

RIVER VALLEY PRIMARY SCHOOL
2015 Continual Assessment 2
PRIMARY 3

SCIENCE

(BOOKLET A)

Name : _____

Date : 01 / 09 / 2015

Class: P3 _____

Total Time for Booklet A & Booklet B : 1 hr 15 mins

INSTRUCTIONS TO CANDIDATES

1. Write your name, index number and class in the space above.
2. Do not turn over this page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. For Section A, shade your answers for questions 1 to 10 in the Optical Answer Sheet (OAS) provided.
6. For Section B, write your answers for questions 11 to 18 in the space provided in the booklet.
7. The total marks for Booklet A is 20 marks.

Section A (20 marks)

For each question 1 to 10, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Shade the oval (1, 2, 3 or 4) on the Optical Answer Sheet.

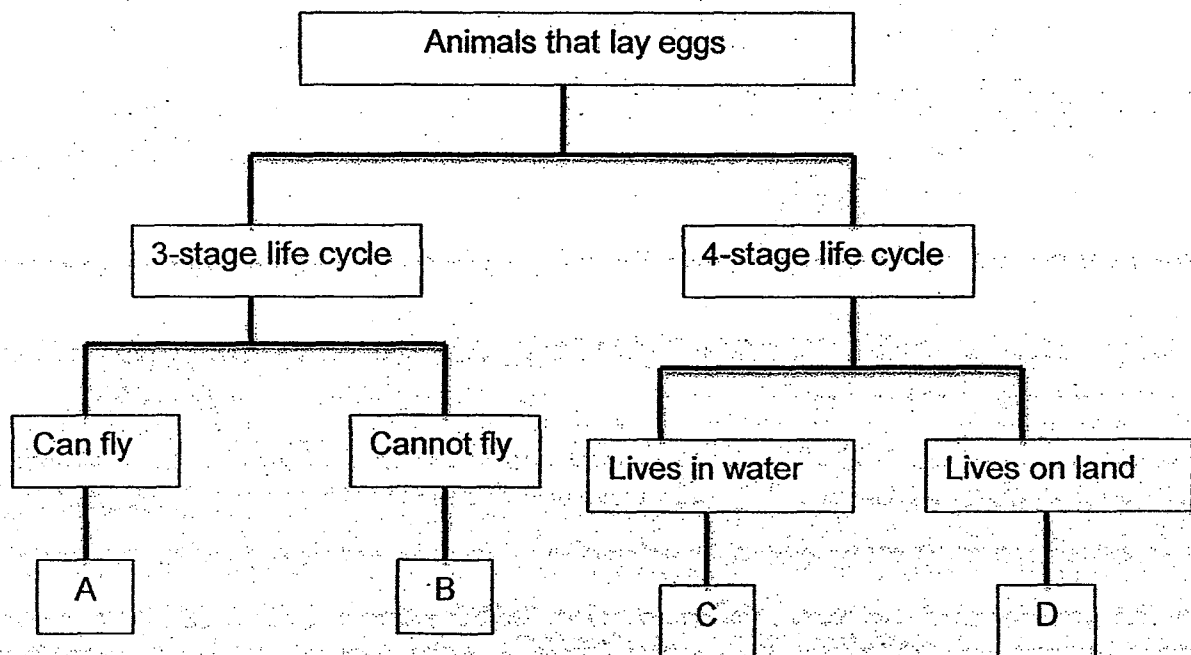
1. Which of the following statements is/are true?

- A: The life cycles of animals show the different stages of their growth.
B: The life cycles of animals ensure the continuation of their own kind.
C: The young of an animal will go through the same life cycle as its parent.

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

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2. Study the classification chart below.

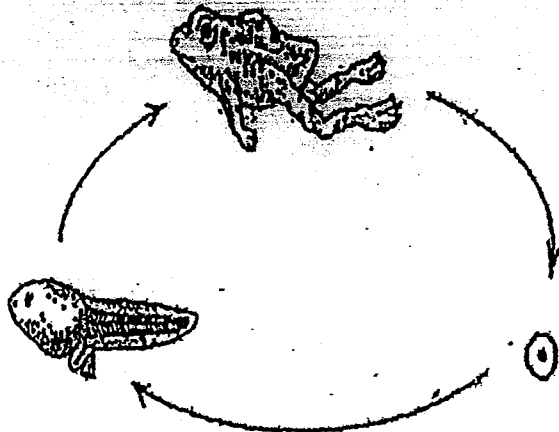


Which of the above animals (A, B, C or D) is likely to be a bird?

