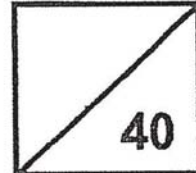




Rosyth School
Weighted Assessment Two for 2020
SCIENCE
Primary 4

Name: _____

Total
Marks:



Class: Pr 4 _____

Register No. _____

Duration: 45 min

Date: 27 August 2020

Parent's Signature: _____

Instructions to Pupils:

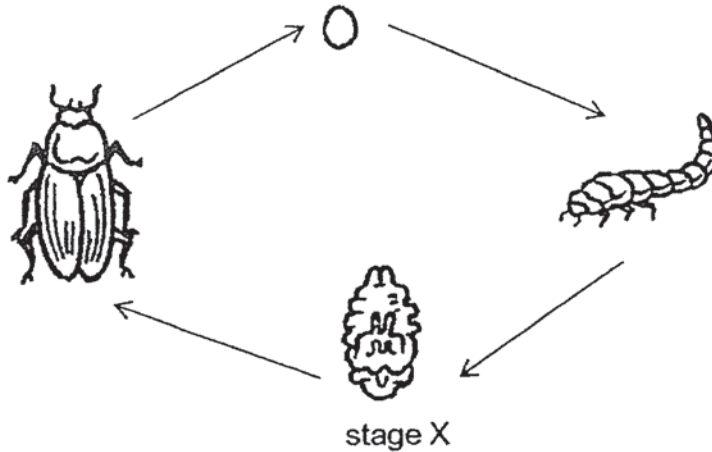
1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. For questions 1 to 11, shade the correct answer on the Optical Answer Sheet.
4. For questions 12 to 16, give your answers in the spaces provided.

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

* This booklet consists of 14 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) and shade your correct answer on the Optical Answer Sheet. (22 marks)

1. The diagram below shows the life cycle of a mealworm beetle.



Which one of the following statements is true about stage X?

- (1) It can fly.
 - (2) It resembles the adult.
 - (3) It grows new body parts.
 - (4) It feeds less than the other stages.
2. Ammar observed a stage of the life cycle of a butterfly. It fed on the leaves of a plant. Which stage is the butterfly likely to be?
- (1) Adult
 - (2) Pupa
 - (3) Larva
 - (4) Nymph

3. The diagram below shows a chicken and a frog.

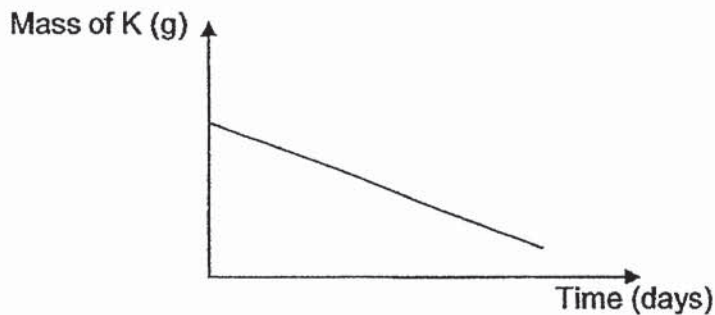


Which of the following statements about their life cycles are true?

- A: Both the chicken and the frog lay eggs.
- B: The chicken has a 4-stage life cycle while the frog has a 3-stage life cycle.
- C: The young of the chicken resembles the adult but the young of the frog does not.

