



## **2023 PRIMARY 5 WEIGHTED ASSESSMENT 2**

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

Date: 19 July 2023

Class : Primary 5 ( )

Duration: 40 minutes

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

## **SCIENCE**

### **INSTRUCTIONS TO CANDIDATES**

1. Write your name, class and register number.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in the booklet.

Booklet A	16
Booklet B	14
Total	30

**Section A (8 x 2 marks)**

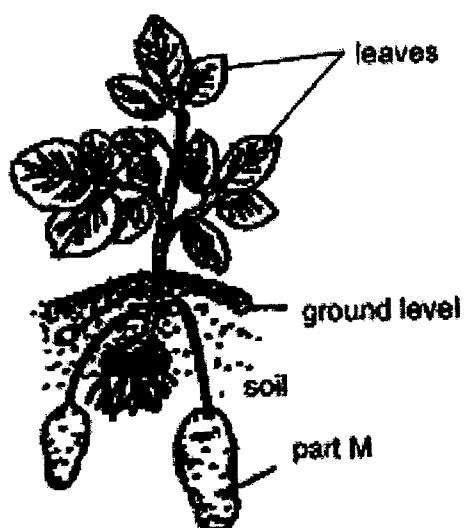
For each question from 1 to 8, four options are given. One of them is the correct answer.  
Make your choice (1, 2, 3 or 4) and write it in the brackets provided.

(16 marks)

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1. The diagram below shows a plant.

M is a part of the root where excess food is stored.



The plant is kept in a brightly lit garden and watered regularly.

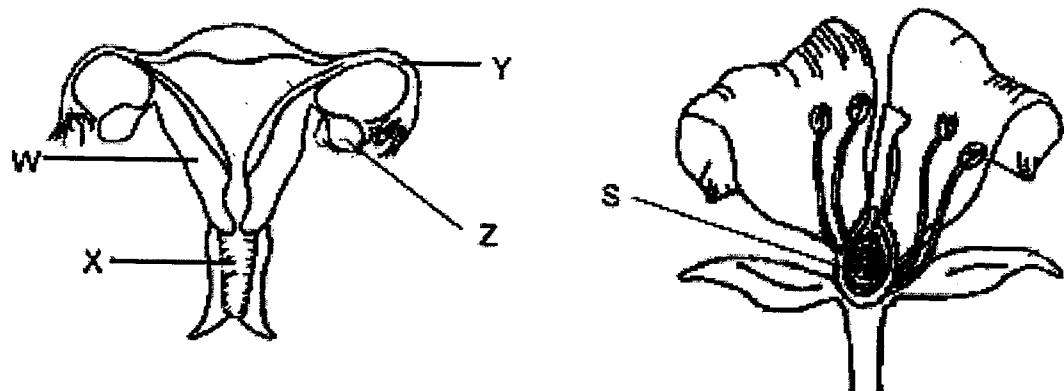
It is observed that part M grows bigger after one month.

Which of the following statements is true?

- (1) Food is made by part M itself.
- (2) Food is absorbed by part M from the soil.
- (3) Food is transported from the leaves to part M.
- (4) Food is transported from part M to the rest of the plant.

( )

2. Study the diagrams of the female human reproductive system and the plant reproductive system below.



Which part of the female human reproductive system has a similar function as part S?

