Anglo-Chinese School (Junior)

BITE-SIZED ASSESSMENT 1 (2021)

PRIMARY 4

SCIENCE

Friday

Name: _____

INSTRU

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

2 Follow all instructions carefully.

3 There are 9 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	20	

This question paper consists of 10 printed pages (inclusive of cover page).

Answer questions 1 to 9. The number of marks available is shown in the brackets [ ] at the end of each question. (20 marks)

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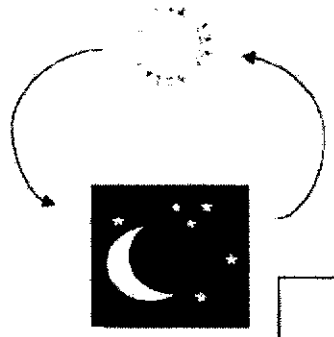
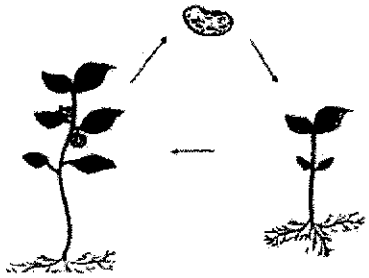
1. Which of the following is **not** a cycle? Put a tick(✓) in the correct box. [1]

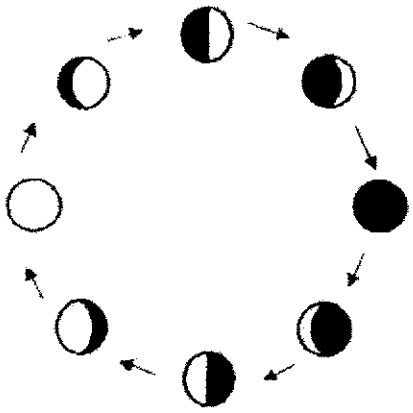
Day and Night



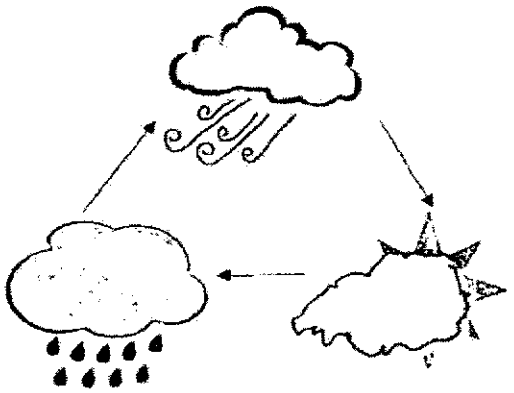
Life Cycle of a Plant



Phases of the Moon



Weather



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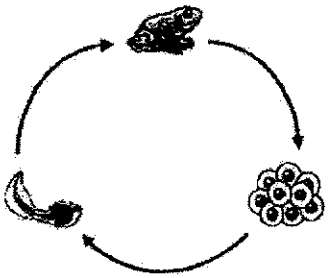
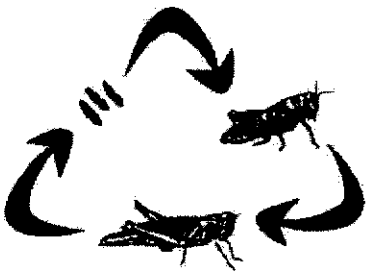
SCORE 1

2. Study the life cycles of a frog and a grasshopper.



Life Cycle of a Frog



Life Cycle of a Grasshopper

a) State two differences between their life cycles. [2]

Difference 1: _____

_____

Difference 2: _____

_____

b) State a similarity between their life cycles. [1]

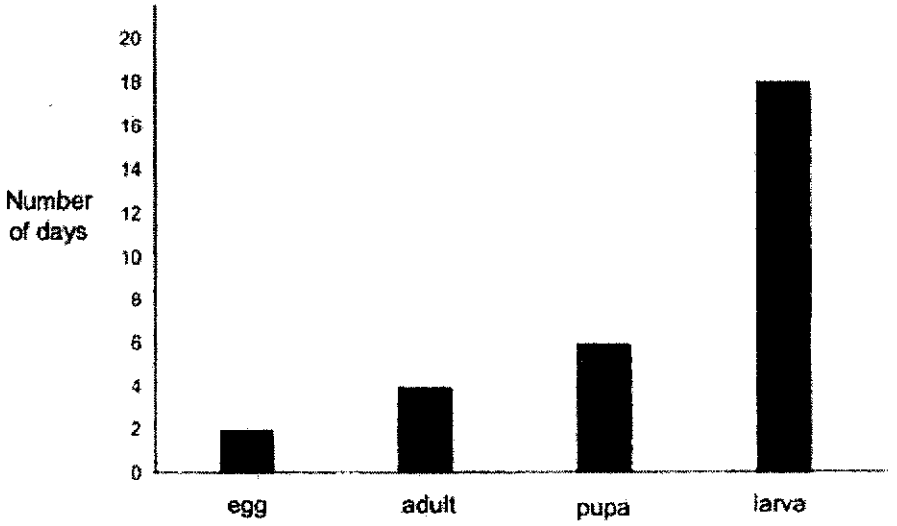
_____

_____

Go on to the next page

SCORE	3

3. Annie studied the life cycle of insect X. She recorded the number of days for each stage of its life cycle in the graph shown. However, she did not present the stages of the life cycle in the correct order.



a) Based on Annie's results, how many days does it take for insect X to become an adult **after** the egg has hatched? [1]

_____

b) Insect X has wings. It spends certain stages of its life cycle in the water.

