Rosyth School
Weighted Assessment One for 2020 (WA1)
SCIENCE
Primary 4

Name: _____ Total Marks: /40

Class: Primary 4 _____ Register No. _____

Duration: 45 min

Date: 8 July 2020 Parent's Signature: _____

Instructions to Pupils:

1. Do not turn this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. For questions 1 to 11, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.

	Maximum Marks	Marks Obtained
Q1-Q11	22 marks	
Q12-Q16	18 marks	
Total	40 marks	

* This booklet consists of 16 printed pages (including cover page).

For each question from 1 to 11, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the correct oval (1, 2, 3 or 4) on the Optical Answer Sheet. [22 marks]

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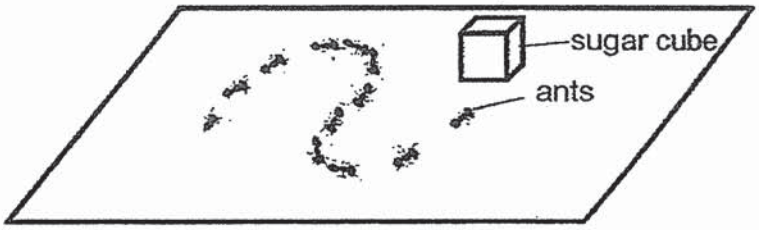
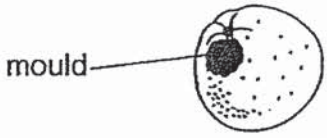
1. A line of ants was crawling on a table towards a piece of sugar cube.



This shows that the ants are living things because they can _____.

(1) grow
(2) breathe
(3) respond
(4) reproduce

2. Athena left a fruit on a table. Three days later, she observed that mould had formed on some parts of the fruit.

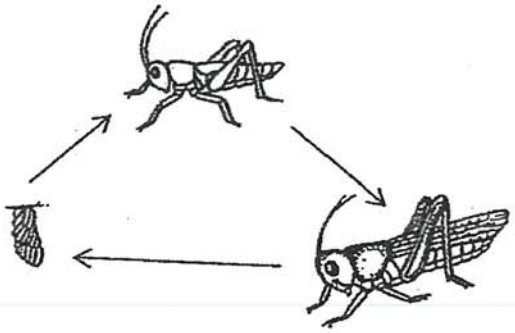


How could Athena have stored the fruit to prevent mould from growing quickly?

A : Keep the fruit in a basket.
B : Keep the fruit in a cupboard.
C : Keep the fruit in the refrigerator.
D : Keep the fruit in an airtight container.

(1) A and B only
(2) A and C only
(3) B and D only
(4) C and D only

3. The diagram below shows the life cycle of animal Z.



Which one of the following animals has the same number of stages in its life cycle as animal Z?

(1) butterfly
(2) mosquito
(3) cockroach
(4) mealworm beetle

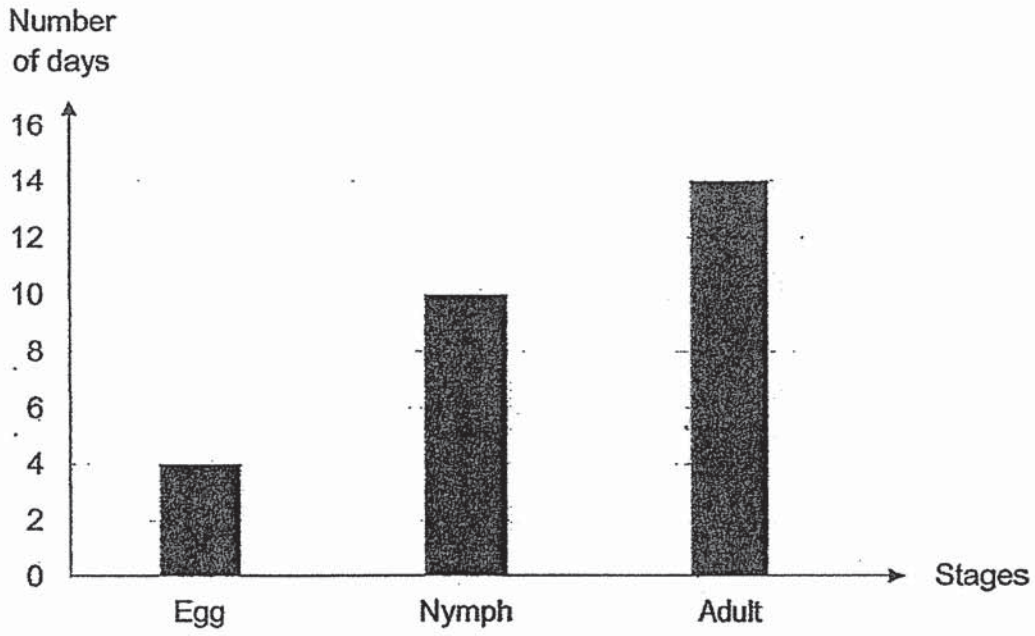
4. The observation of two animals, X and Y, are recorded in the table below.