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

4. K is a part of a seedling. The graph below shows the mass of K over a few days as a seed grows into a seedling.

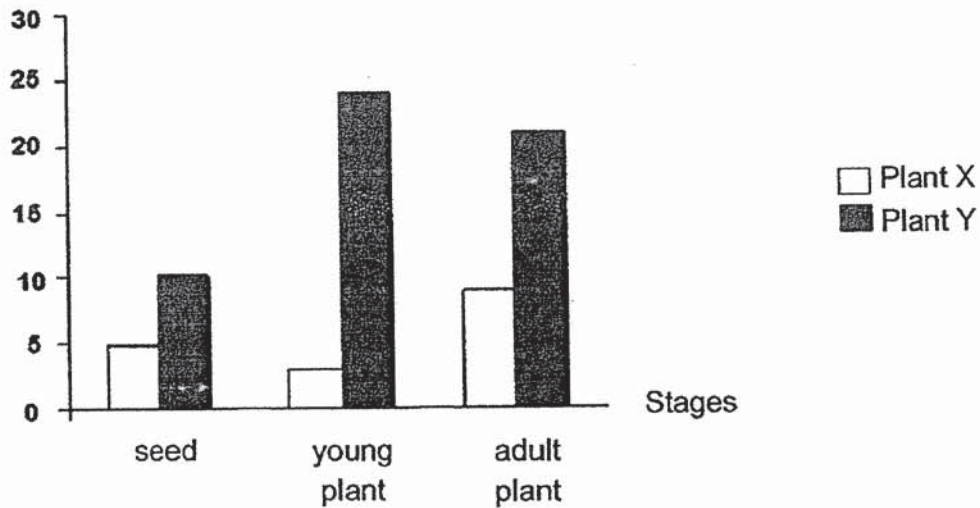


Which one of the following represents K?

- (1) Roots
- (2) Shoots
- (3) Seed coat
- (4) Seed leaves

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

Number of days



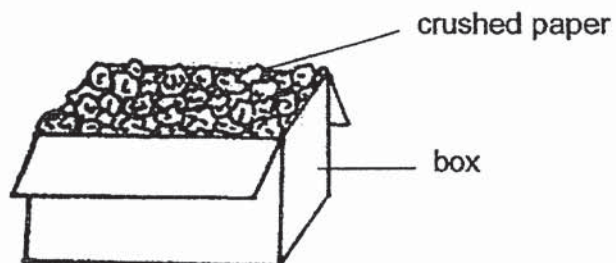
Based on the graph, which one of the following statements is true about Plants, X and Y?

- (1) Plant Y is taller than Plant X.
 - (2) Plant Y bears fruits faster than Plant X.
 - (3) The seed of Plant X takes a longer time to germinate than Plant Y.
 - (4) Plant X takes a shorter time to complete one life cycle than Plant Y.
6. Which of the following are examples of matter?

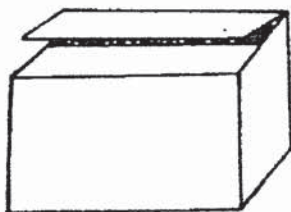
A: light
B: plant
C: cloud

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

7. Jeremy crushed some used paper and threw them into a box as shown below.



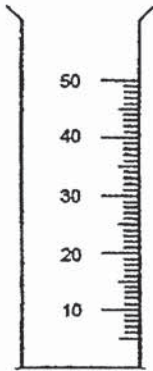
After applying some force, he managed to close the box as shown below.



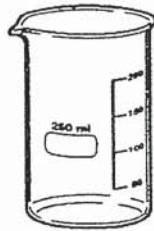
Which one of the following statements correctly explained why the box could be closed?

- (1) Paper has been compressed.
- (2) Crushed paper has indefinite shape.
- (3) The box and paper have definite volume.
- (4) The air in the box have been compressed.

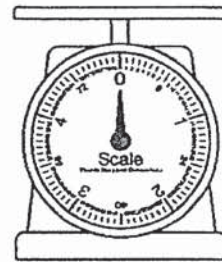
8. Jessica wants to measure 25 cm³ of water accurately.



A



B

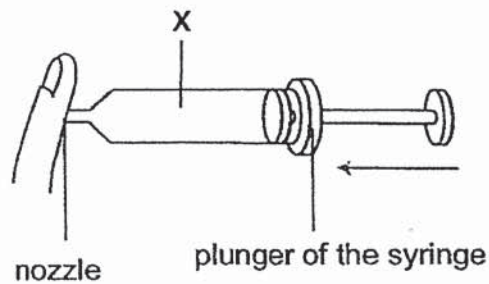


C

Which of the instruments above is/are suitable to measure 25 cm³ of water accurately?