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

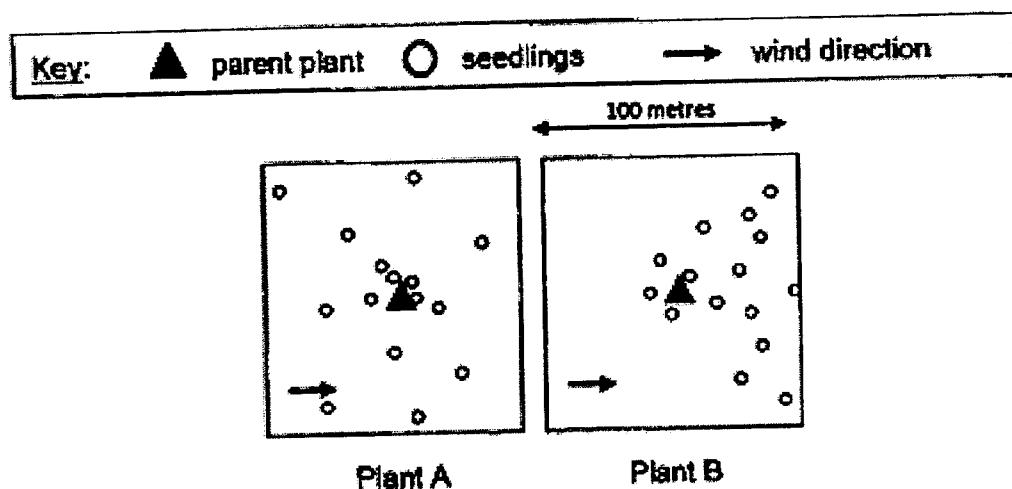
( )

3. Which of the following correctly classifies the parts into the respective body systems?

	Respiratory System	Digestive System	Circulatory System
(1)	Gullet	Stomach	Blood vessels
(2)	Mouth	Windpipe	Heart
(3)	Nose	Mouth	Blood vessels
(4)	Heart	Small intestine	Lungs

( )

4. The diagrams below show the seed dispersal patterns of two different plants, A and B.

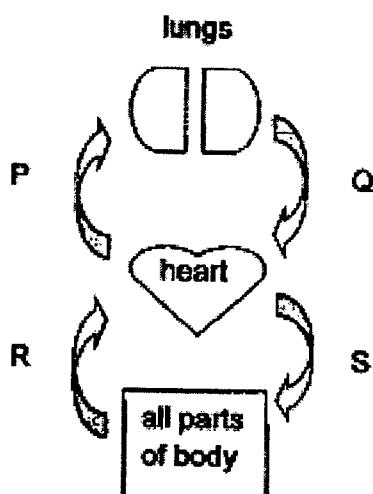


Which of the following shows the correct method of seed dispersal and a likely characteristic of the fruit?

Plant	Method of Dispersal	Characteristic of fruit
(1) A	Wind	Light with feather-like structures
(2) A	Animal	Juicy and fleshy
(3) B	Wind	Has hook-like structures
(4) B	Explosive action	Splits open when matured

( )

5. The diagram below shows the circulation of blood in the human body.



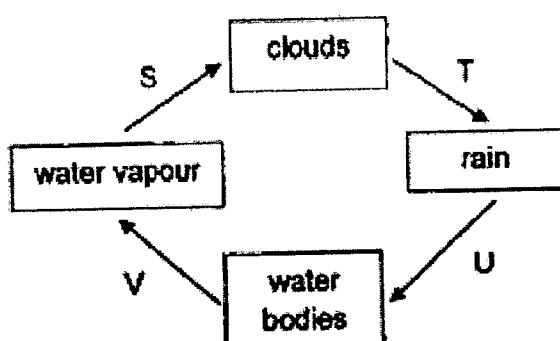
Arrows P, Q, R and S, are blood vessels carrying blood rich in either oxygen or carbon dioxide.

Which of the following correctly shows the blood content in these vessels?

	Blood rich in oxygen	Blood rich in carbon dioxide
(1)	P, Q	R, S
(2)	P, R	Q, S
(3)	R, S	P, Q
(4)	Q, S	P, R

( )

6. The diagram below shows the water cycle.



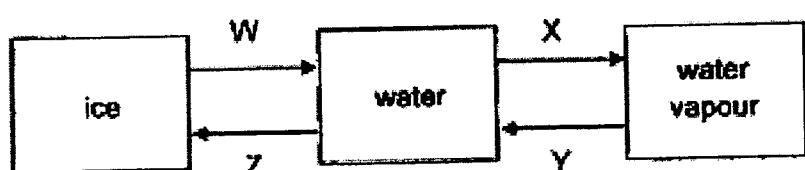
Which processes involve a change in the state of water?

- (1) S and U only
- (2) S and V only
- (3) T and V only
- (4) S, T and V only

(      )

7. The diagram below shows the changes in the state of water.

The processes involved are represented by W, X, Y and Z.