Name the stage(s) spent in water. [1]

_____

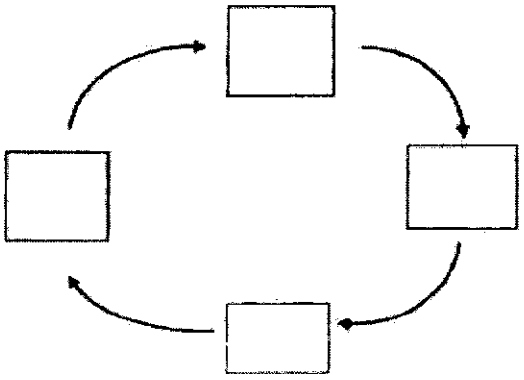
Go on to the next page

SCORE 2

4. Ahmad observed some butterflies in the garden during the different stages, A, B, C and D, of its life cycle over a period of time and recorded his observations. Each box represents a stage in the life cycle of a butterfly.

A:	B:
• Found on the surface of a leaf	• Does not move and continues developing in the case
C:	**D:**
• Has wings	• Moults several times

a) Fill in the boxes with A, B, C and D, in the correct order of the stages in the life cycle of a butterfly. [1]



b) Name the stage that the butterfly is most harmful to farmers. Explain why. [1]

_____

_____

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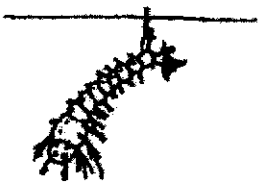
SCORE	2

5. The diagram shows two stages, P and Q, in the life cycle of a mosquito. The mosquito at these two stages are found near the surface of the water.



Stage P

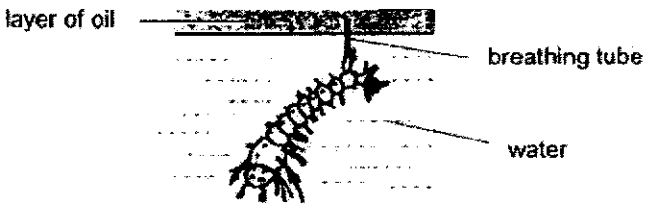
Stage Q

a) Name stages P and Q. [1]

Stage P: _____

Stage Q: _____

b) At stage P, the mosquito uses its breathing tube to take in air from the surrounding.



Explain how spraying a layer of oil on the water surface prevents mosquitoes from breeding. [1]

_____

_____

Go on to the next page

SCORE	2

6. John wants to find out which type of seed, A, B and C, germinates first.

a) Tick (✓) the variable(s) which should be kept the same for John to test the aim of his experiment. [1]

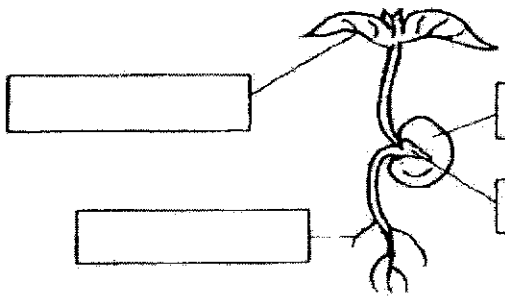
Variables	Tick (✓)
Type of seed	
Amount of water	
Location of the experiment	
Number of seeds in each beaker	

b) John planted seeds A, B and C in identical pots of soil. He watered them with 100 ml of water daily. He measured and recorded the height of each plant daily in the table shown.

Type of Seed	Height of plant (cm)				
	Day 1	Day 2	Day 3	Day 4	Day 5
A	0	1	4	6	10
B	1	3	5	7	10
C	0	1	3	8	9

Which seed germinated first? _____ [½]

c) Where does the young plant get its food from? Tick(✓) the correct box. [½]



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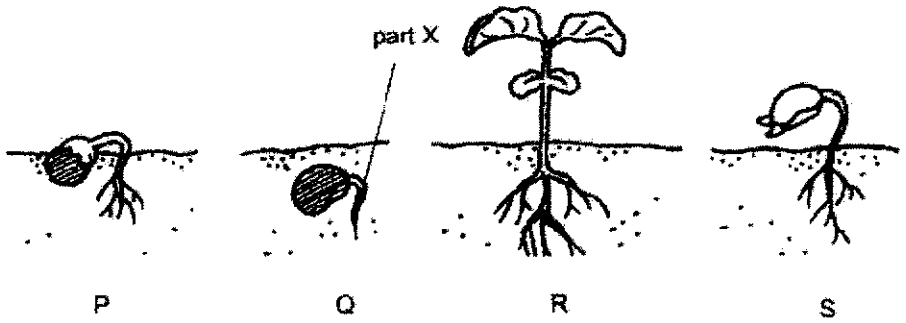
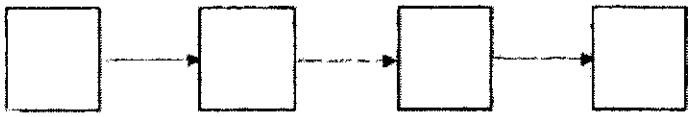
SCORE 2

