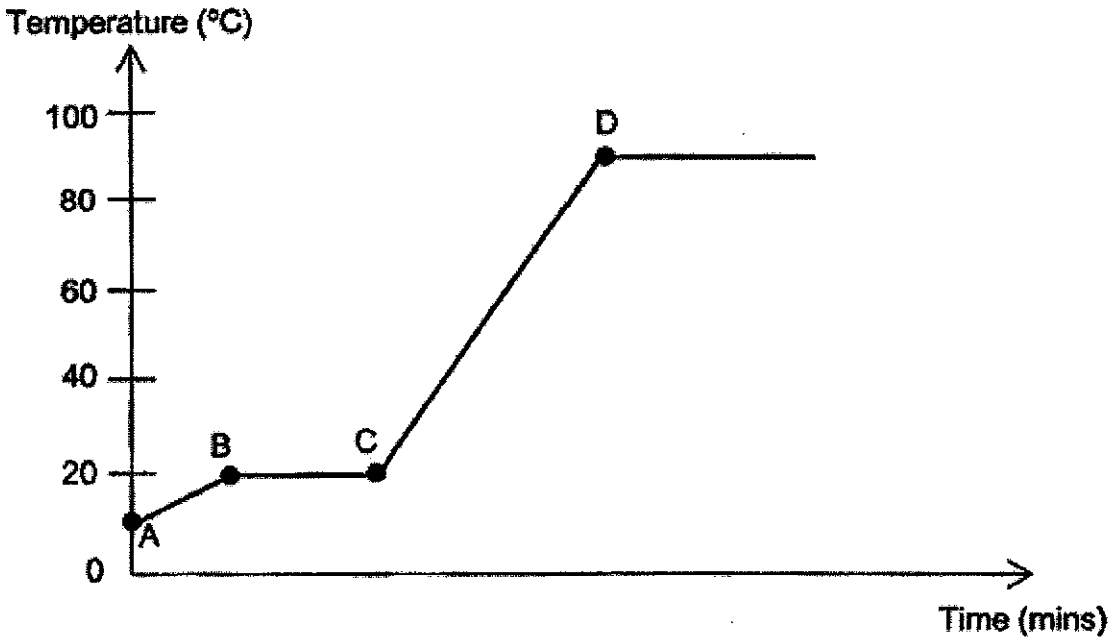
4. Study the diagram below.



Which container will have the least water left after 5 hours?

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

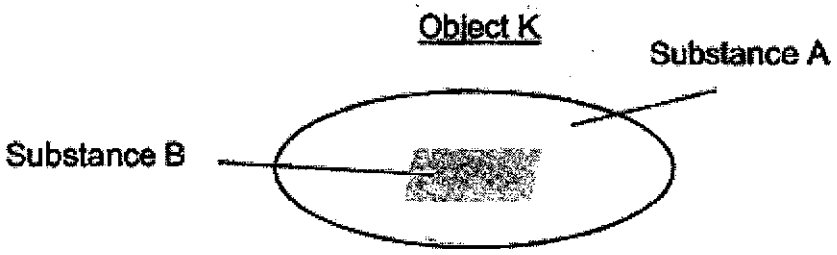
5. Some Substance X was in its solid state and was heated over a flame continuously. The changes in the temperature of Substance X was recorded in the graph below.



At which point did substance X start to boil ?

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

6.



Substance	Melting point
A	110 °C
B	60 °C

Object K is made of 2 solid substances A and B. To what temperature should Object K be heated up to allow A and B to be separated by making only one of them a liquid?

(1) 55 °C
(2) 70 °C
(3) 110 °C
(4) 115 °C

7. The table below shows the states of 4 substances E, F, G and H at different temperatures.

Substance	State of substances at		
	25 °C	50 °C	75 °C
E	solid	solid	solid
F	liquid	liquid	gas
G	solid	liquid	liquid
H	liquid	gas	gas

Based on the table above, which substance has the **lowest** boiling point?