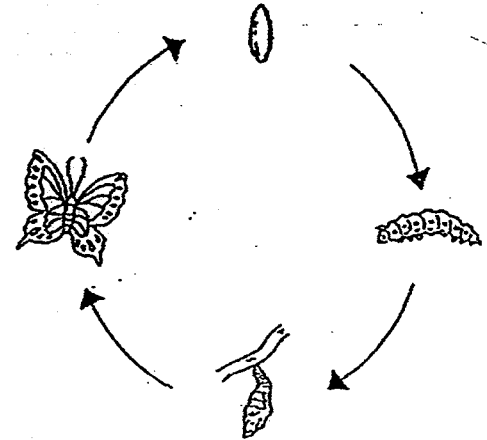
- (1) A and B
(2) B and C
(3) B and D
(4) C and D

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3. The diagrams below show the life cycles of two animals.



Life cycle of Animal X



Life cycle of Animal Y

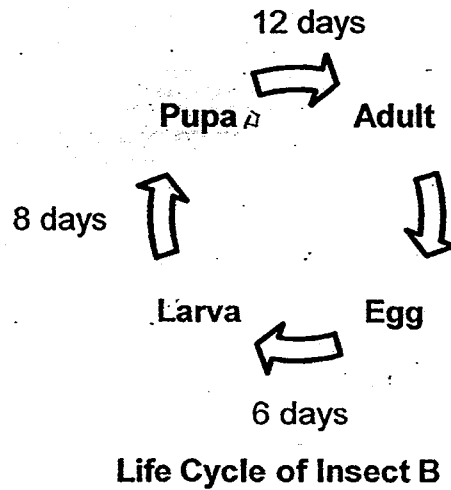
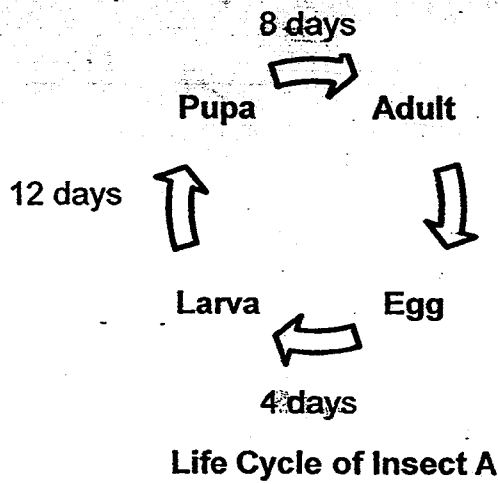
Which of the following statement(s) show(s) similarities between the two life cycles?

- A: Both have 4 stages.
- B: Both their young do not resemble the adult.
- C: Both spend part of their life cycle living in water.

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

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4. The diagrams below shows the life cycles of Insect A and Insect B.