Observation	Animal X	Animal Y
There are 3 stages in its life cycle.		✓
Its eggs are laid in water.	✓	
The young resembles the adult.		✓

Based on the observations in the table above, what could animals, X and Y, be?

	Animal X	Animal Y
(1)	mosquito	grasshopper
(2)	butterfly	frog
(3)	mosquito	butterfly
(4)	frog	butterfly

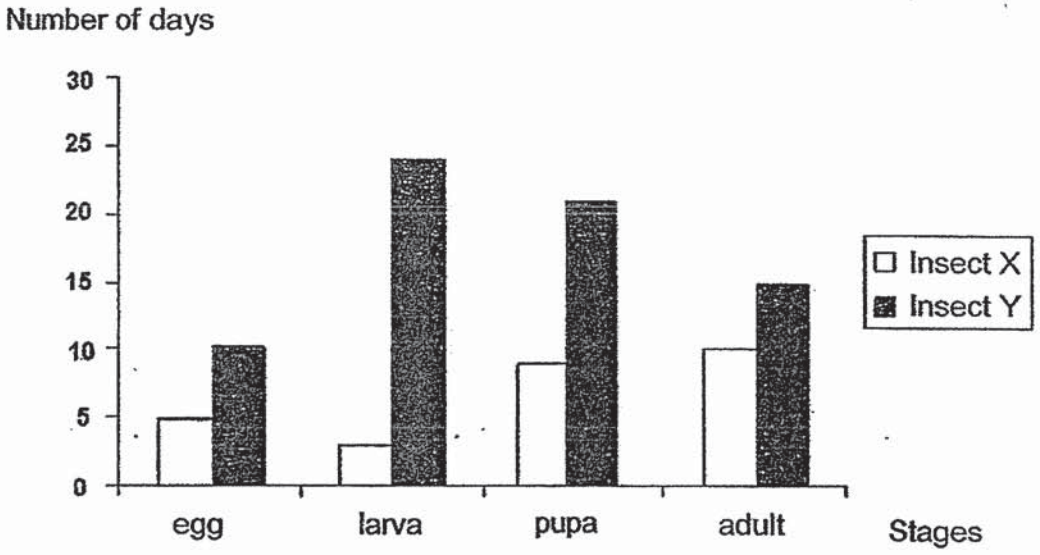
5. The graph below shows the number of days for each stage of the life cycle of animal J.



How many days in its life cycle does animal J take to become an adult after the egg is laid?

(1) 4 days
(2) 10 days
(3) 14 days
(4) 28 days

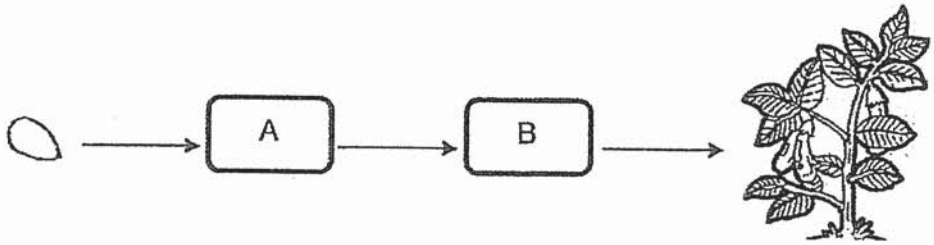
6. The bar graph below shows the number of days insects, X and Y, spend at each stage of their life cycle.



Based on the graph, which one of the following statements is true about insects X and Y?

(1) Both insects live in the water.
(2) Both insects have a 3-stage life cycle.
(3) Young of Insect X becomes an adult faster than Insect Y.
(4) Both insects spend more time as a larva than as a pupa.

7. . The diagram below shows the stages of a plant. Stages A and B are missing.



