

**NANYANG PRIMARY SCHOOL**  
**Term 1 Non- Weighted Assessment**  
**Science**  
**Primary 6**

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

Class: 6 \_\_\_\_\_ Parent's signature: \_\_\_\_\_

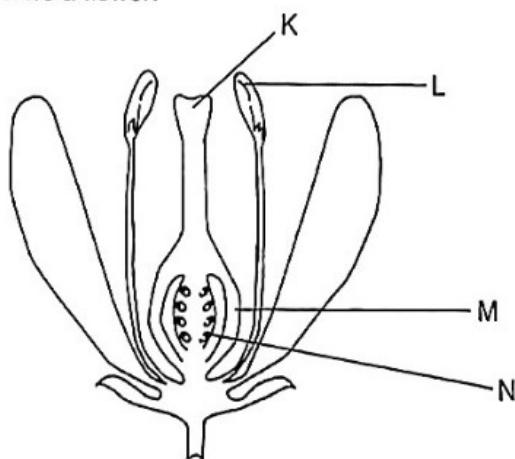
**Dear Parent/Guardian,**

Please sign the Weighted Assessment paper and have your child/ward return it the next day.  
Any query should be raised at the same time when returning the paper.

**Section A: Multiple Choice Questions (12 marks)**

For each question from 1 to 6, four options (1, 2, 3 and 4) are given. One of them is the correct answer.  
Indicate your choice in the brackets provided.

1. The diagram below shows a flower.



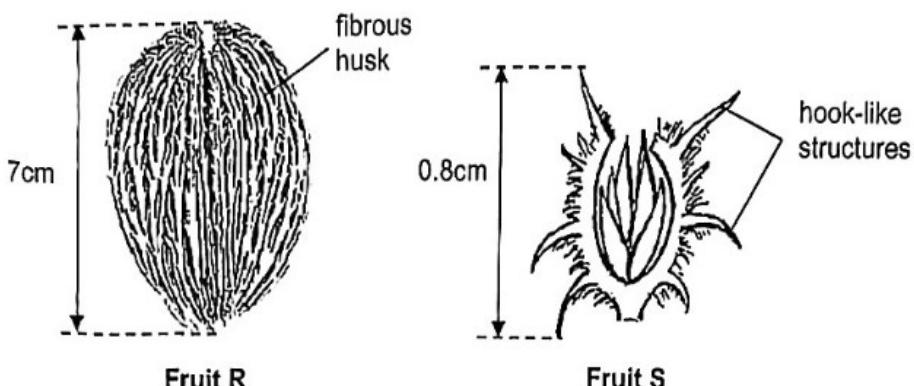
Which of the following is correct after pollination and fertilisation have taken place?

|     | <b>Develops into a seed</b> | <b>Develops into a fruit</b> |
|-----|-----------------------------|------------------------------|
| (1) | L                           | K                            |
| (2) | K                           | L                            |
| (3) | N                           | M                            |
| (4) | M                           | N                            |

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2. Ralph observed two fruits, R and S, as shown below.