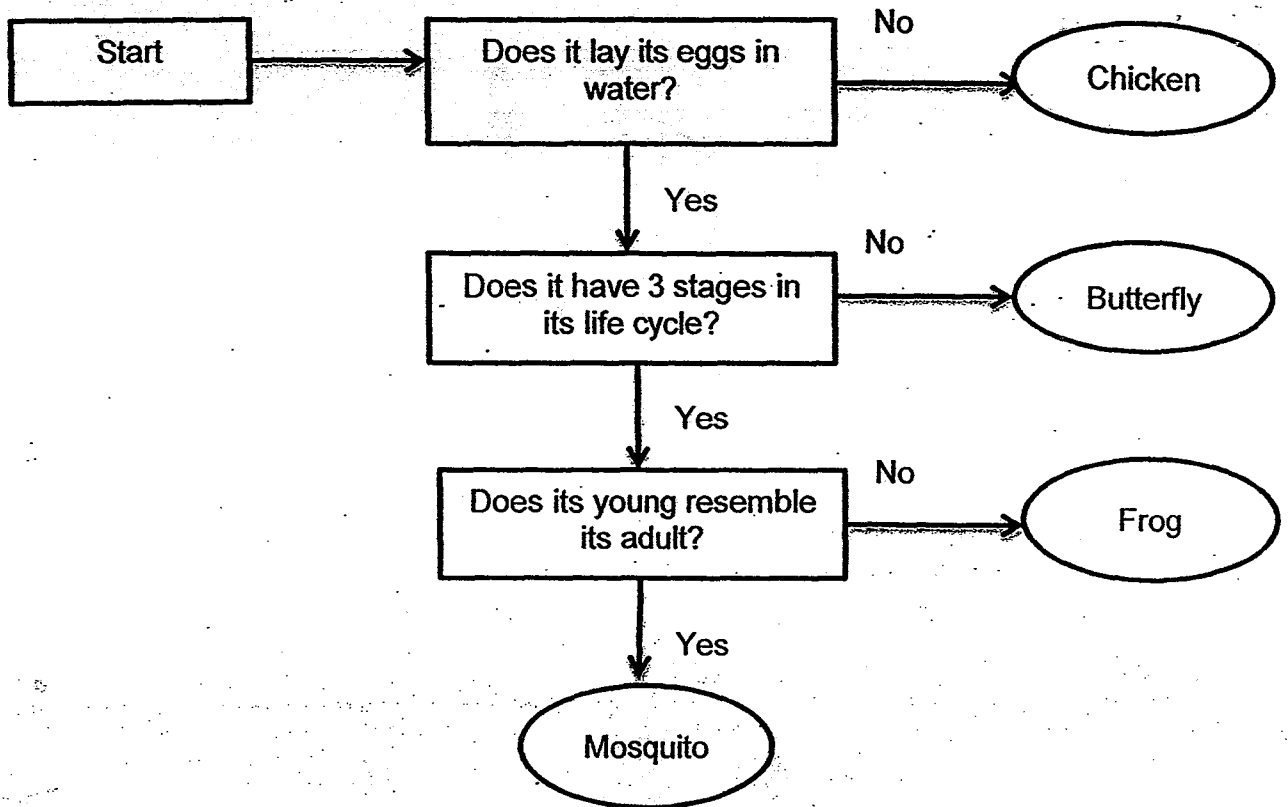


On day 15, which stage would both insects be at?

| | Insect A | Insect B |
|-----|----------|----------|
| (1) | Pupa | Pupa |
| (2) | Larva | Larva |
| (3) | Larva | Pupa |
| (4) | Pupa | Larva |

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5. Hanis drew a flowchart below.

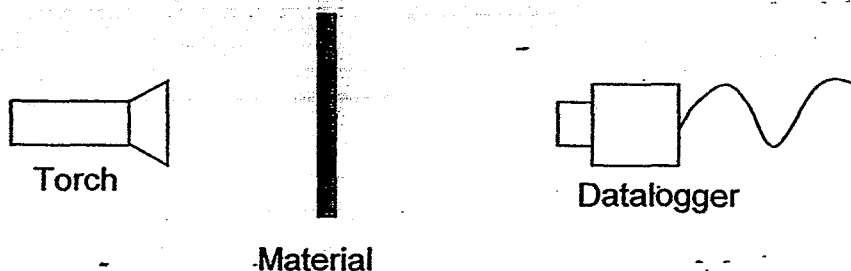


Which of the above animal(s) is / are placed wrongly?

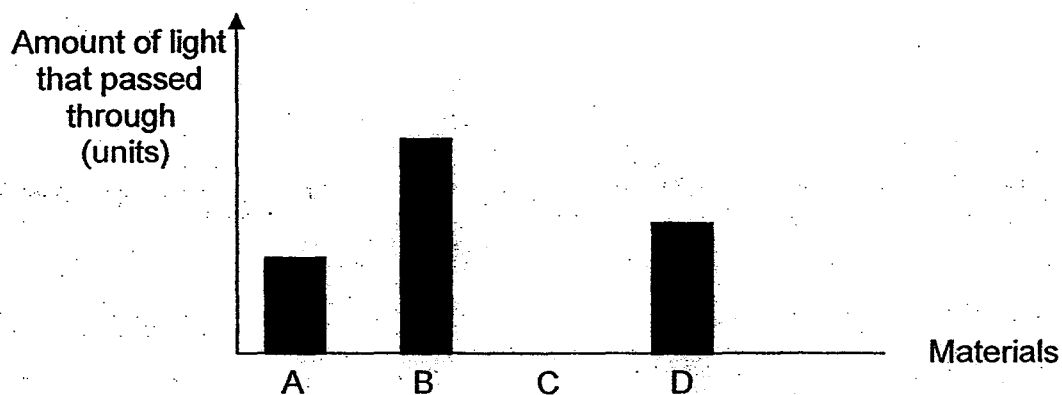
- (1) Mosquito only
- (2) Butterfly and Mosquito only
- (3) Chicken and mosquito only
- (4) Butterfly, frog and mosquito only

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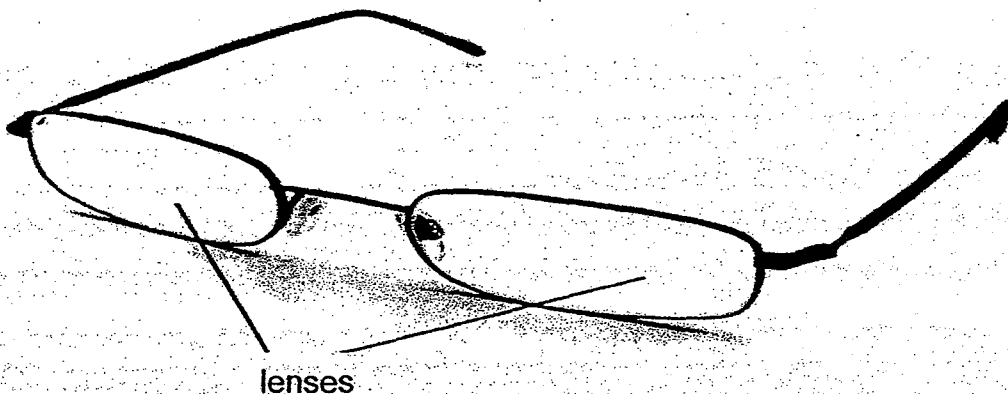
6. Alice used a datalogger to measure the amount of light that can pass through four different materials.



