



**RAFFLES GIRLS' PRIMARY SCHOOL  
WEIGHTED ASSESSMENT (2)**

2021

Your Score	15
Parent's signature	

Name : \_\_\_\_\_ Index No.: \_\_\_\_\_ Class: P5 \_\_\_\_\_ Date: \_\_\_\_\_

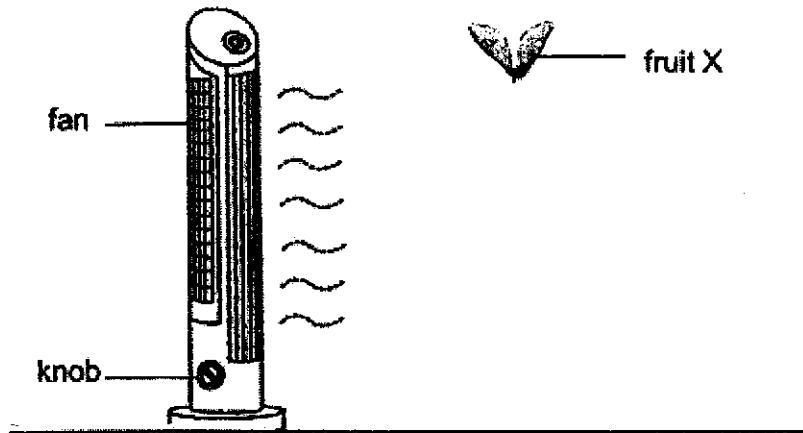
**SCIENCE**

**Duration: 30 min**

For questions 1 to 3, write your answers clearly in the spaces provided.

The number of marks is shown in brackets [ ] at the end of each question or part question.

1. Sam set up an experiment to find out if the speed of wind affects the distance moved by fruit X as shown below. The speed of wind of the fan can be adjusted from the slowest to the fastest by turning the knob from 1 to 5.



Sam recorded the results in the table below.

Knob of the fan	Distance moved by fruit X (cm)
1	50
2	103
3	147
4	188
5	210

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- (a) The following are the variables listed by Sam.

Identify the correct independent variable, dependent variable and constant variables in Sam's experiment by putting a tick ( $\checkmark$ ) in the correct boxes in the table below. [2]

Variables	Independent Variable	Dependent Variable	Constant Variables
Speed of wind			
Distance moved by fruit X			
Location of experiment			
Time taken for fruit X to reach the ground			
Height at which the fruit X was released			

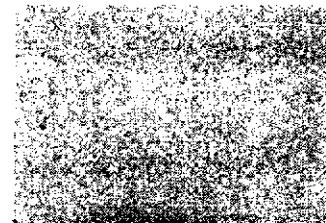
- (b) Based on his results above, state how the wind speed affected the distance moved by fruit X. [1]
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- (c) Explain why fruit X needs to be dispersed far away from the parent plant. [1]
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- (d) Name the physical characteristic of fruit X which helps in its dispersal. [1]
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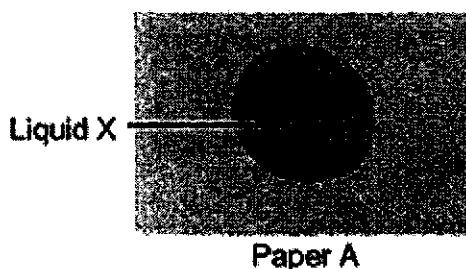
2. David has two identical pieces of paper, A and B, as shown below.



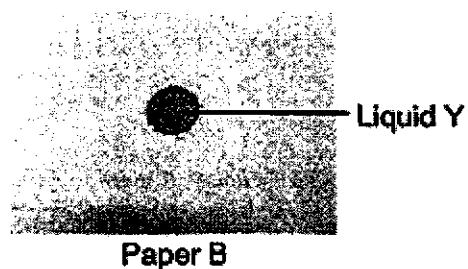
Paper A

Paper B

He placed one drop of liquid X and Liquid Y on papers A and B respectively as shown in the diagram below. (refer to powerpoint slide shown on the screen)



Liquid X

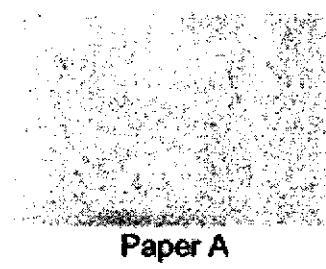


Liquid Y

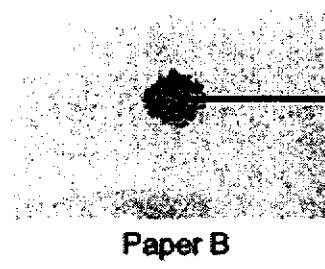
Paper A

Paper B

After three minutes, he made the following observations as shown below.  
(refer to powerpoint slide shown on the screen)



Paper A



Paper B

(a) Based on David's observation above, which liquid, X or Y, disappeared first? [1]

Liquid \_\_\_\_\_

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

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3	

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David carried out another experiment to find out the melting and boiling points of liquids X and Y. He recorded the results in the table below.

