



Nan Hua Primary School
Primary 5 Science
Term 3 Weighted Assessment 2020

Marks	
Section A:	/10
Section B:	/10
Total:	/20

Name: _____ ()

Class: Primary 5/ _____

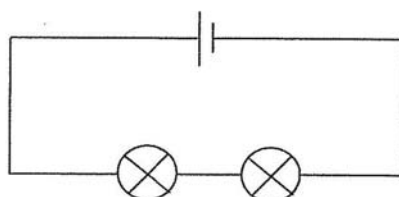
Date: _____

Answer all questions.

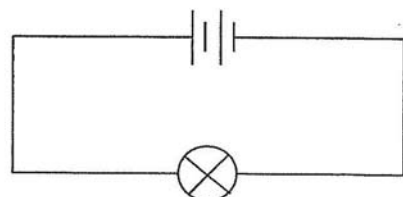
Section A: (5 x 2 marks = 10 marks)

For each question from 1 to 5, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write your answer in the brackets provided.

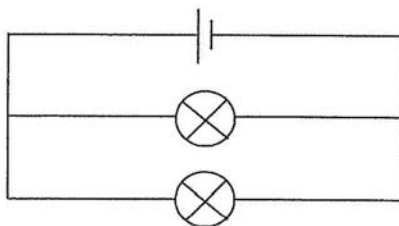
- 1 Jaslyn set up four electrical circuits, W, X, Y and Z. The bulbs and batteries used were identical, and they were all in working condition.



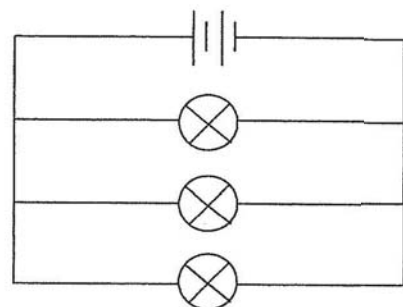
Circuit W



Circuit X



Circuit Y



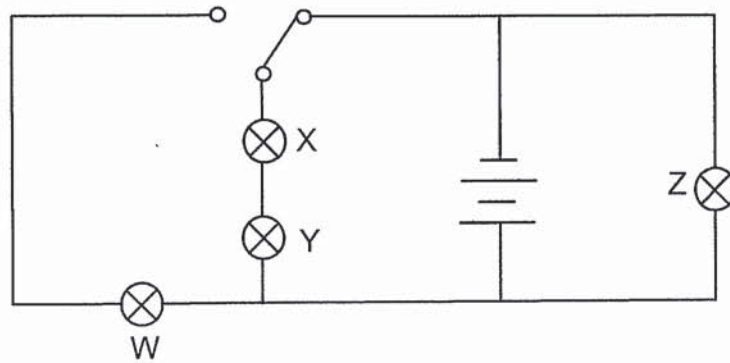
Circuit Z

Which circuit will the bulb(s) be the least brightly lit?

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

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2 The diagram below shows an electric circuit.

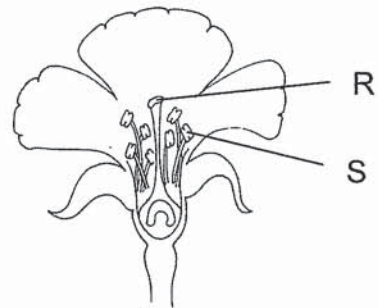
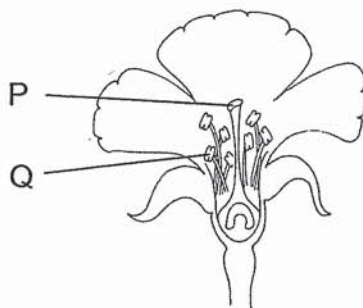


When the switch is at the current position, which bulb(s) will be the brightest?

- (1) Z only
- (2) X and Y only
- (3) X, Y and Z only
- (4) W, X, Y and Z

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3 The diagram below shows two flowers from the same plant.



