Anglo-Chinese School (Junior)

BITE-SIZED ASSESSMENT 1 (2025)

PRIMARY 5

SCIENCE

Tuesday **4 March 2025** **35 min**

Name: _____( ) Class: 5.( ) Parent's Signature:_____

INSTRUCTIONS TO PUPILS

1 Do not turn over the pages until you are told to do so.

2 Follow all instructions carefully.

3 There are 7 questions in this booklet.

4 Answer ALL questions.

5 The marks are given in the brackets [ ] at the end of each question or part question.

Question Paper	Possible Marks	Marks Obtained
Total	**15**	

This question paper consists of 7 printed pages (inclusive of cover page).

Answer questions 1 to 7. The number of marks available is shown in the brackets [ ] at the end of each question.

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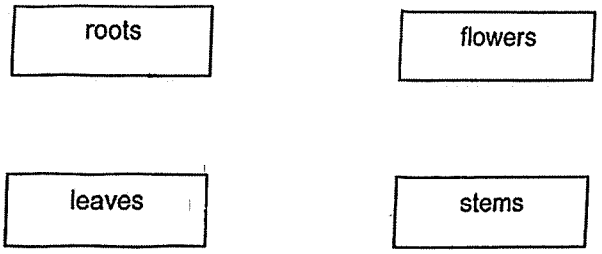
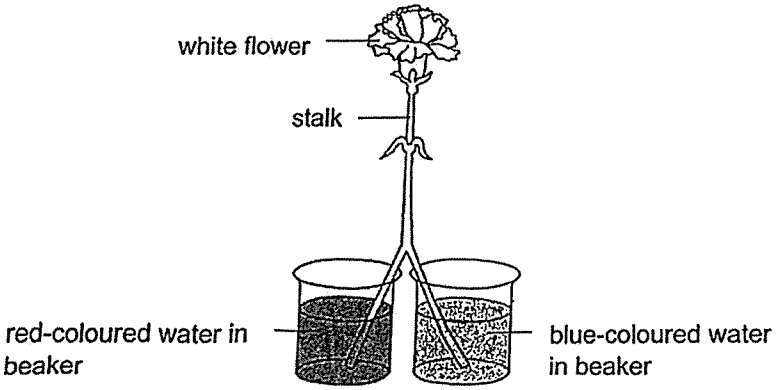
1. The diagram shows four parts of a plant.



(a) Draw arrows (⟶) in the diagram above to show how water and mineral salts are transported in plants. [1]

Joe cut a stalk of a white flower into halves. He placed one half into a beaker with red-coloured water and the other half into a beaker with blue-coloured water. He expected the flower to turn purple after leaving the set-up overnight.



(b) The next day, Joe observed that one half of the flower turned red, while the other half turned blue instead. Explain why. [1]

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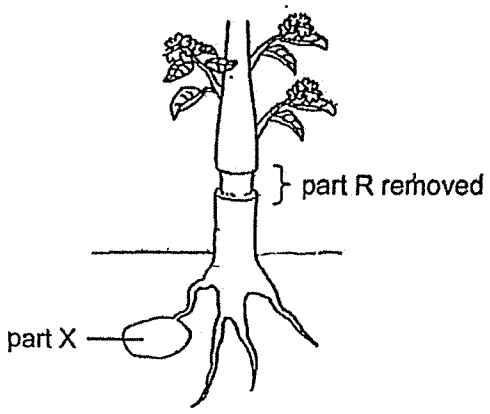
SCORE	2

2. On a healthy plant, a ring of stem part R, that contains the food-carrying tubes was removed as shown.



The plant stores its excess food in part X.

Explain why part X became smaller a few days after part R was removed. [2]

3. State one difference between how the fish and human take in oxygen. [1]

(Go on to the next page)

SCORE	/ 3

4. (a) Describe how oxygen in the surroundings enters the human circulatory system. [2]

The table compares the amounts of certain gases in inhaled air and exhaled air.

(b) Fill in the words "More", "Less" or "Same" in the boxes to complete the table. [1]

Amount of Gas	Inhaled Air	Exhaled Air
carbon dioxide		
oxygen		

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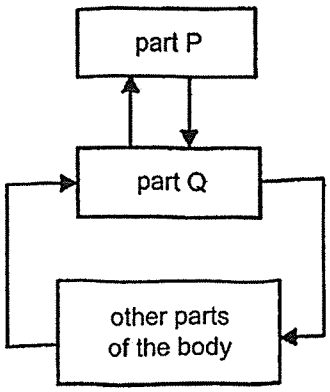
SCORE / 3

5. The diagram shows the direction of blood flow in humans. The arrows represent blood vessels transporting blood to the different parts of the body.