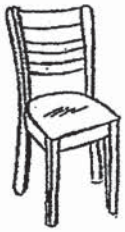
Which of the following correctly describes the missing stages?

	A	B
(1)	Seed with root growing only	Seed with shoot growing only
(2)	Seed with root growing only	Seed with root and shoot growing
(3)	Seed with shoot growing only	Seed with root growing only
(4)	Seed with root and shoot growing	Seed with shoot growing only

8. Which one of the following is a source of light?

(1) a bag

(2) a chair

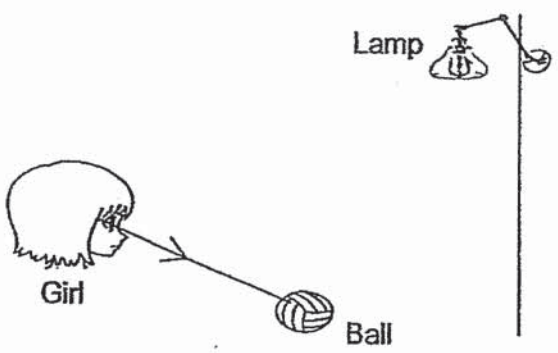


(3) a fire

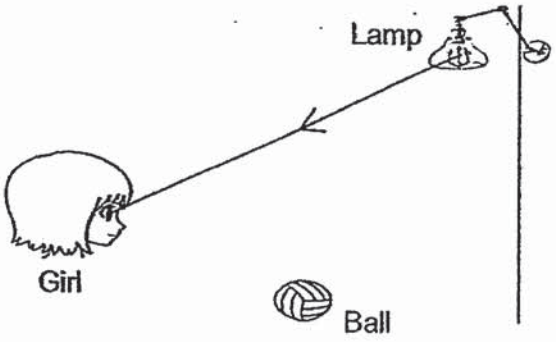
(4) a marble

9. Which one of the following correctly shows the path of light of how a girl can see a ball in the room?

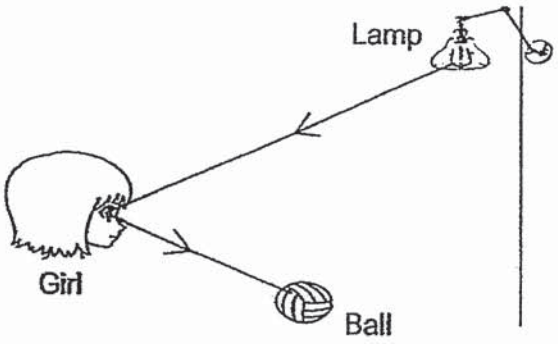
(1)



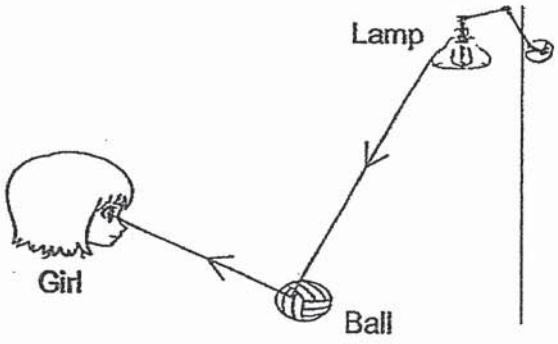
(2)



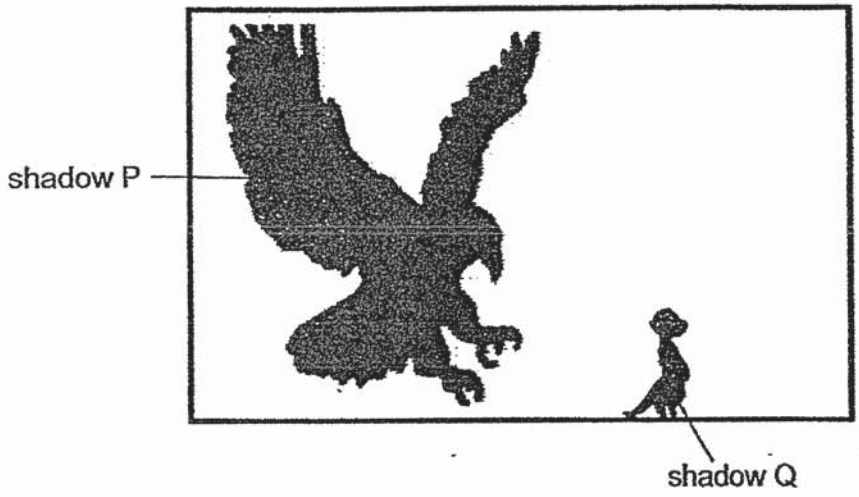
(3)