The graph below shows the results of her experiment.

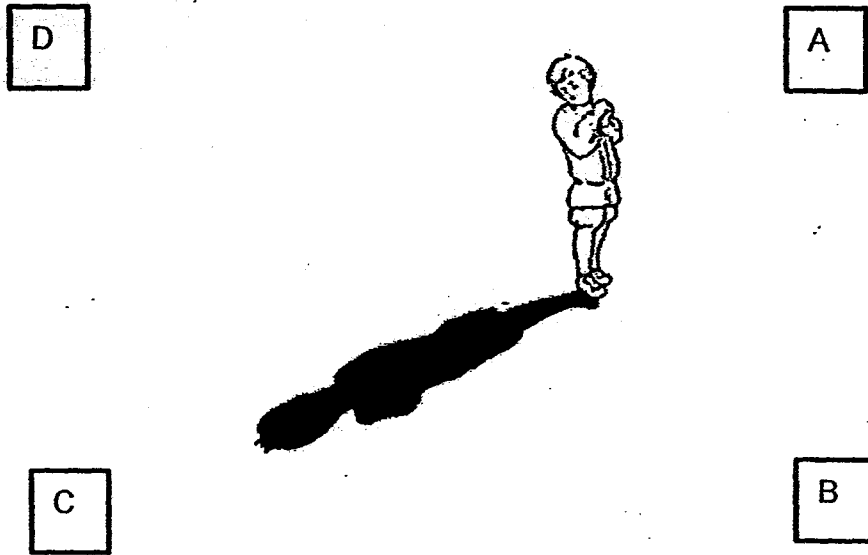


Which material (A, B, C or D) is most suitable to be used to make the lenses of a pair of spectacles?



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

7. A boy is looking at his shadow as shown in the diagram below.

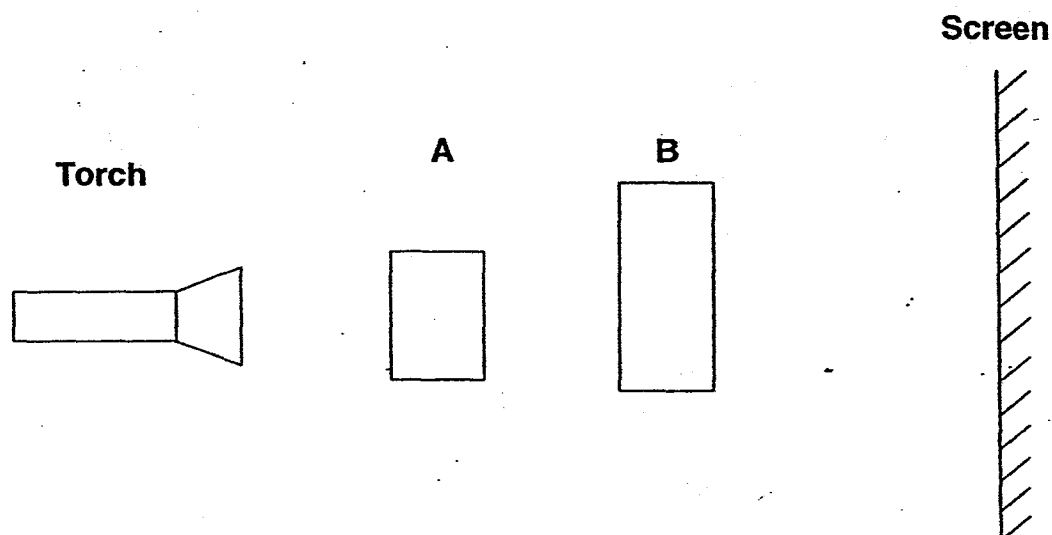


At which position (A, B, C or D) is the sun most probably shining from?

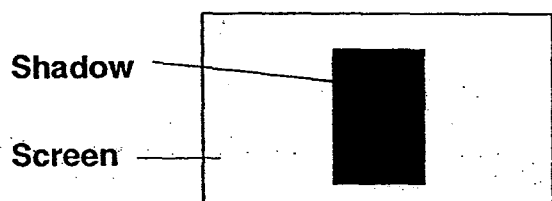
- (1) A
- (2) B
- (3) C
- (4) D

()

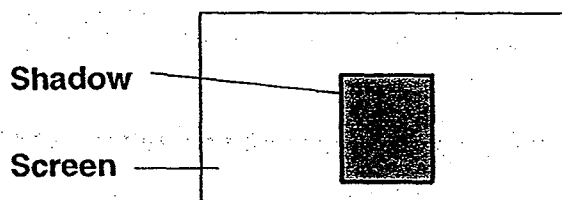
8. Adam shone a torch on objects A and B as shown below.