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

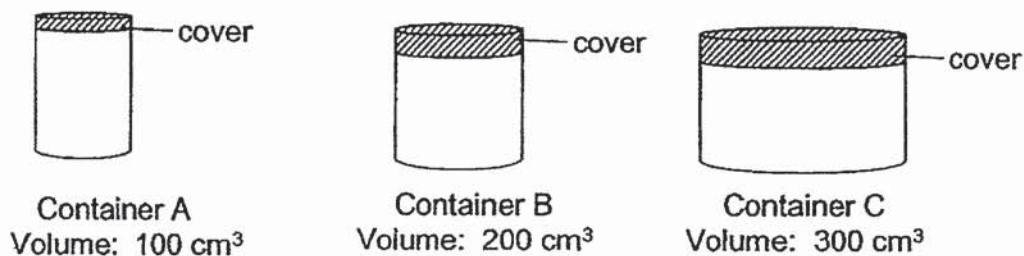
9. Rina filled the syringe below with matter X. When she covered the nozzle with her finger, she could push in the plunger of the syringe to a certain extent.



What is X most likely to be?

- (1) Oil
- (2) Air
- (3) Sand
- (4) Water

10. Which of the following container(s) below can hold 200 cm^3 of air?



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

11. The table below shows the properties of W, X and Y.

Property	W	X	Y
Can occupy space	Yes	Yes	Yes
Has a definite shape	No	No	Yes
Has a definite volume	No	Yes	Yes

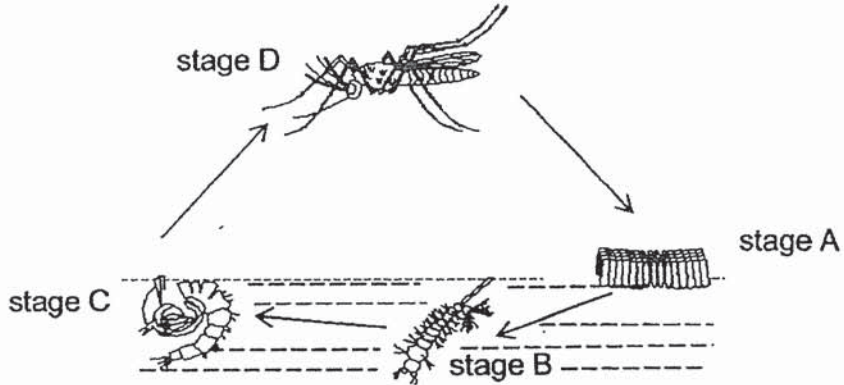
Which one of the following statements is correct?

- (1) W has no volume.
- (2) X can be compressed.
- (3) Y takes the shape of the container.
- (4) W, X and Y are different states of matter.

For questions 12 to 16, write your answers in this booklet.

(18 marks)

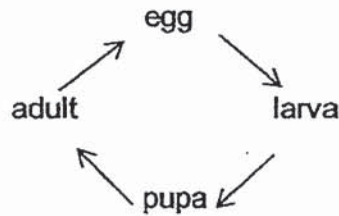
12. The diagram below shows the life cycle of a mosquito.



(a) Why do the adult and the young of a mosquito live in different environments in order to stay alive? [1]