Pollination between these two flowers occurs when pollen grains are transferred from

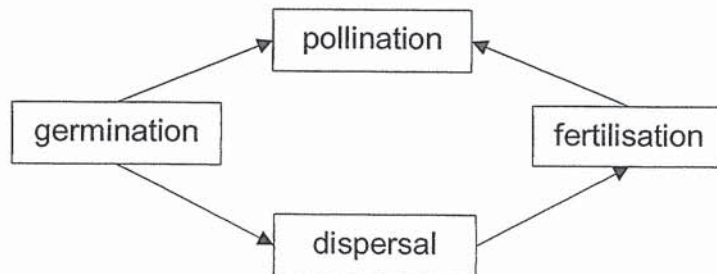
_____.

- (1) P to R
- (2) P to S
- (3) Q to R
- (4) Q to S

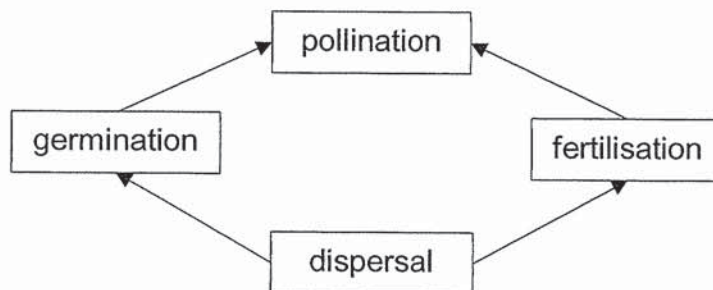
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- 4 Which one of the following shows the correct sequence in the reproduction of a flowering plant?

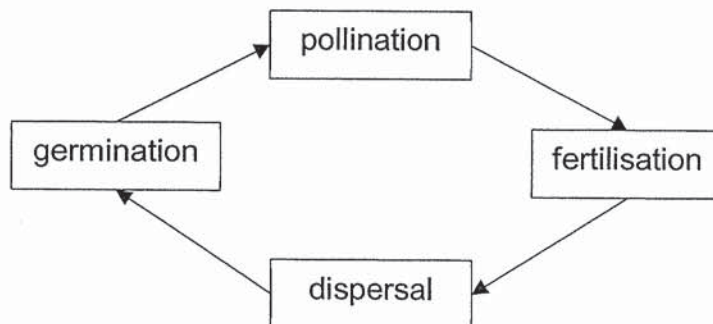
(1)



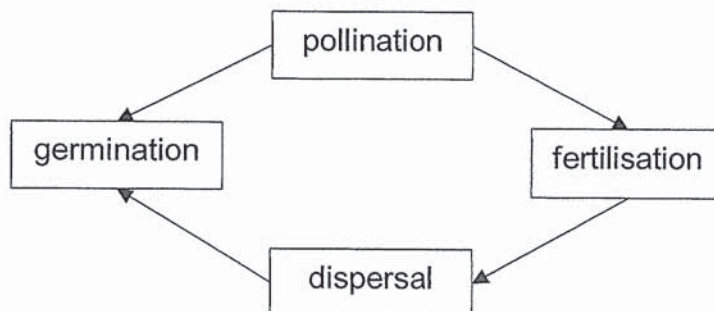
(2)



(3)