He observed that a dark shadow was cast on the screen.



He then removed Object B and saw a new, lighter shadow cast on the screen.



What can Adam conclude about the 2 objects he used?

| | Object A | Object B |
|-----|-------------|-------------|
| (1) | Opaque | Opaque |
| (2) | Translucent | Opaque |
| (3) | Opaque | Translucent |
| (4) | Translucent | Translucent |

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9. Raju carried out an experiment as shown below.



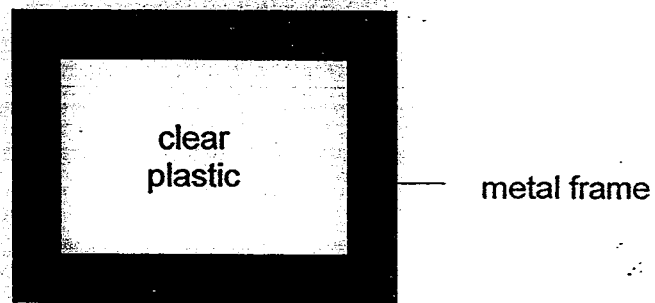
A shadow was formed on the wall. What will happen to the shadow if the torch is moved nearer to the object?

- A : The shadow becomes less blur.
- B : The shadow becomes more blur.
- C : The shadow becomes bigger.
- D : The shadow becomes smaller.

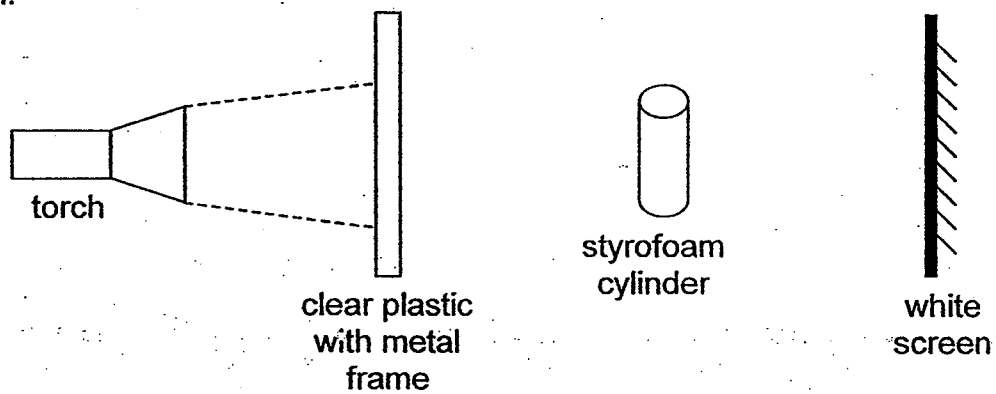
- (1) A and C only
- (2) A and D only
- (3) B and C only
- (4) B and D only

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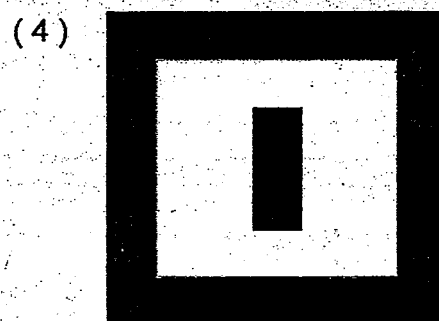
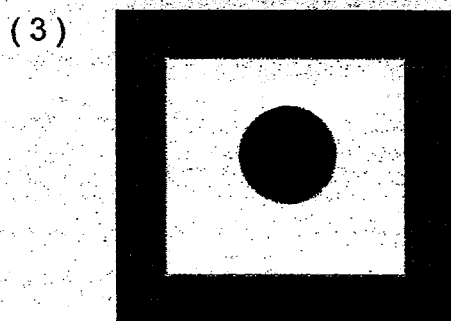
10. Emma has a piece of clear plastic surrounded with a metal frame as shown in the following diagram.



He shone a torch on it and placed a styrofoam cylinder behind as shown in the following diagram.



Which of the following shows the shadow formed on the white screen?



