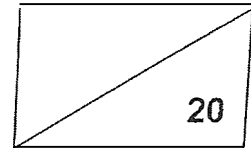


NANYANG PRIMARY SCHOOL
Term 1 Weighted Assessment
Science
Primary 5



Name: _____ () Date: _____

Class: 5 _____ 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. Helen placed a metal cup and a plastic cup on the same table in a room with a surrounding temperature of 25°C. She then poured 100 ml of water at 90°C into each cup.



She measured the temperature of the water after 10 minutes. The results are shown below.

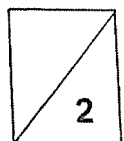
	Temperature of water in cup (°C)	
	start	after 10 minutes
metal cup	90	50
plastic cup	90	80

Which of the following best explains why the water in the plastic cup was hotter than the water in the metal cup after 5 minutes?

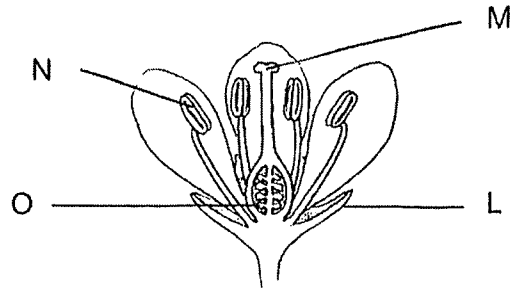
- (1) The plastic cup is a better conductor of heat than the metal cup.
- (2) The plastic cup had a lower temperature than the metal cup at the start of the experiment.
- (3) The plastic cup conducted heat away from the water to the surrounding air faster than the metal cup.
- (4) The plastic cup conducted heat away from the water to the surrounding air slower than the metal cup.

1

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2. The diagram shows a flower with its parts labelled.

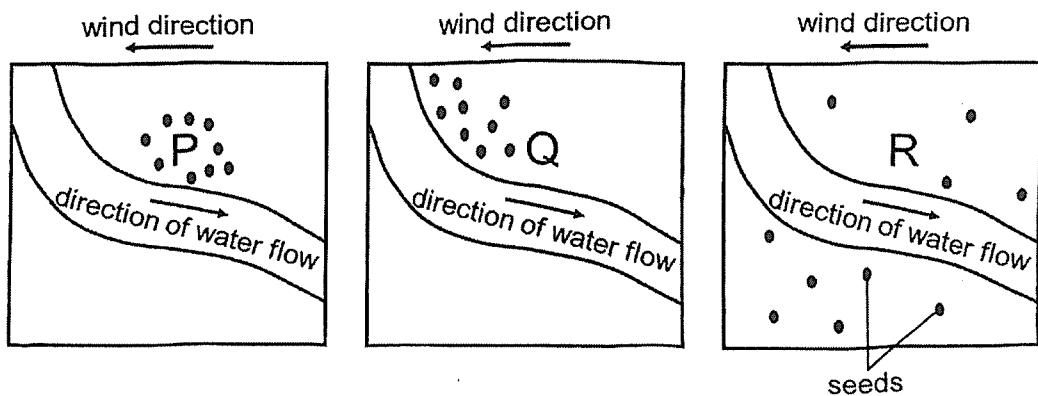


Which of the following parts is **not** required for a plant to undergo pollination and fertilisation?

- (1) L
- (2) M
- (3) N
- (4) O

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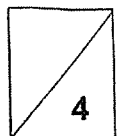
3. The diagram shows the spread of the seeds by plant P, Q and R found at distances away from the parent plants.



Based on the diagram above, which of the following will most likely be a characteristic of the fruits or seeds of plants P, Q and R?

	Fruit/Seed of Plant P	Fruit/Seed of Plant Q	Fruit/Seed of Plant R
(1)	sticky hairs	light and feathery	light and feathery
(2)	pod-like structure	light and feathery	hook-like structure
(3)	hook-like structure	pod-like structure	light and feathery
(4)	pod-like structure	hook-like structure	light and feathery

()

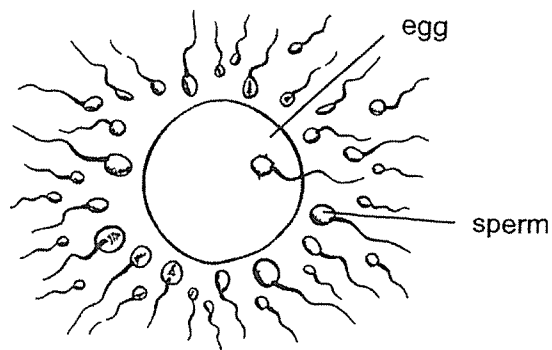


4. Which part of the human body produces the male reproductive cells?

- (1) penis
- (2) womb
- (3) testes
- (4) ovaries

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5. The diagram shows a process in human reproduction.