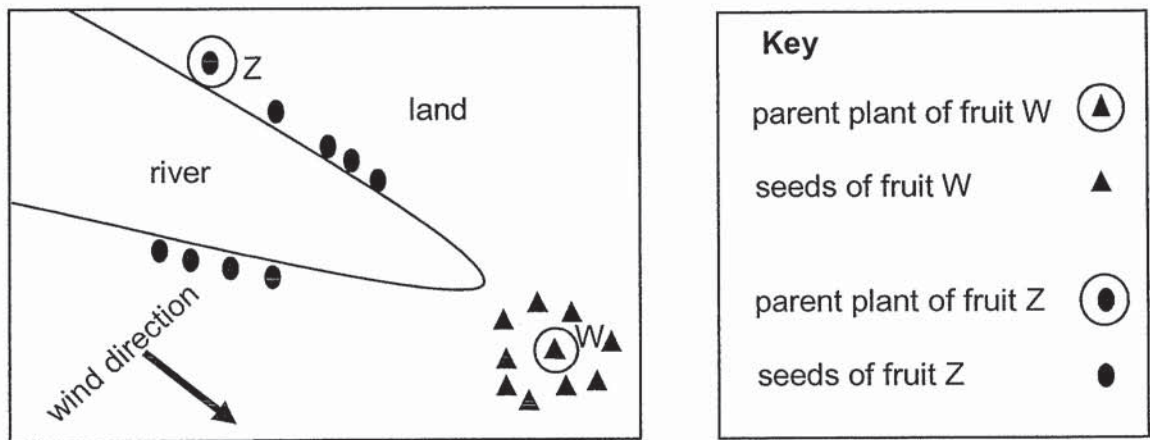


(4)



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- 5 The diagram below shows how the seeds of fruit W and Z are dispersed from their parent plants.



Which of the following shows the dispersal methods for seeds of fruit W and Z?

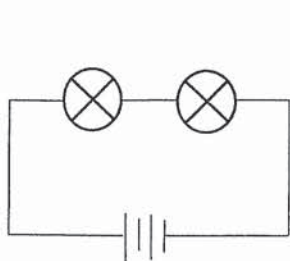
	W	Z
(1)	animal dispersal	wind dispersal
(2)	animal dispersal	water dispersal
(3)	splitting action	wind dispersal
(4)	splitting action	water dispersal

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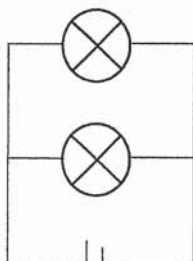
Section B: Structured questions (10m)

For questions 6 to 8, write your answers in the space provided. The number of marks available is shown in brackets [] at the end of each question or part question.

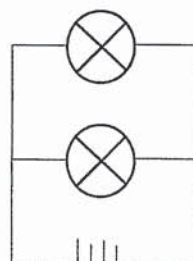
- 6 Study the three circuit diagrams shown below. The batteries and bulbs used in the circuits are similar.



Circuit A



Circuit B



Circuit C

- (a) (i) Which circuit, B or C, has bulbs that is as bright as those in circuit A? [1]

- (ii) Gopal wants to find out if the arrangement of bulbs affect the brightness of the bulbs.

Which of the two circuits should he choose? Explain your answer. [1]

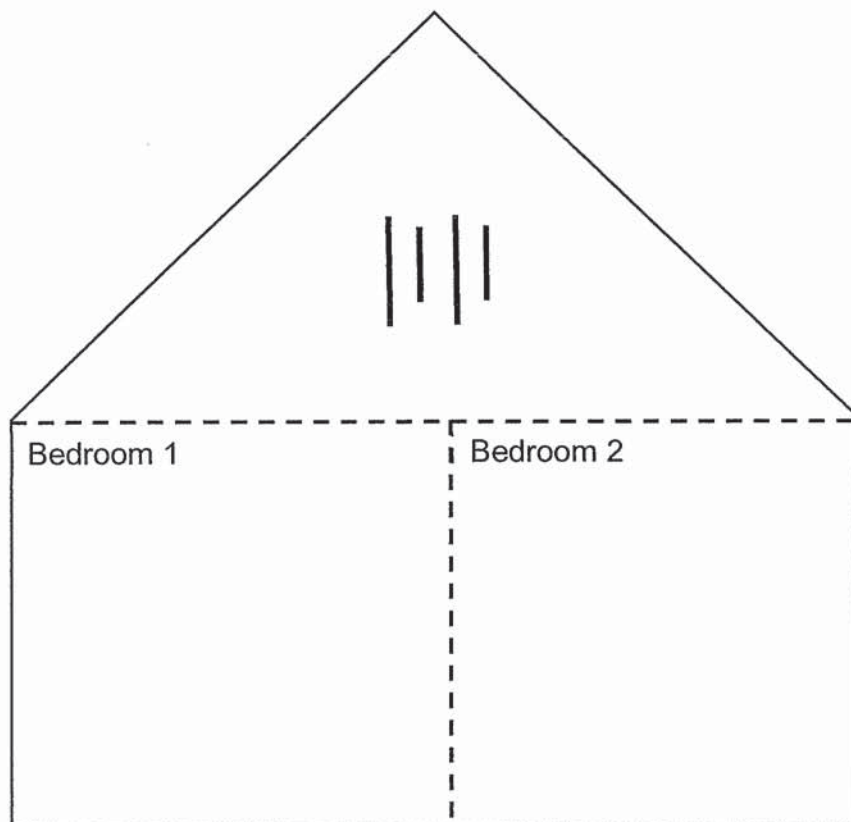
Score	2
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- 6 (b) Janice has two bedrooms in her toy doll house. She wants to light up the two bedrooms in her doll house. Each bedroom needs a bulb to light up.