Which one of the following statements is true?

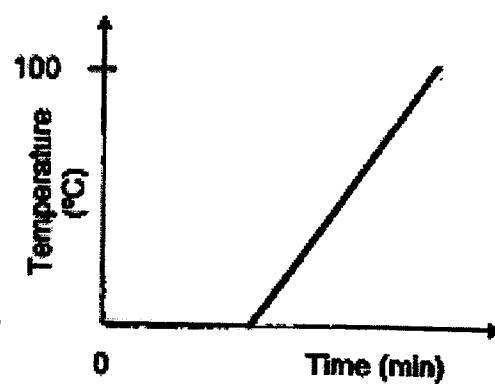
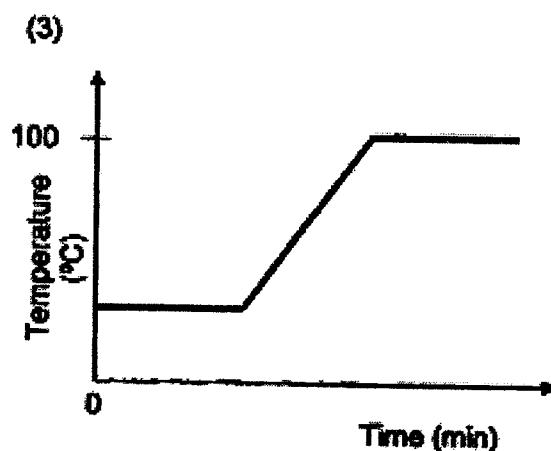
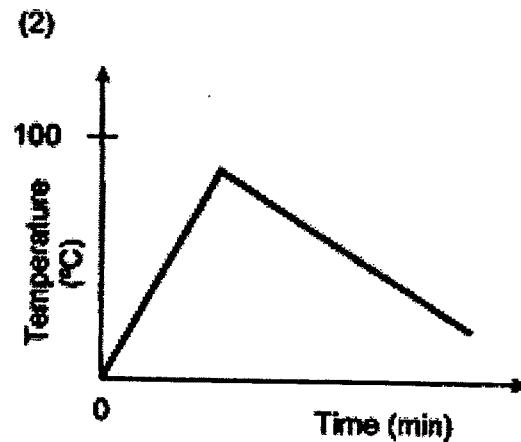
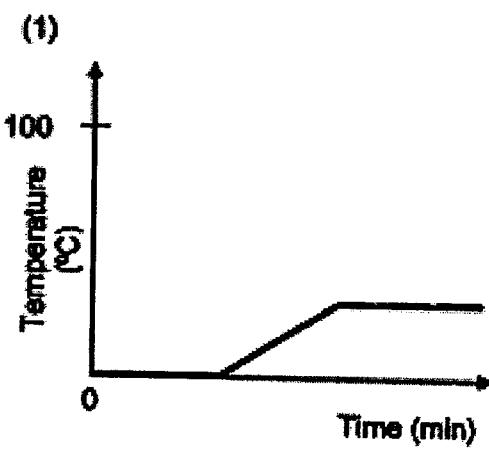
- (1) Water loses heat at process X and gains heat at process Y.
- (2) Ice and water gain heat during processes W and X respectively.
- (3) Ice and water vapour lose heat during processes W and Y respectively.
- (4) Process W takes place at a higher temperature as compared to process Z.

(      )

8. Jericho placed a beaker of ice on a table at room temperature.

He monitored the temperature of the content in the beaker with a thermometer, and recorded the temperature over time.

Which one of the following graphs shows the changes in the temperature of the content in the beaker over time correctly?



( )

End of Section A

**Section B (14 marks)**

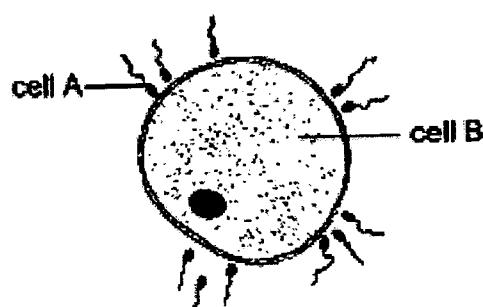
For questions 9 to 13, write your answers clearly in this section.