(4)



10. Jessie watched a shadow performance as shown below.

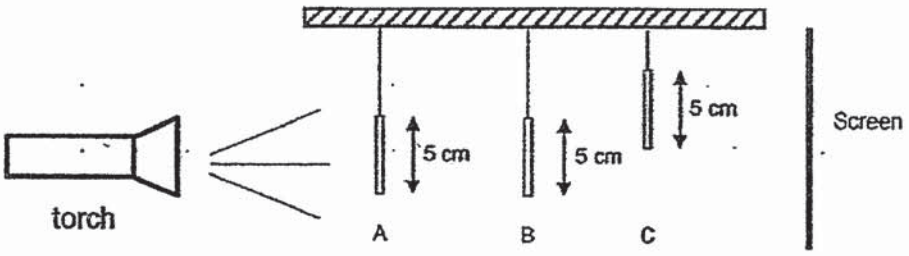


Shadow P was formed by object P while shadow Q was formed by object Q. Both objects were of the same height.

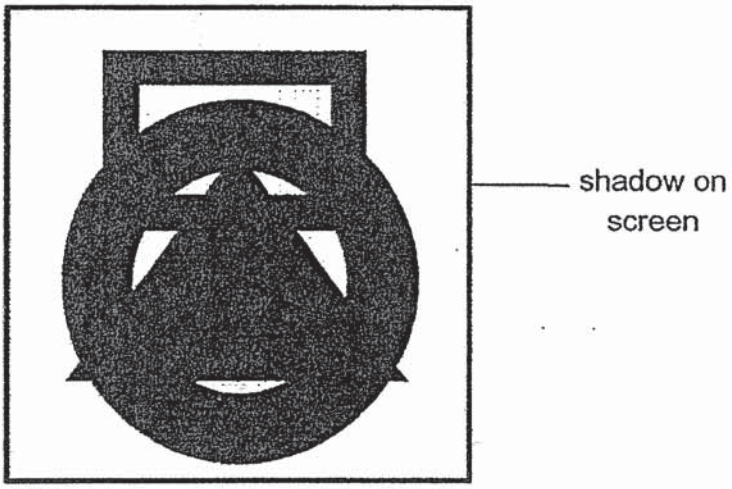
Which one of the following statements correctly explained why shadow P was larger than shadow Q?

(1) Object P blocked more light than object Q.
(2) Object P was closer to the screen than object Q.
(3) Objects P and Q did not allow light to pass through
(4) Object P was closer to the light source than object Q.

11. Julian placed three shapes, X, Y and Z, at different distances in front of a torch as shown below.



The diagram below shows the shadow that was seen on the screen.

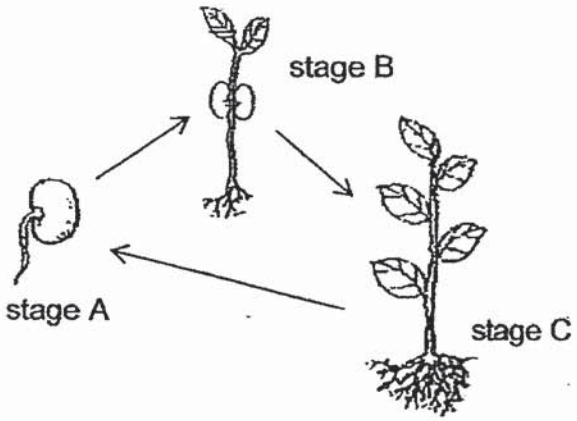


Which one of the following best represents the position, A, B and C, of the shapes, X, Y and Z?

	shape X	shape Y	shape Z
(1)	A	B	C
(2)	B	A	C
(3)	B	C	A
(4)	C	A	B

For questions 12 to 16, write your answers in this booklet. [18 marks]