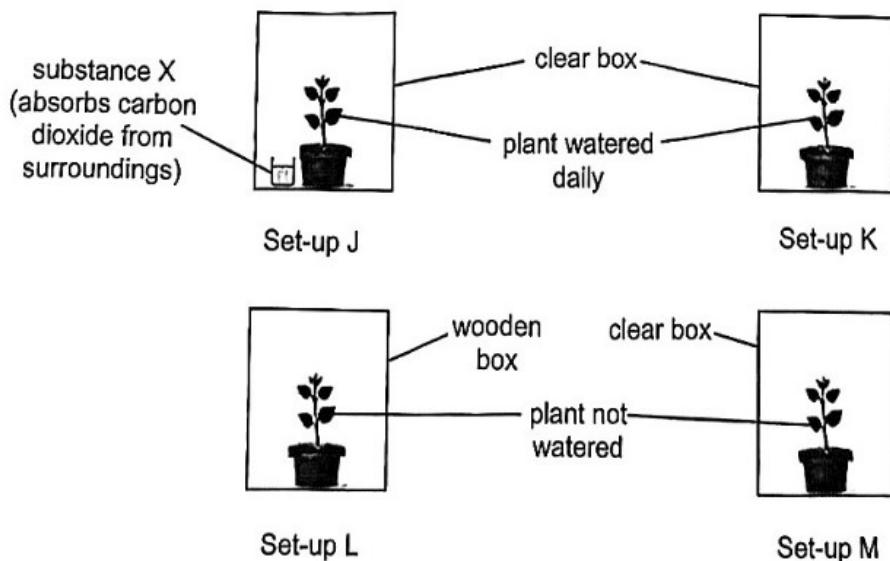


Based on the diagrams above, which of the following shows the most likely dispersal methods for fruits R and S?

|     | Fruit R          | Fruit S |
|-----|------------------|---------|
| (1) | water            | animals |
| (2) | water            | wind    |
| (3) | explosive action | animals |
| (4) | explosive action | wind    |

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3. Rani wanted to conduct an experiment to find out if water is needed for photosynthesis. She placed four similar plants in the set-ups by the window as shown below.



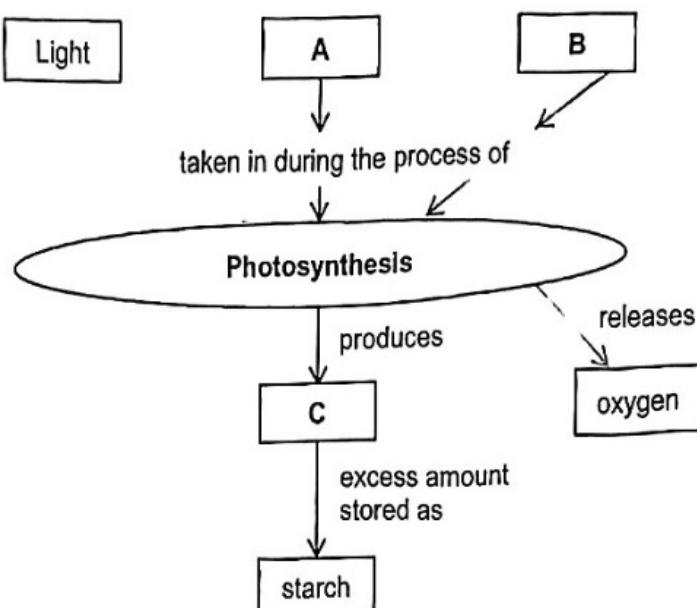
Which two set-ups should she use to test the aim of her experiment?

- (1) J and K  
(3) J and M

- (2) K and L  
(4) K and M

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4. Study the diagram shown below.



Which of the following best represents substances A, B and C?

|     | A      | B              | C              |
|-----|--------|----------------|----------------|
| (1) | sugar  | water          | carbon dioxide |
| (2) | water  | carbon dioxide | sugar          |
| (3) | water  | oxygen         | sugar          |
| (4) | oxygen | water          | carbon dioxide |

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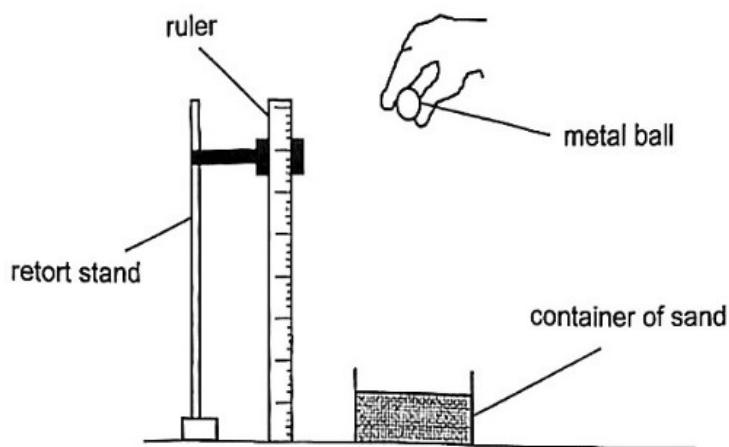
5. Sumin has a torch. When she inserts the batteries and turns on the switch, the bulb of the torch lights up.