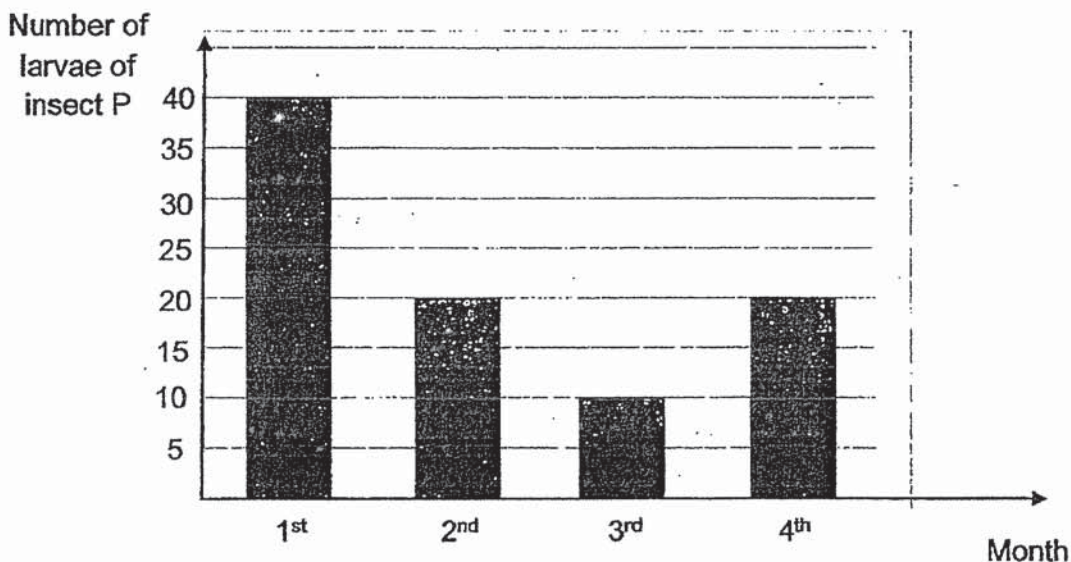
(b) At which stages would it be easier to kill the mosquito? Explain why. [2]

13. Hubert conducted an experiment to study the life cycle of insect P.



He placed some larvae of insect P into a tank and provided them with enough amount of air, food and water.

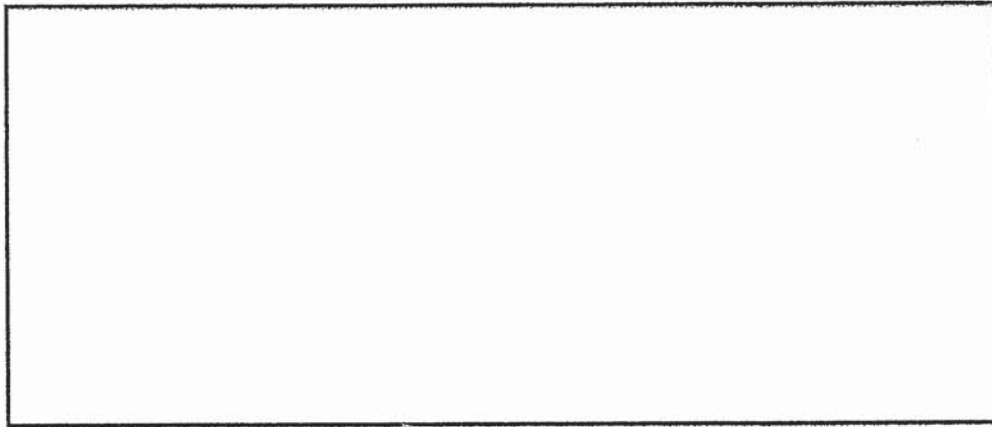
During the experiment, no larvae died or escaped. Hubert then recorded the number of larvae over four months in the graph as shown below.



(a) There is a decrease in the number of larvae of insect P from the 1st month to the 3rd month. Explain why. [1]

(b) Explain why there was an increase in the number of larvae of insect P from the 3rd month to the 4th month. [2]

14(a) In the box provided below, draw a life cycle of a plant. Use words and arrows only. [2]

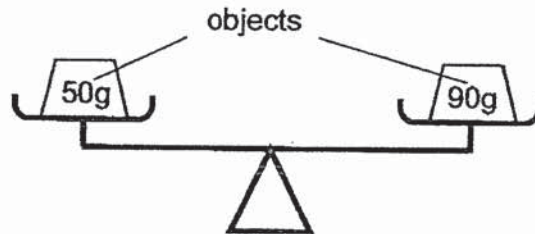


(b) Compare the life cycles of a plant and a cockroach. Name two similarities. [2]