Liquids	Melting Point (°C)	Boiling Point (°C)
<input type="text"/>	- 114	78.5
<input type="text"/>	- 95	102

(c) Based on David's observation of liquids X and Y, complete the result table above by writing X and Y in the correct box. [1]

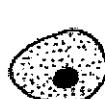
(d) Give a reason for your answer in (c). [1]

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3. The diagram below shows two cells, A and B, observed under a microscope.

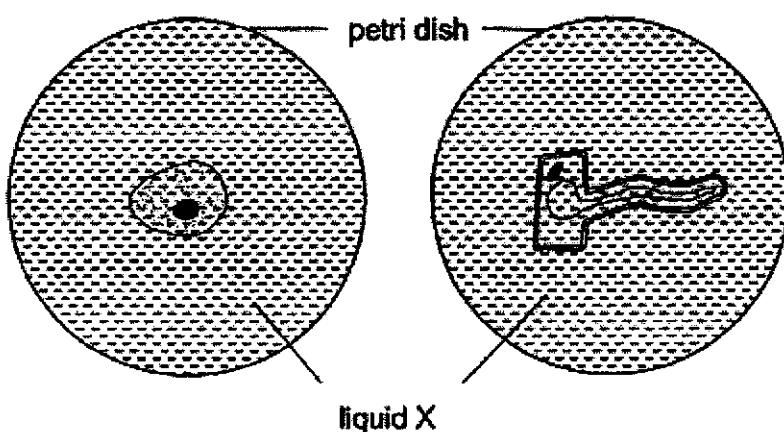


cell A

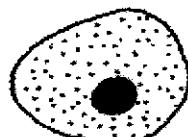


cell B

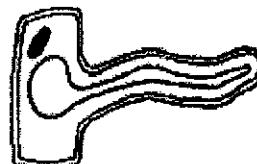
Next, cells A and B were placed on two identical petri dishes filled with the same amount of liquid X.



The diagram below shows the change in cells A and B observed under the microscope half an hour later.



cell A



cell B

- (a) Based on the diagrams above, what could be observed of cells A and B after half an hour? [1]

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1	

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- (b) Cells A and B were left in the same petri dish in liquid X for a few more hours.  
One of the cells burst. Identify the cell and explain why it burst.

[2]

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The diagram below shows cells C viewed under a microscope. (refer to powerpoint slide shown on the screen)



- (c) (i) Name the group of organism that has cell C.

[1]

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- (ii) Which part of the organism identified in (c)(i) can cells C be found? Explain your answer clearly.

[1]

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END OF PAPER

Score

4

**SCHOOL : RAFFLES GIRLS' PRIMARY SCHOOL  
 LEVEL : PRIMARY 5  
 SUBJECT : SCIENCE  
 TERM : 2021 WEIGHTED ASSESSMENT (2)**

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Q1)	a)							
	Variables	Independent Variable	Dependent Variable	Constant Variables				
	Speed of wind	✓						
	Distance moved by fruit X		✓					
	Location of experiment			✓				
	Time taken for fruit X to reach the ground							
Q2)	Height at which the fruit X was released			✓				
	b) As the wind speed increases, the distance moved by fruit X increases. c) To prevent overcrowding and competition for water, sunlight, space and nutrients between fruit X and its parent plant. d) Wing-like structures.							
a) Liquid X b) Liquid X gained heat from the surrounding and evaporated faster c)								
<table border="1"> <thead> <tr> <th>Liquids</th> <th>Melting Point (°C)</th> <th>Boiling Point (°C)</th> </tr> </thead> </table>					Liquids	Melting Point (°C)	Boiling Point (°C)	
Liquids	Melting Point (°C)	Boiling Point (°C)						

		X	-114	78.5
		Y	-95	102
d) Liquid X evaporated faster than liquid Y. Hence liquid X has a lower boiling point than liquid X.				
Q3)	a) They have increased in size b) Cell A burst. It does not have a cell wall. The cell wall protects / supports the cell. c) i) Plant ii) It is most likely taken from a leaf. It has chloroplast which contain chlorophyll for leaves to trap light for photosynthesis.			