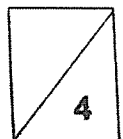


Which statements are **wrong**?

- A This process occurs in the penis.
- B This process is called fertilisation.
- C The fertilised egg develops in the ovary.
- D Only one sperm is required to fuse with the egg.

- (1) A & B only
- (2) A & C only
- (3) B & C only
- (4) B & D only

()



6. Jared made the following statements about the similarities of sexual reproduction in both humans and plants.
- A All male reproductive cells are called sperms.
 - B Living things reproduce to ensure the continuity of the species.
 - C Fertilisation occurs when the male and female reproductive cells fuse.

Which of the following statements is/are true?

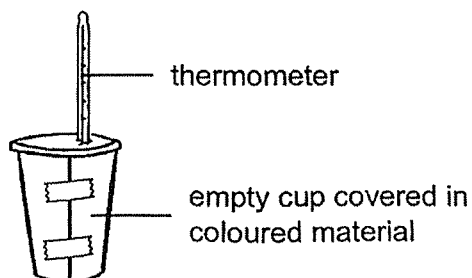
- (1) A and B only
- (2) A and C only
- (3) B and C only
- (4) A, B and C

()

Section B: Open-Ended Questions (8 marks)

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

7. A group of students wanted to create a cup find out how the colour of the cup affects the temperature of air in the cup. They covered four identical cups with the same type of material. Each material was made with a different colour.



- (a) State if the variable below needs to be changed or kept constant by placing a tick (✓) in the correct column. [1]

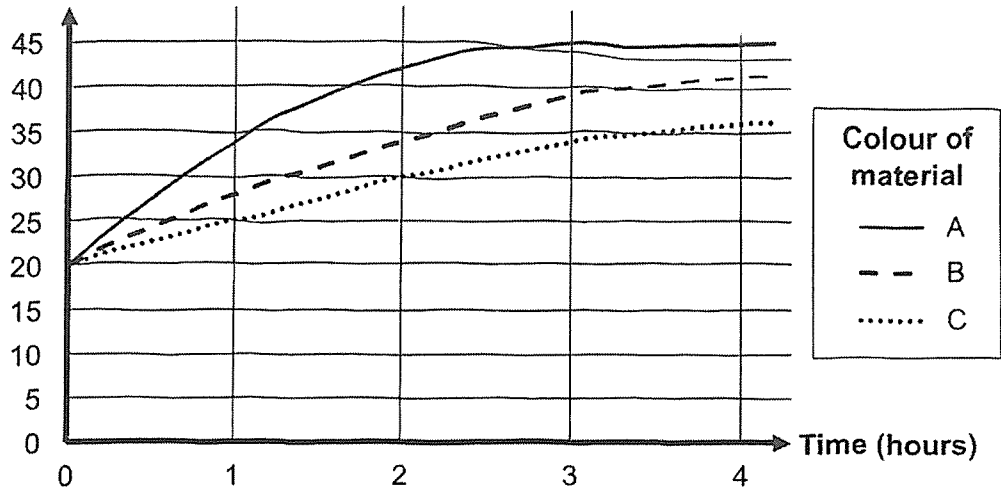
Variable	Changed	Kept Constant
Colour of material		
Thickness of material		
Time taken for experiment		
Temperature of surroundings		

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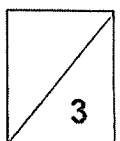
The students measured the temperature of air in each cup at different times and plotted the results in the graph as shown below.