Similarity 1:

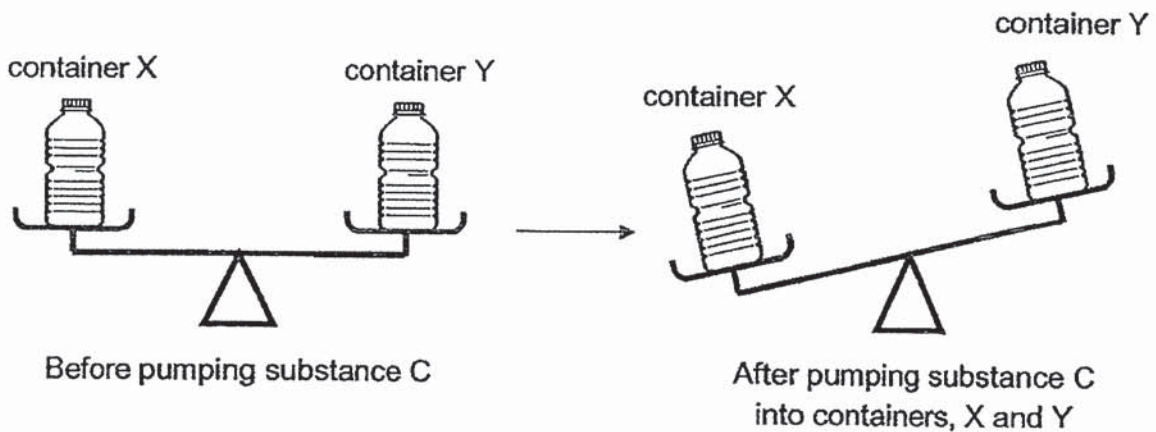
Similarity 2:

15. Jonas placed two objects on a balance and the results are as shown below.



(a) Do you think the above balance is in working condition? Explain your answer. [1]

Using another balance, Jonas placed two empty containers, X and Y, on it. Both containers were identical with a volume of 250cm^3 . Jonas then pumped 300cm^3 of substance C into container X and 250cm^3 of substance C into container Y.



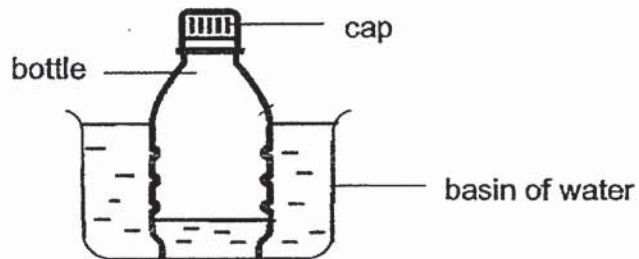
(Question 15 is continued on page 12)

- (b) Based on the set-up above, study the following statements and put a tick (✓) in the correct box. [2]

	Statements	True	False	Not possible to tell
(i)	Substance C has mass.			
(ii)	Substance C has a fixed volume.			

- (c) Suggest another instrument that Jonas could use to find the mass of container Y. [1]
-

16. Joel cut a bottle and placed it into a basin of water. As he pushed the bottle into the basin of water, he noticed that some water has entered the bottle as shown below.