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

(14 marks)

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9. The diagram below shows two types of reproductive cells, A and B.



- (a) State the reproductive organs where the following type of cells are produced in. [1]

(i) Organ producing cell A: \_\_\_\_\_

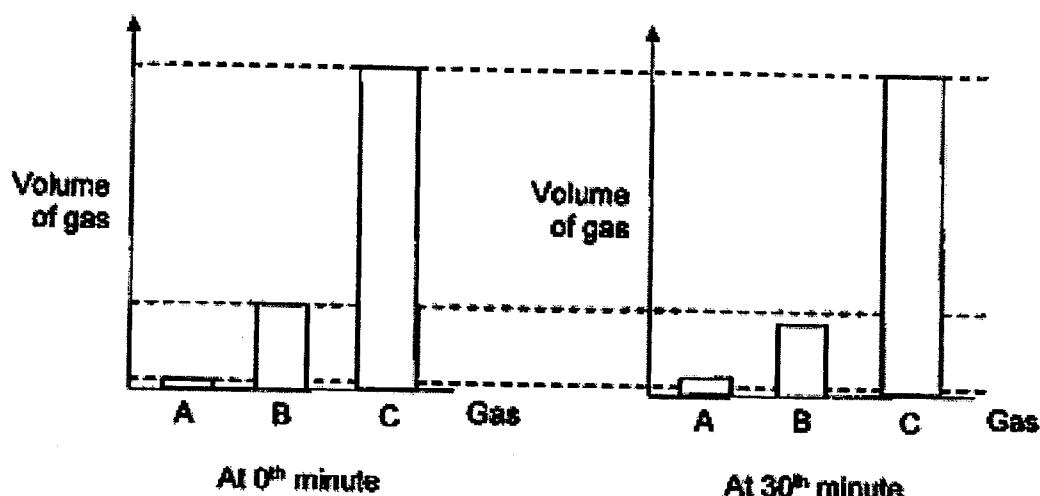
(ii) Organ producing cell B: \_\_\_\_\_

- (b) State the process in the diagram: [1]
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Score	2
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10. A group of students were trapped in a lift. They shouted for help continuously for 30 minutes.

The two bar graphs below show the volume of gases, A, B and C, in the lift at the 0<sup>th</sup> minute and at the 30<sup>th</sup> minute.



- (a) Identify the two gases. [1]

Gas B: \_\_\_\_\_

Gas C: \_\_\_\_\_

- (b) If the students kept calm and quiet for 30 minutes, would the volume of gas A measured at the 30<sup>th</sup> minute be higher, the same, or lower than that shown in the graph at the 30<sup>th</sup> minute? Explain your answer. [1]

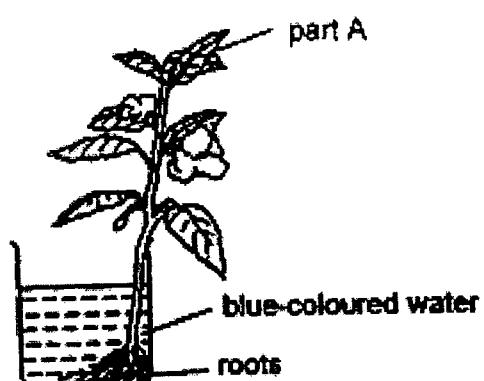
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Score	2
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11. Jennifer placed a plant in blue-coloured water as shown below.

After one day, she observed that part A had turned blue.



- (a) Explain why part A turned blue.