(a) Name parts P and Q. [1]

P: _____

Q: _____

(b) State one similarity between the human circulatory system and the plant transport system. [1]

_____

_____

(Go on to the next page)

SCORE	/ 2

6. The table shows June's heart rate while doing activities with changing difficulty.

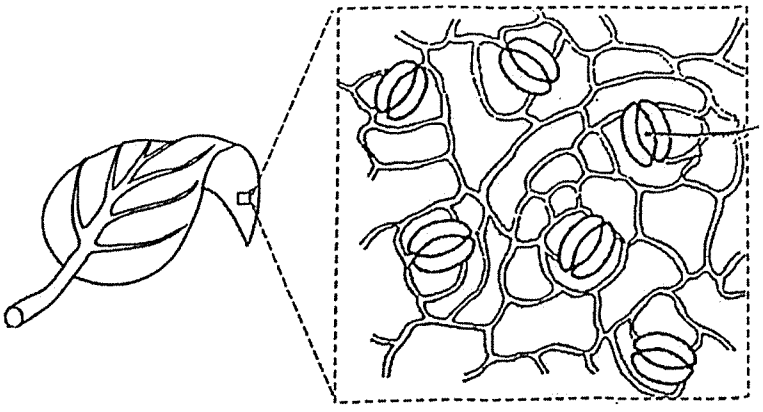
Activity	Heart rate (beats per minute)
Reading a book	60
Walking	90
Jogging	130
Sprinting	180

(a) State the relationship between the different activities and June's heart rate. [1]

(b) Explain how the different activities affect June's heart rate. [1]

7. Lauren observed the underside of a leaf as shown.

(a) In the diagram, label and name the part of the leaf that performs the same function as the gills of a fish. [1]



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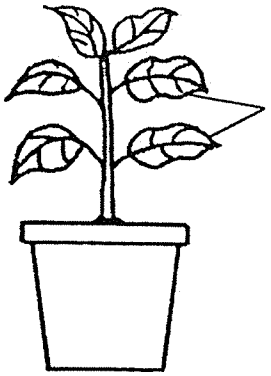
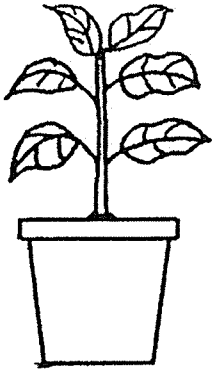
SCORE	/ 3

Lauren wanted to find out if coating the leaves of a plant with oil affects its growth. She prepared two similar setups which she watered daily. She only coated both sides of the leaves of the plant in setup X with oil.



Setup X



Setup Y

(b) State two other variables that Lauren should keep the same in her experiment. [1]

_____

_____

(c) After 10 days, Lauren observed that only plant X withered. Explain why. [1]

_____

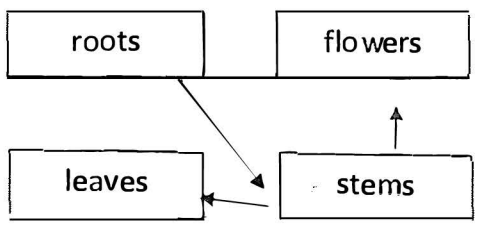
_____

End of Paper

SCORE	/ 2

SCHOOL : Anglo Chinese School (Junior)
LEVEL : PRIMARY 5
SUBJECT : SCIENCE
TERM : Bite-Sized Assessment 1 (2025)

1a)



1b) The water-carrying tubes (xylem vessels) were separated, preventing the mixing of the dye.

2) When the ring of the stem part R is removed, the food-carrying tubes (phloem) is disrupted, preventing the transport of food produced by the by the leaves to the roots. As a result, the stored food in part X (the roots) is consumed for survival, causing it becomes smaller.

3) Fish take in dissolved oxygen from the water using gills, while humans take in oxygen from the air using lungs.

4a) Oxygen enters the human circulatory system through the process of inhalation, where it diffuses from the alveoli (tiny air sacs) in the lungs into the bloodstream, which is then transported to the heart and distributed to the body.

4b)

Amount of Gas	Inhaled Air	Exhaled Air
Carbon dioxide	Less	More
Oxygen	More	Less

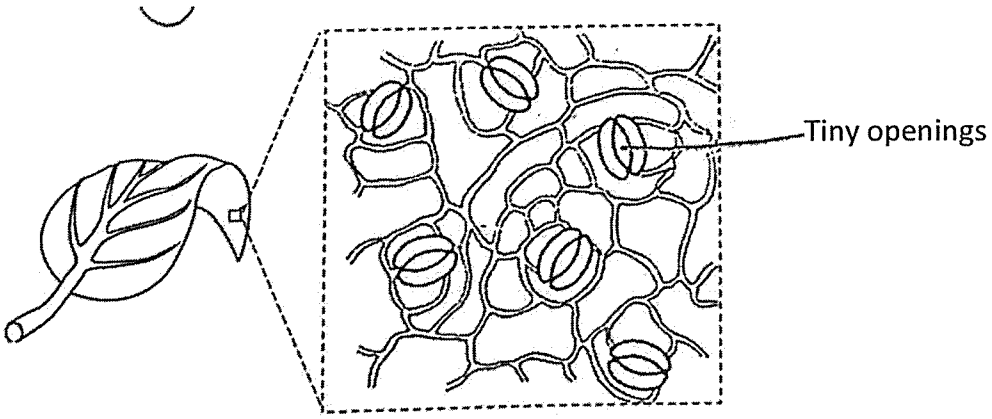
5a) P : lungs
Q: heart

5b) Both systems transport substances to all parts of the organisms through tubes or vessels.

6a) As the intensity of the activity increases, June's heart rate also increases.

6b) When engaging in more vigorous activities, the body require more oxygen and nutrients to be delivered to the muscles. To meet the increase demand, the heart rate increases to pump more blood throughout the body.

7a)



7b) i) The presence of light
ii) The amount of water

7c) The oil blocked the stomata, preventing gas exchange. This stopped the plant from taking in carbon dioxide necessary for photosynthesis, therefore preventing it from producing food. As a result, Plant X withered due to lack of food.