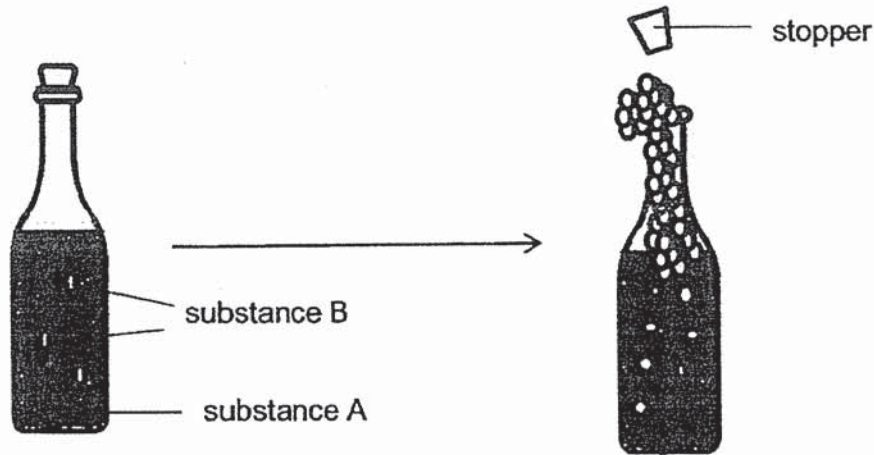


(a) What would happen to the water level in the bottle and basin when the cap is removed? Put a tick (✓) in the correct box. [2]

	Observation	Increase	Decrease	Remains the same
(i)	Water level in the basin			
(ii)	Water level in the bottle			

(Question 16 is continued on page 14)

Joel filled an empty bottle with substance A and placed a stopper as shown below. When he shook the bottle, substance B was produced. Substance B rose to the brim and the stopper popped out.



(b) Name the state of matter for the following substances.

[2]

(i) Substance A: _____


(ii) Substance B: _____

End of Paper

ANSWER KEY

YEAR : 2020
LEVEL : PRIMARY 4
SCHOOL : ROSYTH
SUBJECT : SCIENCE
TERM : CA2

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

Q12	<p>a) As the young and adult need different living conditions to stay alive as the young's food source is the living organisms in the stagnant water while the adult's food source is animal blood.</p> <p>b) Stage A,B,C as they all must stay in water to stay alive while stage D can easily fly around so we can get rid of the stagnant water stage A,B,C are in easily as they can only live in stagnant water.</p>
Q13	<p>a) As some of the larvae turned into pupas so there would be less larvae.</p> <p>b) The pupa had turned into an adults. The adult had laid eggs which match into larva again.</p>
Q14	<p>a)</p>  <p>b) Similarity 1 : They both have a three stage life cycle. Similarity 2 : Both the young resemble their adults.</p>

<p>Q15</p>	<p>a) No , as both objects are at different weight age the balance is not tilted to ether one of the sides and they are balanced so the above balance is not inworking condition.</p> <p>b)</p> <table border="1" data-bbox="387 454 1334 779"> <thead> <tr> <th>Statements</th> <th>True</th> <th>False</th> <th>Not possible to tell</th> </tr> </thead> <tbody> <tr> <td>i) Substance C has mass.</td> <td>✓</td> <td></td> <td></td> </tr> <tr> <td>ii) Substance C has a fixed volume.</td> <td></td> <td>✓</td> <td></td> </tr> </tbody> </table> <p>c) Electronic balance.</p>	Statements	True	False	Not possible to tell	i) Substance C has mass.	✓			ii) Substance C has a fixed volume.		✓	
Statements	True	False	Not possible to tell										
i) Substance C has mass.	✓												
ii) Substance C has a fixed volume.		✓											
<p>Q16</p>	<p>a)</p> <table border="1" data-bbox="392 920 1337 1196"> <thead> <tr> <th>Observation</th> <th>Increase</th> <th>Decrease</th> <th>Remain the same</th> </tr> </thead> <tbody> <tr> <td>i) Water level in the basin</td> <td></td> <td>✓</td> <td></td> </tr> <tr> <td>ii) Water level in the bottle</td> <td>✓</td> <td></td> <td></td> </tr> </tbody> </table> <p>b) i. Substance A : Liquid ii. Substance B : Gas</p>	Observation	Increase	Decrease	Remain the same	i) Water level in the basin		✓		ii) Water level in the bottle	✓		
Observation	Increase	Decrease	Remain the same										
i) Water level in the basin		✓											
ii) Water level in the bottle	✓												

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