[1]

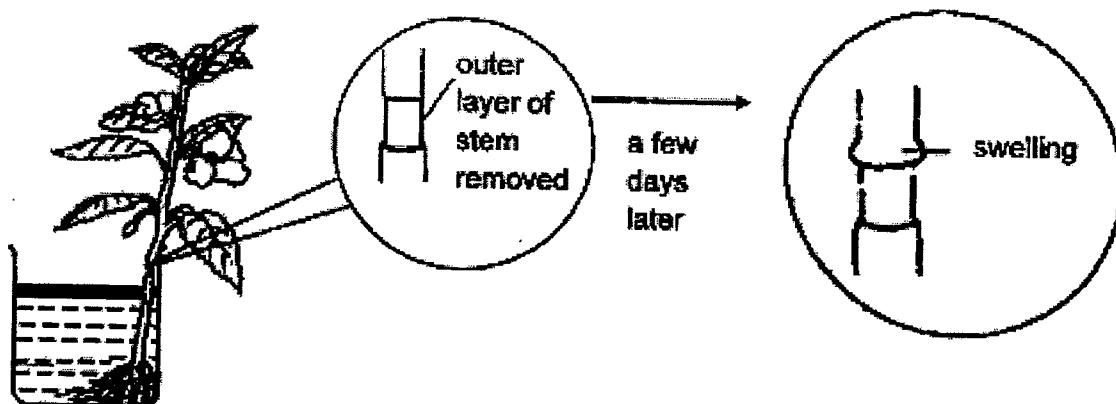
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Score	1
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Jennifer conducted another experiment using the same set-up.

She cut out a small ring of the outer layer of the stem as shown in the diagram below.



After a few days, Jennifer observed swelling only above the cut out layer of the stem as shown above.

- (b) Based on the diagram provided, explain why there was swelling above the ring of the stem.  
[1]

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Score	1
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12. Azmi placed a beaker of ice on the table.



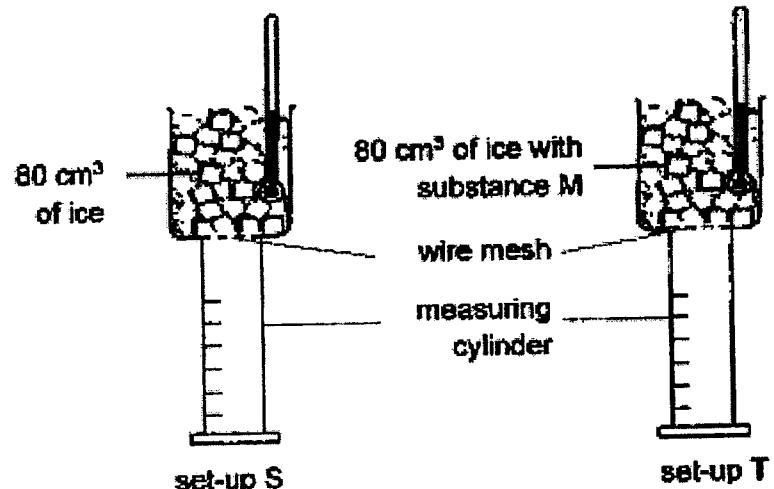
- (a) Explain why water droplets were observed on the outer surface of the beaker after a few minutes. [1]

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Azmi wanted to find out if the presence of substance M would affect the melting rate of ice.

He used the set-ups shown below for his experiment.



He placed set-up S in his classroom and set-up T in the open field.

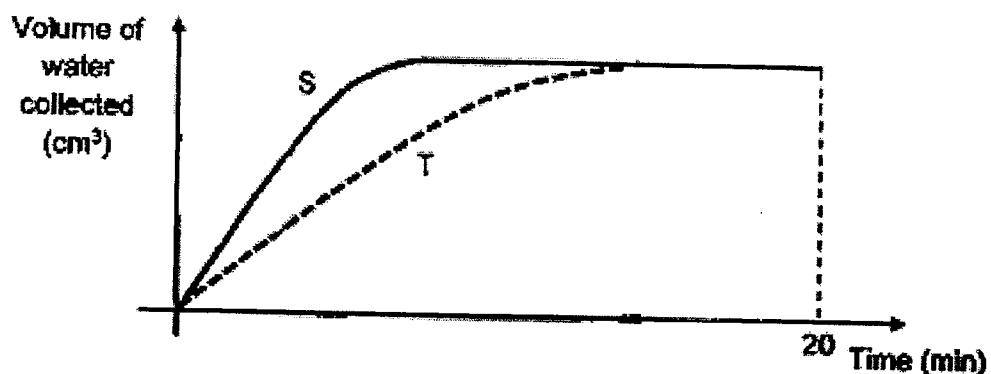
- (b) Explain why putting the set-ups in different locations does not ensure a fair test. [1]

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Score	2
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His friend, Caleb, performed the same experiment with both set-ups, S and T, in the classroom.