7. The pictures show the growth of a seed into a young plant.



a) Arrange the stages of growth of the seed in the correct sequence by writing the letters P, Q, R and S in the boxes. [1]



b) Name part X and state its function. [1]

Name of part X: _____

Function of part X: _____

_____

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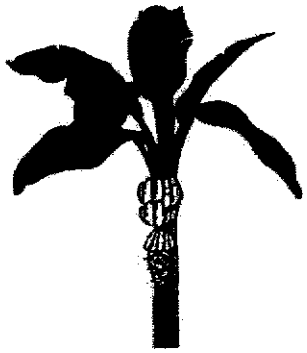
SCORE	2

c) The diagram shows a banana plant.



At which stage of its life cycle is the plant at? Explain your answer. [1]

_____

_____

8. The following passage describes the life cycle of a cockroach. Fill in the blanks with the correct words. [2]

The adult cockroach lays its eggs in an egg case. The young of a cockroach is called a

_____ It _____ like the adult cockroach except that it is smaller. It

_____ several times as it grows. At the adult stage, it has wings and is able to

_____ around.

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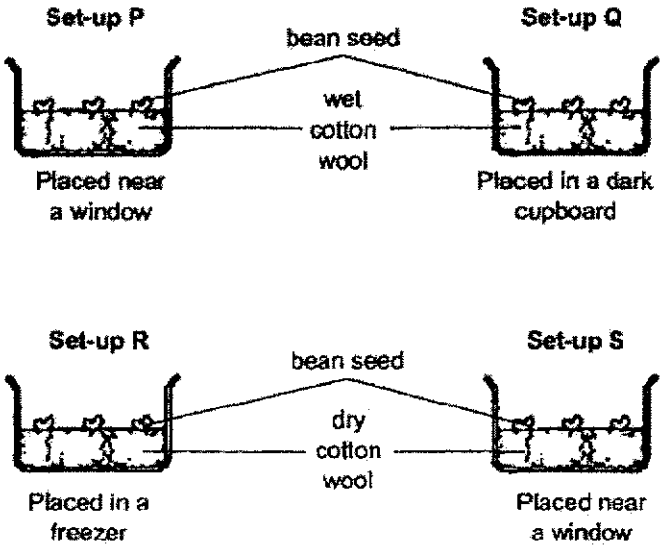
SCORE 3

9. Devi wants to find out if water is needed for germination to take place. She prepares four set-ups as shown.



a) Which two set-ups should she use for her experiment? [1]

_____

b) Devi predicted that the seeds in set-up Q will not germinate. Is her prediction correct? Explain your answer. [1]

_____

_____

c) Devi used set-ups P and Q for another experiment. What is the aim of this experiment? [1]

_____

_____

End of Paper

SCORE	3

SCHOOL : ANGLO-CHINESE SCHOOL (JUNIOR)
LEVEL : PRIMARY 4
SUBJECT : SCIENCE
TERM : BITE-SIZE ASSESSMENT 1

Q1 Weather

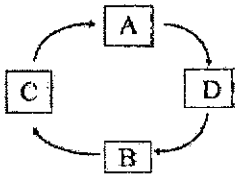
Q2

Difference 1:	The young of the frog do not resemble the adult while the young of a grasshopper resemble the adult.
Difference 2:	The frog spends part of its life cycle in water while the grasshopper spends its life cycle entirely on land.

b) Both have a three stages life cycle.

Q3
a) 24 days
b) Egg, larvae, pupa

Q4



a)
b) The larvae stage. It destroys the farmers crops by eating it.

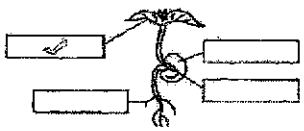
Q5
a) P: Larva
Q: Pupa

b) It blocks the breathing tube of the larva of the mosquito and it is unable to breathe.

Q6

Variables	Tick (✓)
Type of seed	
Amount of water	✓
Location of the experiment	✓
Number of seeds in each beaker	✓

a)
b) Seed B



c)

Q7
a) Q---- P----S----R

	b) X: Root Function of X: Help take in water and mineral salts for the plants c) Adult stage. It bears fruits
Q8	Nymph Looks Moults Fly
Q9	a) Set-up P and Set-up S b) No. The seeds will germinate because they have air, warmth and water c) To find out if light is needed by seeds for germination.