She has the following materials:

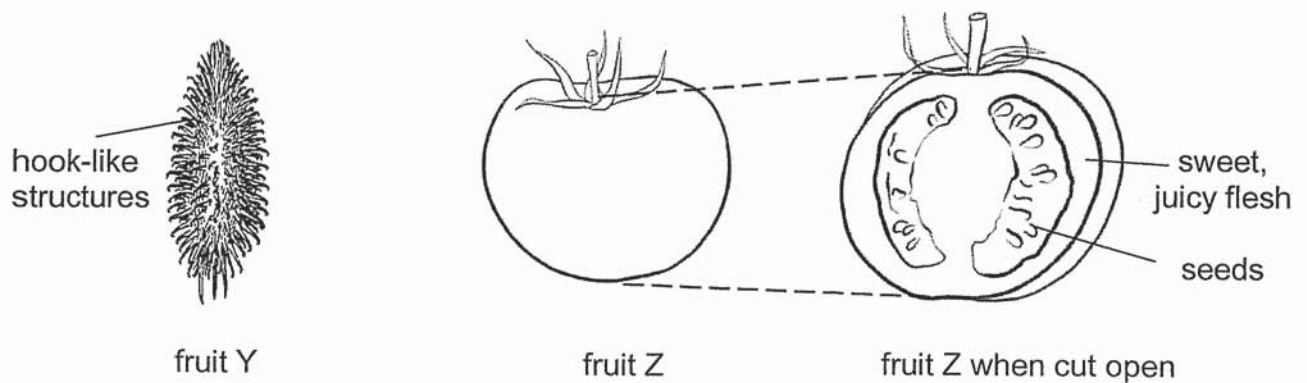
- wires
- two light bulbs
- two switches

Using symbols, draw a circuit diagram to show how the bulb in each room can be switched on or off one at a time without affecting the bulb in the other bedroom. Two batteries have been drawn for you below. [2]



Score	2
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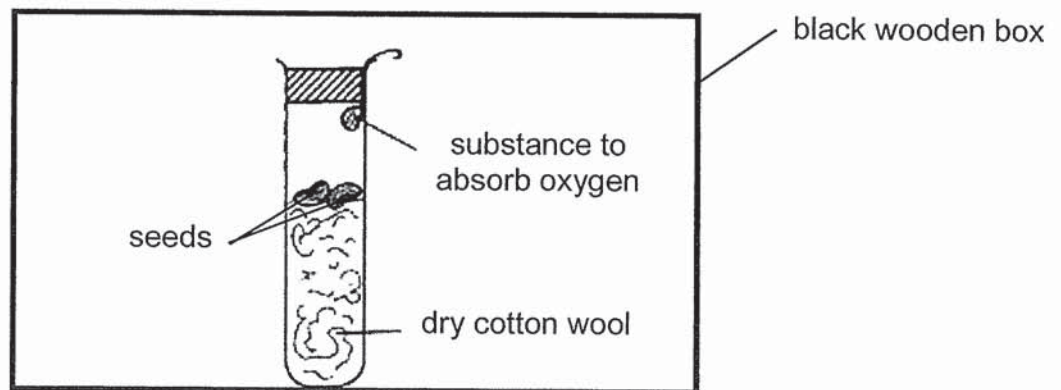
- 7 The diagram below shows the fruits of two different plants.