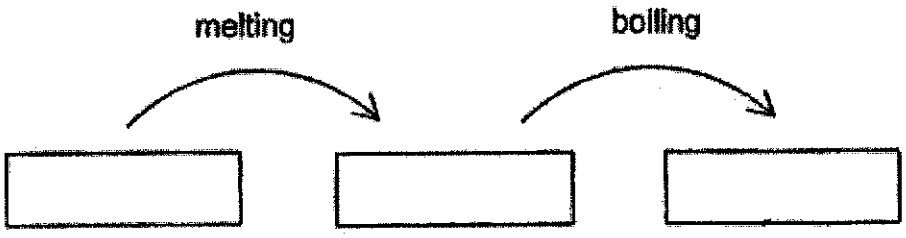
(1) E
(2) F
(3) G
(4) H

Answer Sheet for Section A [14 marks]

1. ( )
2. ( )
3. ( )
4. ( )
5. ( )
6. ( )
7. ( )

SECTION B [16 marks]

8. Fill in the boxes with the correct states of matter. (3m)



9. Olivia wants to conduct an experiment.
The table below shows 4 possible set-ups J, K, L and M that she can use.

	J	K	L	M
Volume of water (ml)	200	200	200	200
Exposed surface area of water (cm^2)	100	100	200	200
Temperature of room (°C)	28	20	28	28
Temperature of water (°C)	40	60	40	60

ai) Which 2 set-ups should she use to find out how the temperature of water affects the rate of evaporation? (1m)

Set-up _____ and set-up _____ .

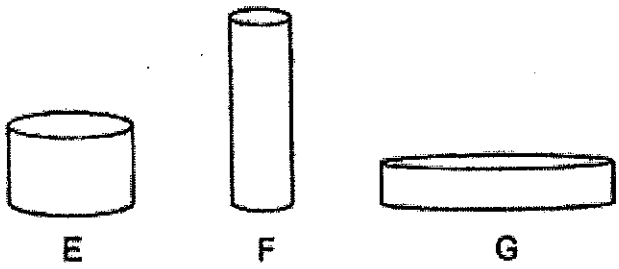
aii) Which 2 set-ups should she use to find out if the exposed surface area of water affects the rate of evaporation? (1m)

Set-up _____ and set-up _____ .

b) State one pair of 2 set-ups which cannot be compared in a fair test. (1m)

_____

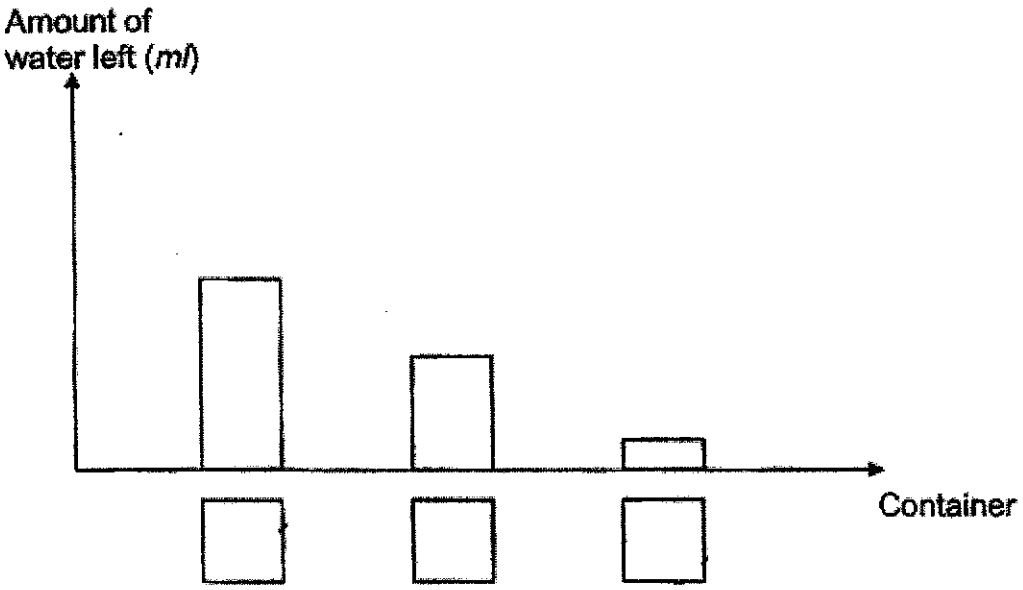
10. An equal amount of water was poured into containers E, F and G as shown below. They are then placed in an open field for 3 hours.



a) In the table below, tick (✓) the changed variable in this experiment. (1m)