Which of the following correctly shows the main forms of energy present at the following parts of the torch?

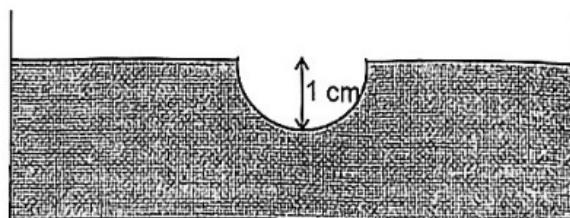
|     | Batteries         | Wires               | Bulb                |
|-----|-------------------|---------------------|---------------------|
| (1) | electrical energy | → light energy      | → heat energy       |
| (2) | electrical energy | → potential energy  | → light energy      |
| (3) | potential energy  | → electrical energy | → light energy      |
| (4) | potential energy  | → heat energy       | → electrical energy |

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6. Ali carried out an experiment using a metal ball. He dropped the ball from a height of 20 cm onto a container of sand as shown in the diagram below.



The ball created a dent, 1 cm deep, in the sand.



How would the depth of the dent change as the height at which the ball is dropped changes?

| Height at which ball is dropped (cm) | Depth of dent  |
|--------------------------------------|----------------|
| (1) 10                               | more than 1 cm |
| (2) 30                               | less than 1 cm |
| (3) 40                               | less than 1 cm |
| (4) 50                               | more than 1 cm |

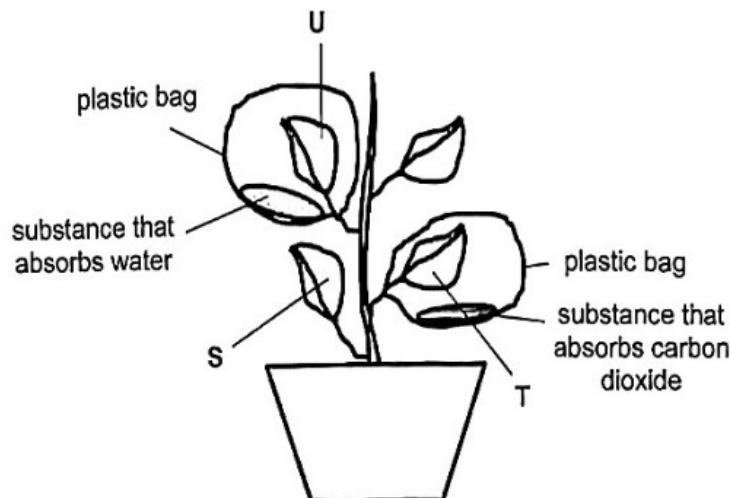
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**Section B: Open-Ended Questions (8 marks)**

For questions 7 and 8, fill in your answers in the spaces provided.

7. Ben wanted to carry out an experiment to find out the conditions needed for photosynthesis.

After placing a potted plant in the dark for 24 hours, he wrapped two leaves using a clear plastic bag each and placed different substances in each bag. The substances would absorb either carbon dioxide or water from the surrounding. He watered the plant before placing the set-up in a sunny location. His set-up is shown below.



He placed the plant under bright sunlight for 6 hours, from 8 a.m. to 2 p.m. He then carried out the iodine test to check for the presence of starch. The presence of starch would cause the iodine to turn blue-black, while a yellowish-brown indicates the absence of starch.