Temperature of air in cup (°C)

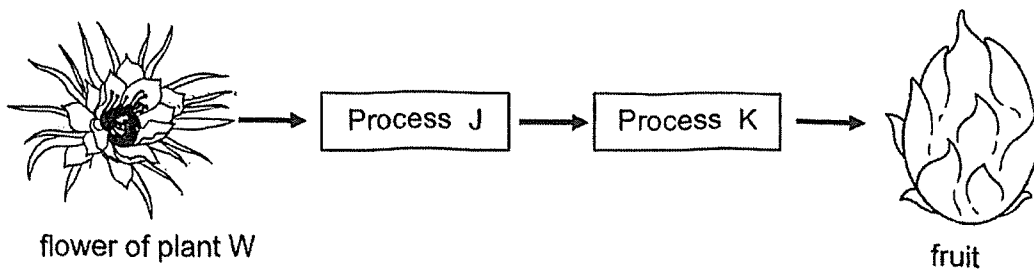


- (b) Which coloured material should be used to create a cup to keep iced drinks cold for the longest time? Explain your answer. [2]

- (c) State what they can do to increase the reliability of their results. [1]

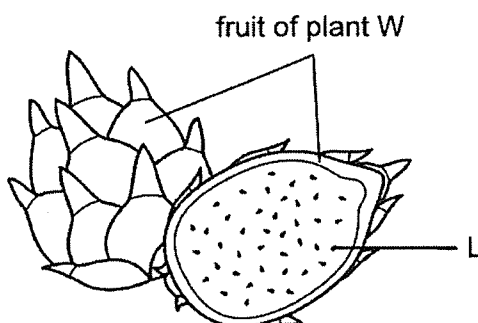


8. Nolem observed that two processes took place for the flower of plant W to form a fruit, as shown in the diagram below.



- (a) Describe process J. [1]

When Nolem cut open the fruit, he observed that it contained a large number of part L, and they were very small.

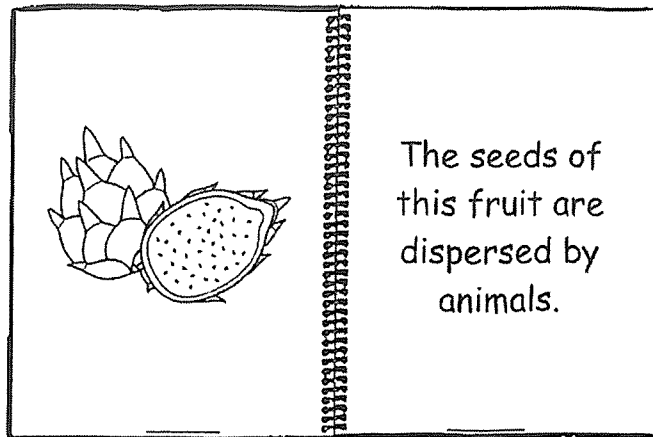


- (b) State the part of the flower that L developed from. [1]

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Nolem read a book on the dispersal of fruits and seeds and recorded what he had learned in his notebook.



Nolem ate the fruit of plant W and discovered that the fruit was juicy and fleshy.

(c) How does having a fleshy fruit helps in the dispersal of plant W? [1]

(d) Explain why it is important for plants to disperse their fruits. [1]

- End of Paper -

Nanyang Primary School
P5 SCIENCE WA1 2024
Suggested Answer Key

Section A

1	4	4	3
2	1	5	2
3	2	6	3

Section B

Qn No	Suggested Answers															
7.																
(a)	<table border="1"> <thead> <tr> <th>Variable</th> <th>Changed</th> <th>Kept Constant</th> </tr> </thead> <tbody> <tr> <td>Colour of material</td> <td>✓</td> <td></td> </tr> <tr> <td>Thickness of material</td> <td></td> <td>✓</td> </tr> <tr> <td>Time taken for experiment</td> <td></td> <td>✓</td> </tr> <tr> <td>Temperature of surroundings</td> <td></td> <td>✓</td> </tr> </tbody> </table>	Variable	Changed	Kept Constant	Colour of material	✓		Thickness of material		✓	Time taken for experiment		✓	Temperature of surroundings		✓
Variable	Changed	Kept Constant														
Colour of material	✓															
Thickness of material		✓														
Time taken for experiment		✓														
Temperature of surroundings		✓														
(b)	<p>Choice: Colour C</p> <p>Data: The temperature of air in the cup covered with colour C increased the least after 4 hours.</p> <p>Explain: Colour C is the poorest conductor of heat. The ice drink in the cup covered with colour C will gain heat from the surroundings slowest.</p>															
(c)	Repeat the experiment at least 3 times and take the average.															
8.																
(a)	Process J is the transfer of pollen grains from the anther to the stigma.															
(b)	Ovule															
(c)	The fleshy fruit will attract animals to eat the fruit. The small seeds are indigestible and will be passed out in the animals' droppings.															
(d)	To reduce overcrowding and competition for space, sunlight, water and mineral salts.															