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PRIMARY 3

SCIENCE
(BOOKLET B)

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Class : P3 _____

Total Time for Booklet A & Booklet B : 1 hr 15 mins

INSTRUCTIONS TO CANDIDATES

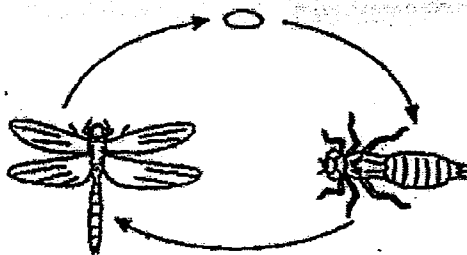
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5. For Section A, shade your answers for questions 1 to 10 in the Optical Answer Sheet (OAS) provided.
6. For Section B, write your answers for questions 11 to 18 in the space provided in the booklet.
7. The total marks for Booklet B is 25 marks.

| | | |
|--------------------|--|-----|
| Booklet A | | /20 |
| Booklet B | | /25 |
| Total | | /45 |
| Parent's signature | | |

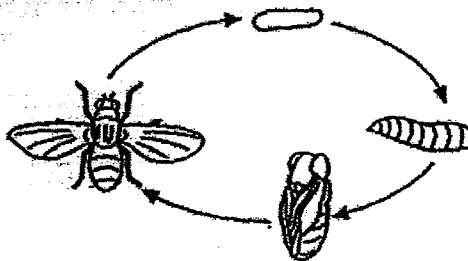
Section B (25 marks)

Write your answers to questions 11 to 18 in this booklet.

11. The diagrams below show the life cycles of Insect X and Y respectively.



Life cycle of Insect X



Life cycle of Insect Y

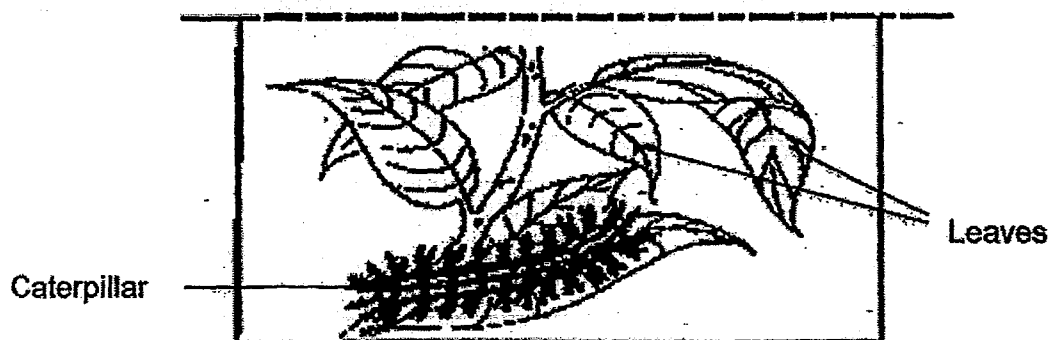
(a) Based on the diagram, state a difference between the life cycles of Insect X and Insect Y. (1m)

(b) Which insects (X or Y) has a similar life cycle with each of the following insects? (2m)

(i) Cockroach: _____

(ii) Grasshopper: _____

12. John wanted to find out how much food a caterpillar needs to eat so he sets up the experiment as shown below. He observed the set-up for a week.



He weighed the leaves daily and recorded it in the table below.

| Day | Mass of leaves (g) |
|-----|--------------------|
| 1 | 20 |
| 2 | 18 |
| 3 | 15 |
| 4 | 12 |
| 5 | 10 |
| 6 | 10 |
| 7 | 10 |

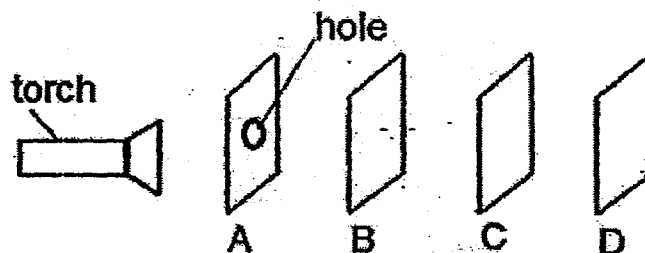
- (a) John observed that by the end of the week, the caterpillar had already developed into a pupa. Based on the table above, from which day did the caterpillar most likely become a pupa? (1m)

Day _____

- (b) Explain your answer in (a). (2m)

| | |
|--|---|
| | 3 |
|--|---|

13. Yi Ling set up an experiment with four different materials (A, B, C and D) as shown below.



When the torch was shone, she saw a bright patch of light on Material C.