The graph below shows the results.



- (c) Using the graph, state the effect of substance M on the rate of melting of the ice. [1]

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- (d) Using the graph, explain how you arrived at your answer in (c). [1]

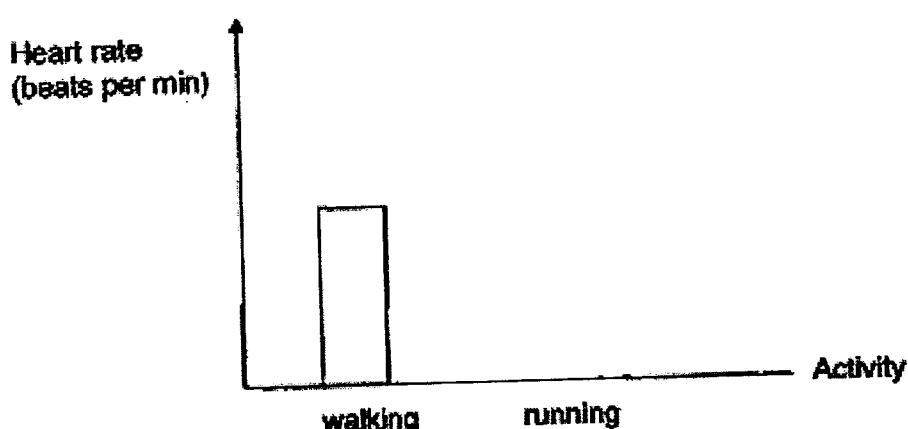
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Score	2
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13. Harry conducted two different activities, walking and running. He measured his heart rate for each activity. He only recorded his results for walking in the graph below.

(a) Draw a bar graph to represent Harry's heart rate when he was running. [1]



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

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Before the run, Harry ate a banana to help him complete the run.

(c) State how the digestive system works with the circulatory system to allow Harry to complete the run. [1]

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End of Paper

Score	4
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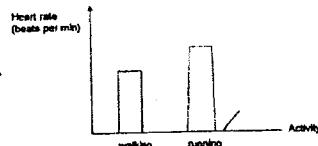
SCHOOL : TAO NAN PRIMARY SCHOOL  
LEVEL : PRIMARY 5  
SUBJECT : SCIENCE  
TERM : 2023 WA2

CONTACT :

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Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
3	4	3	2	4	2	2	1

Q9)	a)i)testis ii)ovary  b)The process Fertilisation
Q10)	a) Gas B : Oxygen Gas C : Nitrogen  b) Lower. The students will produce less carbon dioxide when they are not shouting
Q11)	a) Water taken in by the roots is transported by the water-carrying tubes to part A.  b) Food that was produced by the leaves could not be transported to the roots as the food-carrying tube was removed. Therefore, the food trapped started to gather more food and started to swell.
Q12)	a) The warmer water vapour in the surrounding came into contact with the cooler surface of the beaker and condensed into water droplets.  b) The location could be hotter and cause the ice to melt faster or if the location is colder, it will not gain heat as fast.  c) Substance M decreases the melting rate of ice.

	<p>d) A longer time was needed to collect the same volume of water.</p>
Q13)	<p>a)</p>  <p>A bar chart titled 'Heart rate (beats per min)' on the vertical axis and 'Activity' on the horizontal axis. There are two bars: one for 'walking' and one for 'running'. The 'walking' bar reaches approximately halfway up the vertical axis. The 'running' bar reaches the top of the vertical axis.</p> <p>c) Harry's heart pumps faster for blood to transport more oxygen and digested food to all parts of the body.</p> <p>d) The digested system absorbs the digested food into the bloodstream for the circulatory system into transport to all part of his body.</p>