- (a) State the part found in the leaf that allows it to trap light. [1]

- (b) In the table below, put a tick (✓) in the correct box to show the results of the iodine test when leaf S and T are tested for the presence of starch. [1]

| Leaf | Colour of iodine when tested for the presence of starch |            |
|------|---|------------|
|      | Yellowish-brown   | Blue-black |
| S    |   |            |
| T    |   |            |

Ben tested leaf U for the presence of starch.

- (c) What would the colour of the iodine on leaf U be? Explain your answer. [2]

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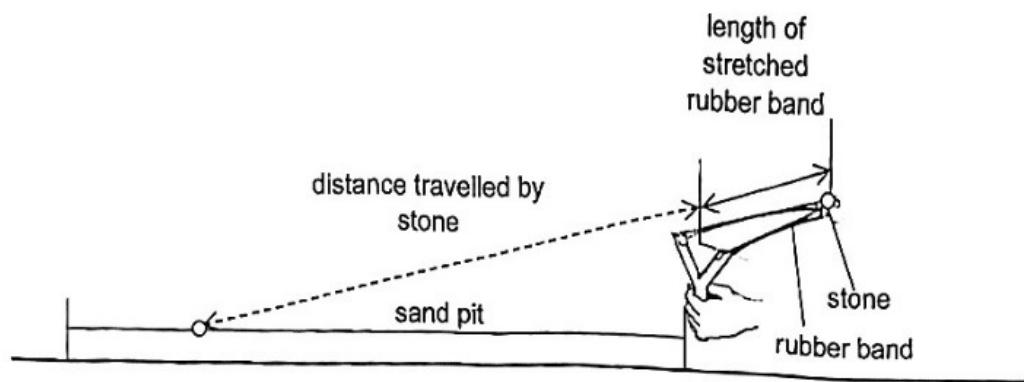


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8. John wanted to find out how the length of the stretched rubber band of his slingshot affects the distance travelled by the stone. He placed a stone on the elastic band of the slingshot and stretched it before releasing the stone, as shown in the diagram below.



He recorded the distance travelled by the stone. He then repeated the experiment but stretched the rubber band to different lengths each time. His results are shown in the table below.

| Length of stretched rubber band (cm) | Distance travelled by the stone (cm) |           |           |
|--------------------------------------|--------------------------------------|-----------|-----------|
|                                      | Reading 1                            | Reading 2 | Reading 3 |
| 10                                   | 100                                  | 98        | 103       |
| 15                                   | 146                                  | 149       | 152       |
| 20                                   | 221                                  | 219       | 223       |

- (a) Explain why John had to take three readings for the different lengths of the stretched rubber band. [1]

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- (b) John noticed that the distance travelled by the stone increased when the length of the stretched rubber band increased. Explain his observations in terms of energy. [2]

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- (c) When John launched the stone, he made sure that the stone landed on a sand pit before measuring the distance travelled by the stone. Why did he use the sand pit? [1]

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- End of Paper -

**Nanyang Primary School  
P6 SCIENCE NWA1 2024  
Suggested Answer Key**

**Section A**

|    |   |    |   |    |   |
|----|---|----|---|----|---|
| 1. | 3 | 2. | 1 | 3. | 4 |
| 4. | 2 | 5. | 3 | 6. | 4 |

**Section B**

| <b>Qn No</b> | <b>Acceptable Answers</b>   |
|--------------|---|
| 7a.          | Chlorophyll / Chloroplasts  |
| 7b.          | Leaf S – iodine turns blue-black.<br>Leaf T – iodine remains yellowish-brown  |
| 7c.          | Choice: Blue-black.<br>Data: The leaf can still get water from the roots/ water-carrying tubes.<br>Explain: Photosynthesis can take place                 |
| 8a.          | To ensure that the results are reliable.  |
| 8b.          | As the elastic band was stretched more, there was more (elastic) potential energy that is converted/ transferred to (more) kinetic energy (of the stone). |
| 8c.          | To ensure accuracy in the measurement of the distance travelled by the stone.   |
|              |   |
|              |   |
|              |   |