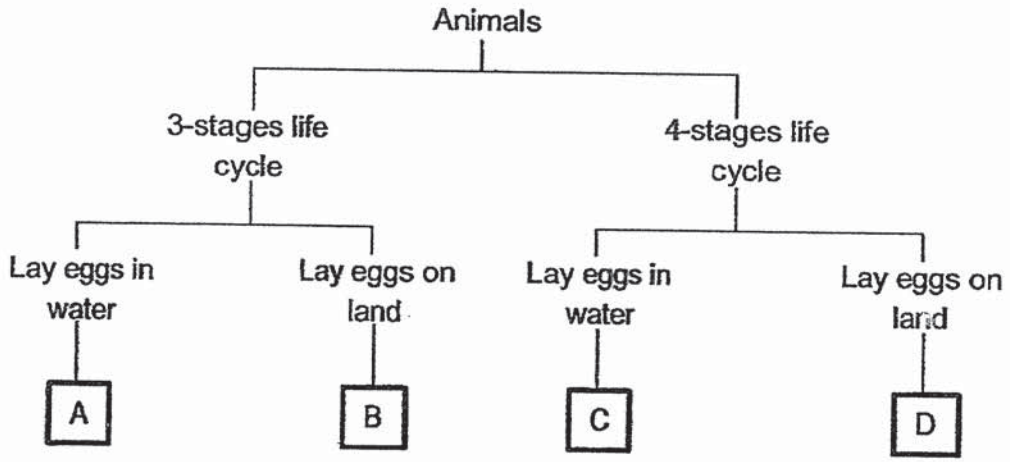
12. The diagram below shows the life cycle of plant M.



(a) At which stage(s) can plant M make its own food? Explain your answer. [2]

(b) John said that plant M can reproduce at stage B. Do you agree? Support your answer. [1]

13. Study the classification chart below.



(a) State one difference between animals B and D. [1]

_____

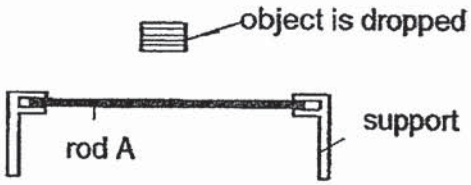
_____

(b) Which of the letters (A, B, C or D) represents the following animals? [2]

(i) A chicken : _____

(ii) A frog : _____

14. Mark had the following set-up for his experiment.



He counted the number of objects required to break rod A and repeated the experiment with rod B.

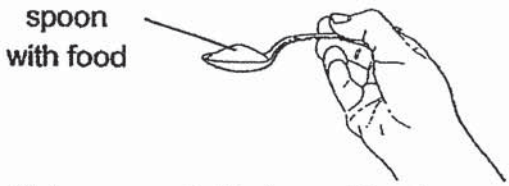
(a) What property of material was Mark testing? [1]

_____

Mark recorded his results as shown below.

	Rod A	Rod B
Number of objects required to break the rod	7	1 (breaks immediately)

The diagram below shows a spoon and its use.



(b) Which rod, A or B, is more suitable for making the spoon? Explain your answer. [2]