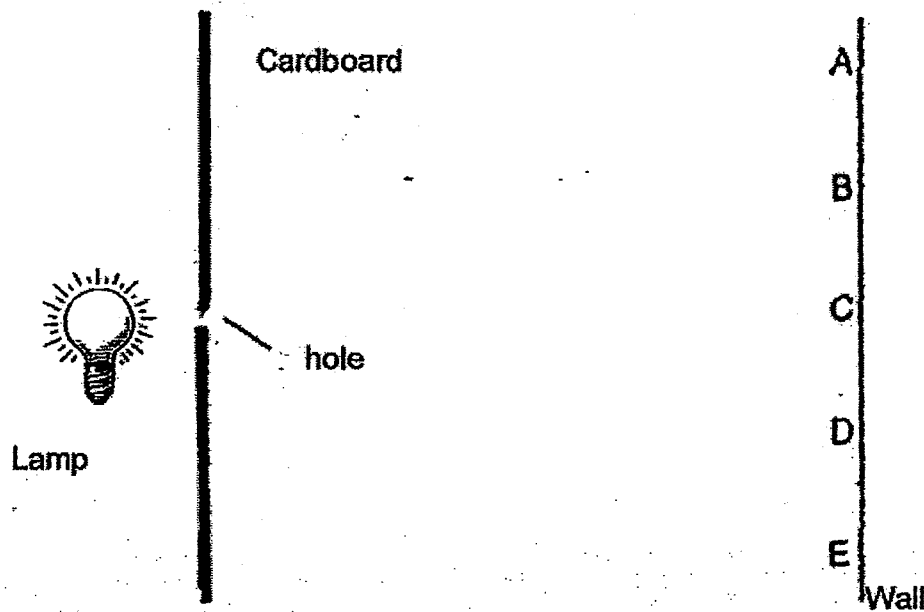
- (a) Classify the four materials using the table below. (2m)

| Transparent | Opaque | Not Possible to Tell |
|-------------|--------|----------------------|
| | | |
| | | |
| | | |

- (b) Yi Ling then replaced Material C with a piece of clear plastic. Would she get the same results? Explain your answer. (1m)

| | |
|--|---|
| | 3 |
|--|---|

14. Ali cut up a hole in a piece of cardboard and brought it into a dark room. He then set up his experiment as shown below.



- (a) Which part of the wall (A, B, C, D or E) would Ali see a bright spot of light? (1m)

Part _____

- (b) Give a reason for your answer in (a). (2m)

| | |
|--|---|
| | 3 |
|--|---|

15. Mosquitoes are known to spread diseases. To prevent mosquitoes from breeding, the National Environment Agency advises people to change the water in their vases on alternate days.

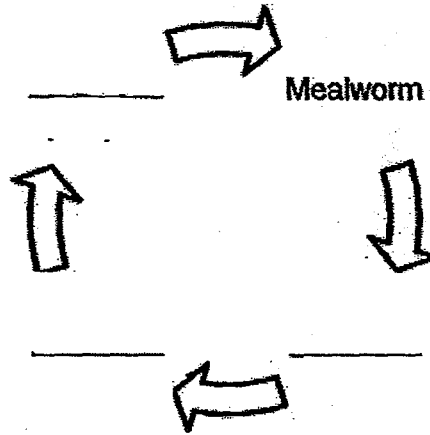
(a) How does this help to prevent mosquitoes from breeding? (2m)

(b) Siti keeps a pet goldfish. Her mother saw the advice and suggests that Siti should change the water in the fish bowl every alternate days to prevent mosquitoes from breeding. Do you agree with Siti's mother? Explain your answer. (1m)

| | |
|--|---|
| | 3 |
|--|---|

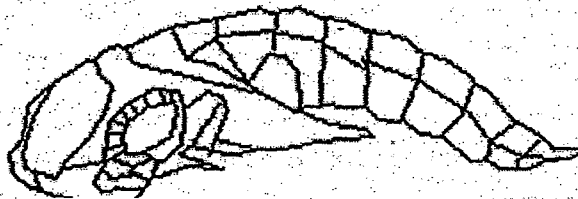
16. Ray observed a mealworm that his teacher gave him over a few weeks.

(a) Complete the life cycle of the mealworm below. (1m)



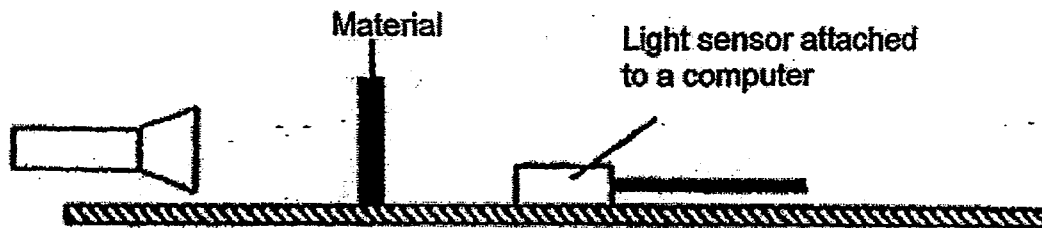
(b) On the 3rd day, he noticed that there was a clump of 'skin' in the container. Which process did the mealworm go through to produce that? (1m)

(c) 2 weeks later, he found that the mealworm had turned white and it laid there without moving. He drew a picture of it and claimed that it was dead.



Do you agree with his claim? Why or why not (1m)

17. Jane used a light sensor to measure the amount of light passing through different materials A, B and C.



She recorded her results in the table below.