Variable	
Exposed surface area of container	
Exposed surface area of water	
Temperature of water	
Amount of sunlight	

b) Fill in the boxes below to show the amount of water **left** in Containers E, F and G at the end of the experiment. (3m)



c) Based on the results of the above experiment, what can you conclude? (1m)

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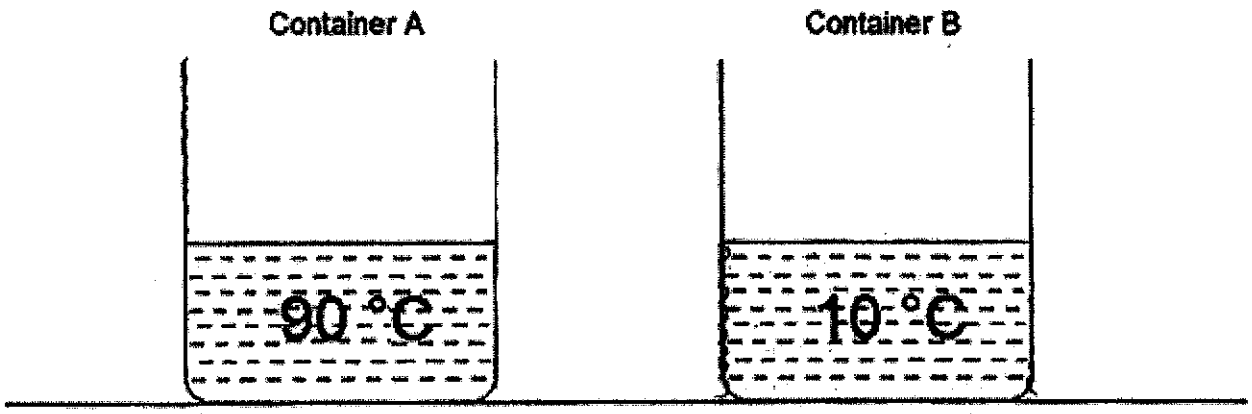
11. Both containers A and B are placed in the Science room. Hot water at 90 °C is poured into container A and cold water at 10 °C is poured into container B.



a) In the diagram above, <u>draw</u> the water droplets which appear 5 minutes later. (2m)

b) What can you add to the water in container B to make the water droplets appear faster? (1m)

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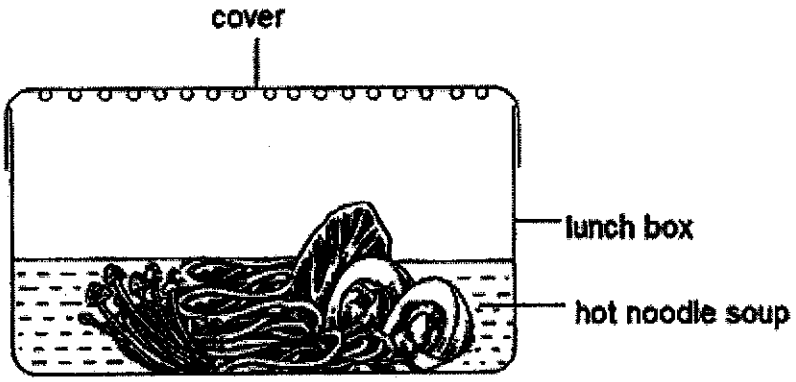
12. Tim bought hot noodle soup in a lunch box as shown in the diagram below. He found water droplets on the underside of the cover of the lunch box later.



Explain how water droplets are found on the underside of the lunchbox cover. (2m)

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End of paper

SCHOOL : SINGAPORE CHINESE GIRLS PRIMARY SCHOOL
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : 2021 CA2

SECTION A

Q 1	Q2	Q3	Q4	Q5	Q6	Q7
4	3	3	1	4	2	4

SECTION B

Q8)	Solid | Liquid | Gas
Q9)	ai) L and M aii) J and L b)Set-up K and Set-up M
Q10a)	Exposed surface area of water
Q10b)	F E G
Q10c)	The greater the exposed surface area of water in contact with the surrounding air, the greater the rate of evaporation.
Q11a)	Container A: Water droplets along the inner wall of the container, above water level Container B: Water droplets along the outer wall of the container, only where water touches the container
Q11b)	I can add ice cubes to the water
Q12)	The hot soup evaporated into warm water vapour. The warm water vapour came into contact with the cooler underside of the cover, lost heat and condensed to form water droplets on the underside of the cover