_____

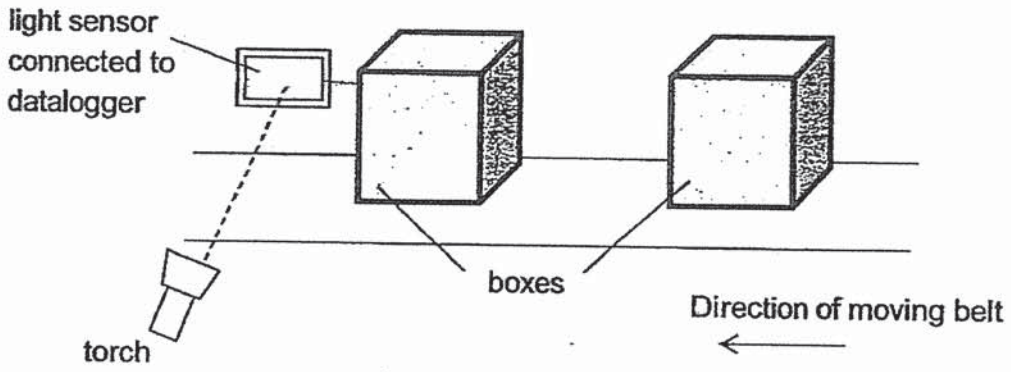
_____

_____

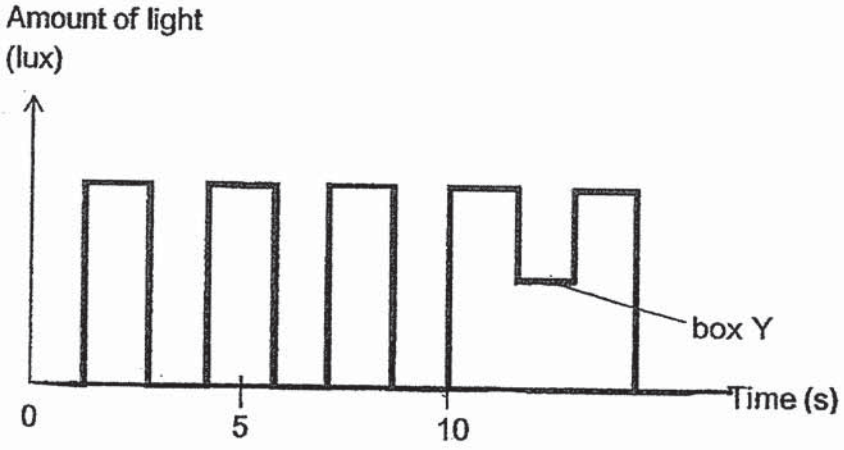
(c) State another property of material that the spoon should have in order to use it to hold liquid. [1]

_____

15. The set-up below is used to count the number of boxes moving on a belt. The boxes are similar in shape and size.



As the boxes on the belt move past the light sensor, there will be a drop in the readings. The readings are recorded in the line graph below.



(a) Based on the line graph, how many boxes have passed the light sensor in the first 10 seconds? [1]

_____ boxes

Question 15 is continued on page 15

(b) State a way to count more boxes in 10 seconds without changing the speed of the belt. [1]

_____

_____

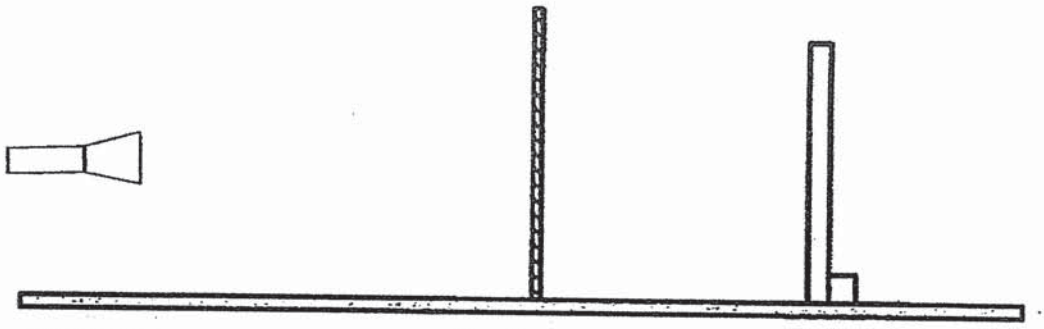
(c) Based on the line graph, explain the result for box Y compared to the other boxes. [2]

_____

_____

_____

16. Marcus decided to test if different materials affected the amount of light passing through. He placed each material, X, Y and Z, in between the light source and the screen as shown below.



The results are as shown in the table below.

Material	Observation on screen
X	No light patch
Y	Bright patch of light
Z	Dim patch of light

(a) State the property of light observed in the above set-up. [1]

(b) The three materials that he used were clear glass, aluminium foil and coloured plastic. Based on the results obtained, identify the materials that Marcus had used. [3]

Material	Type of material (clear glass / aluminium foil / coloured plastic)
X	
Y	
Z	

End of Paper

ANSWER KEY

YEAR : 2020
LEVEL : PRIMARY 4
SCHOOL : ROSYTH
SUBJECT : SCIENCE
TERM : SA1

Q1	3	Q2	4	Q3	3	Q4	1
Q5	3	Q6	3	Q7	2	Q8	3
Q9	4	Q10	4	Q11	2		

Q12	a) Stage C and B, it food from the leaves. b) No , it does not have fruits.
Q13	a) B have a 3-stage life cycle while C have 4-stage life cycle. b) A chicken : B A frog : A
Q14	a) Strength b) C : Rod A E : Rod A could hold more objects without breaking than Rod B . R : Like Rod A , the spoon needs to be strong enough to hold food. c) Waterproof
Q15	a) 4 boxes b) Place the boxes closer to each other. c) The amount of lux was higher for box Y than the other boxes Box X is made of a translucent material.
Q16	a) Light travel in a straight line b) X : aluminium foil Y : clear glass Z : coloured plastic