- (a) State one similarity in the way the two plants disperse their seeds. [1]

- (b) Explain how the characteristic of fruit Y shown above helps in its seed dispersal. [1]

- (c) Jane wanted to grow some seeds. She placed the seeds in a set-up at room temperature as shown below.

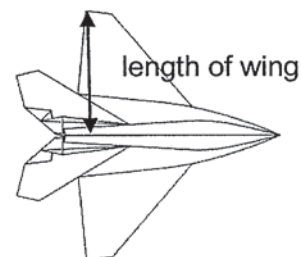


After two weeks, none of the seeds germinated. What factors in the set up does she need to change in order for the seeds to germinate? Explain your answer. [1]

Score	
	3

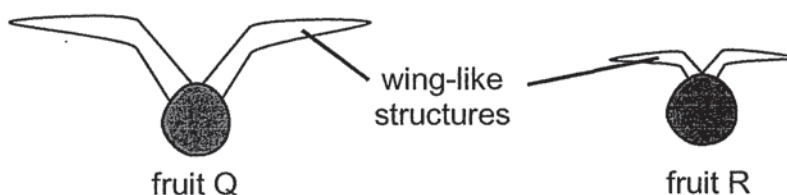
- 8 Jason conducted an experiment to find out how the length of the wings of the paper aeroplane affects the time taken for it to reach the ground. He dropped four paper aeroplanes with different lengths of wings from the same height. He recorded his measurements in the table below.

Paper aeroplane	Length of wing (cm)	Time taken to reach the ground (s)
A	10	14
B	7	10
C	6	8
D	4	6



- (a) Based on the results, what is the relationship between the length of the wings of a paper aeroplane and the time taken for the paper aeroplane to reach the ground? [1]

Jason found two similar fruits from the same plant, fruit Q and fruit R, with wing-like structures of different lengths as shown below.



- (b) Based on the results above, which fruit will most likely be dispersed further away from the parent plant? Explain your answer. [1]

- (c) Give a reason why the seeds of fruit Q and R need to be dispersed further away from the parent plant. [1]

End of paper
8

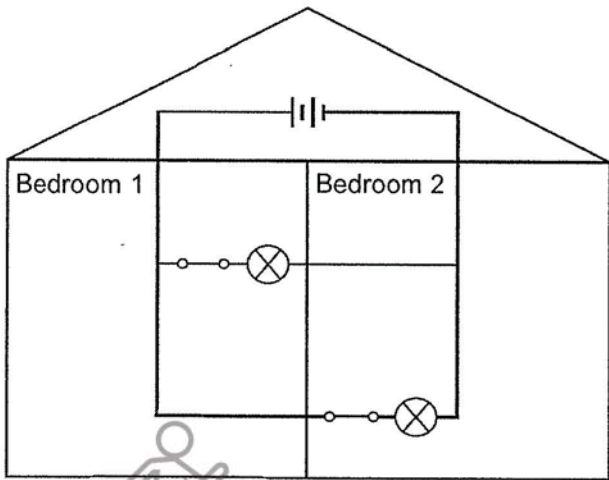
Score	
	3

NHPS P5 Science Weighted Assessment 3 ANSWER KEY

Section A (5 x 2 = 10 marks)

(1)	1
(2)	1
(3)	3
(4)	3
(5)	4

Section B (10 marks)

Qn	
6ai	B
aii	A and C. The only changed variable is the arrangement of light bulbs (different) but the rest of the variables - the number of bulbs and the number of batteries are kept the same/ constant.
6b	
7a	Both are dispersed by animals.
b	It has hook-like structures that helps to attach onto body/hair of animals.
c	She needs to remove the substance that absorb oxygen and add water to the cotton wool as both conditions are needed for seed germination.
8a.	As the length of the wings (of a paper aeroplane) decreases/increases, the time taken for (the paper aeroplane) to reach the ground also decreases/increases.
b	Fruit Q. Fruit Q's wing-like structures are longer than Fruit R's wing-like structures. This helps the seed to float in the air longer / stay in the air longer.
c	Seeds need to disperse further away from its parent plant to prevent overcrowding/ reduce competition for nutrients, sunlight, water and space.

1
END.