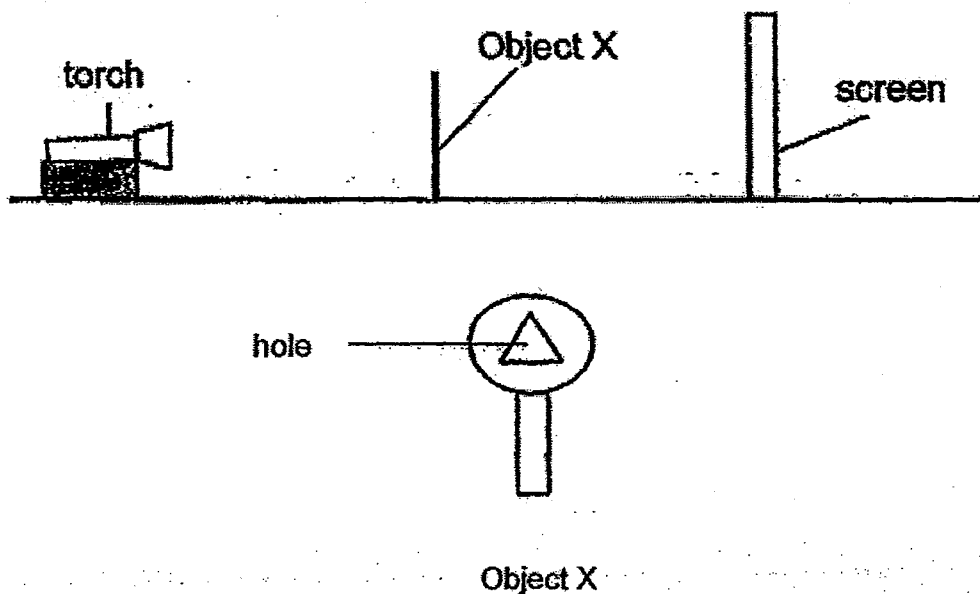
| Material | Amount of light (lux) |
|----------|-----------------------|
| A | 230 |
| B | 0 |
| C | 95 |
| D | 150 |

- (a) Arrange the materials from the most transparent to the least transparent. (2m)

_____ → _____ → _____ → _____
 (Most transparent) (Least transparent)

- (b) Which material (A, B, C or D) could likely be wood? Give a reason for your answer. (1m)

18. Miss Tan placed object X, with a hole in the middle, in between a torch and a white screen as shown below.



- (a) She observed a dark shadow formed on the white screen but a bright triangular light in the middle. Explain her observations. (2m)

| | |
|--|---|
| | 2 |
|--|---|

Miss Tan then asked her students to move the object closer to the torch. They measured the distance between the torch and the object as well as the height of the shadow and recorded their findings in the table below.

| Distance between lamp and object (cm) | Height of shadow (cm) |
|---------------------------------------|-----------------------|
| 25 | 5 |
| 20 | 7 |
| 15 | 9 |

- (b) Based on the above information, how does the height of the shadow change as the distance between the lamp and object decrease? (1m)

- (c) Predict what will happen to the height of the shadow if the distance between the lamp and the object is more than 25cm.

| | |
|--|---|
| | 2 |
|--|---|

EXAM PAPER 2015

SCHOOL : RIVER VALLEY

SUBJECT : P3 SCIENCE

TERM : CA2

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

11) a) Insect X has 3 stages while insect Y has 4 stages.

b) i) Insect X ii) Insect X

12)a) Day 5

b) Mass of leaves for day 5 ,6/7 are the same so in pupa stage it will not feed. The mass of leaf will remain the same.

13) a) B A D

C

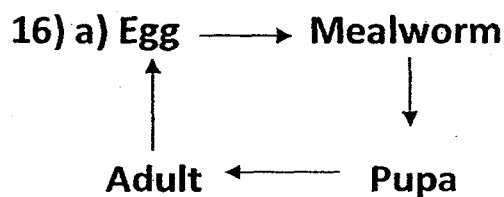
b) She would not get the same results. If material C is transparent, the shadow will be cast on material D.

14)a) C

b) Light travels in a straight line. Since C is a straight line from the light, Ali would see a bright spot of light at C.

15) a) Mosquitoes breed in stagnant water so changing water will flush away the mosquitoes' eggs and kill them.

b) I do not agree. Mosquitoes breed in stagnant water but fish keeps the water from being still.



b) The mealworm is going through moulting.

c) No. The mealworm had developed into the pupa. It does not move and continue growing and turn into adult.

17) a) A → D → C → B

b) Material B could likely be wood. It is because wood is opaque.

18) a) When light is blocked by an opaque object, shadow is formed. There is a triangular hole that allows light to pass through to form bright triangular light.

b) When the light source is near the object, it will become big and blur.

c) The shadow will be smaller.