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METHODIST GIRLS' SCHOOL  
Founded in 1887



PRIMARY 3  
SCIENCE  
WEIGHTED ASSESSMENT 1 2023

Total Time for Paper: 45 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.  
Follow all instructions carefully.  
Answer all questions.

Name: \_\_\_\_\_ ( )

Class: Primary 3. \_\_\_\_\_

Date : \_\_\_\_\_

Section A	12
Section B	8
Total	20

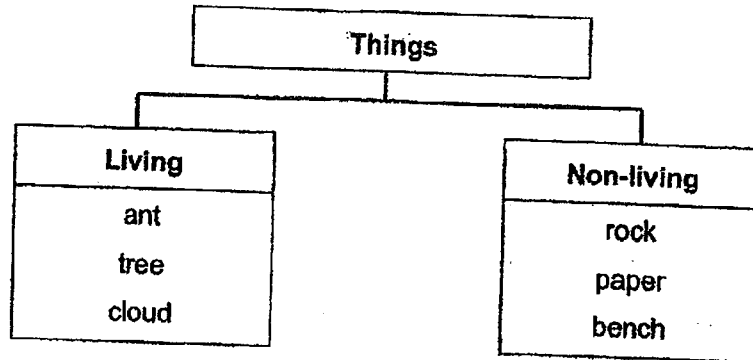
This paper consists of 8 printed pages including this page.

Vertical text on the left margin, possibly a page number or reference code.

**Section A**

For each question from 1 to 6, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write in the bracket provided. [12 marks]

- 1 Study the classification chart below.



Which one of the things above has been grouped incorrectly?

- (1) ant  
 (2) rock  
 (3) cloud  
 (4) paper
- ( )
- 2 Jane's parents recorded her height and weight over 8 years as shown in the table below.

Age	Height (cm)	Weight (kg)
2 years	80	9.6
4 years	94	12.9
6 years	107	16
8 years	118	19.4

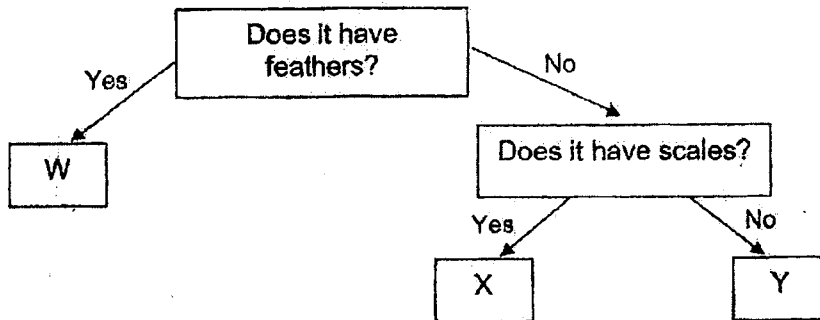
Based on the information in the table, what can be concluded?

- A Jane can grow.  
 B Jane can reproduce.  
 C Jane needs air, food and water.  
 D Jane can respond to changes around her.

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

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3 Study the chart below.

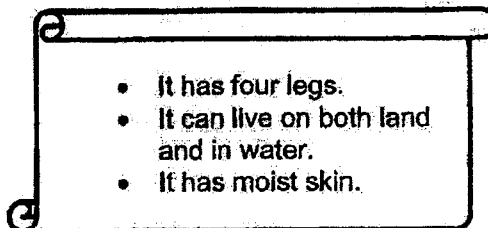


Which of the following is not correct?

- (1) Y could be a fish.
- (2) W could be a bird.
- (3) X could be a reptile.
- (4) Y could be an insect.

( )

4 Sarah found an unknown animal Q near a pond. She made some observations about animal Q as shown below.







Which animal group does Q belong to?

- (1) Insect
- (2) Reptile
- (3) Mammal
- (4) Amphibian

( )

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5 The table below shows how some plants are grouped.

Group A	Group B
 <p data-bbox="683 622 783 651">coconut</p>	 <p data-bbox="1166 667 1278 725">bird's nest fern</p>
 <p data-bbox="676 936 772 965">papaya</p>	 <p data-bbox="1134 958 1203 987">moss</p>

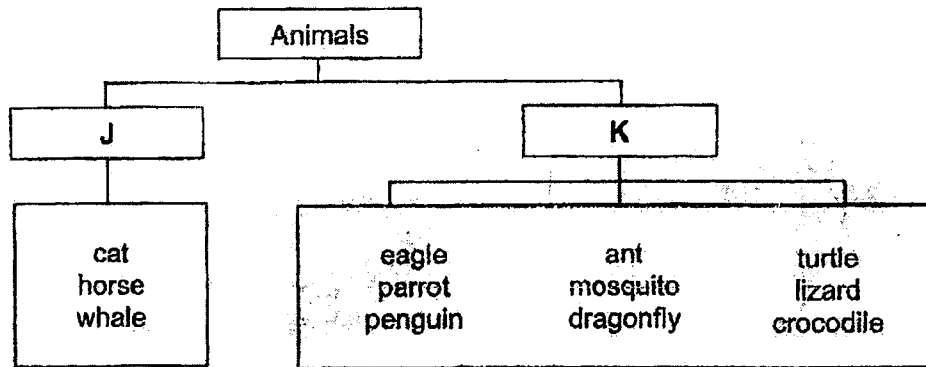
What are two possible headings for Groups A and B?

	Group A	Group B
(1)	Grow from spores	Grow from seeds
(2)	Non-flowering	Flowering
(3)	Grow on land	Grow in water
(4)	Can produce fruits	Cannot produce fruits

( )

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6 Study the classification chart on animals below.



Which of the following can headings J and K be?

	J	K
A	Lives on land	Lives on land and in water
B	Has a constant body temperature	Does not have a constant body temperature
C	Has an outer covering of hair	Has an outer covering of feathers
D	Reproduces by giving birth to young alive	Reproduces by laying eggs

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

( )

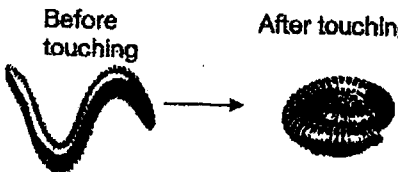
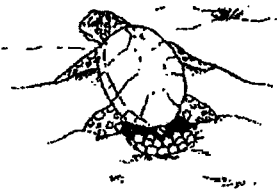
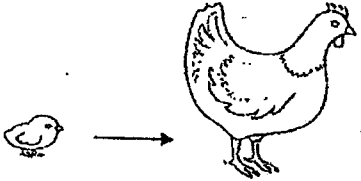
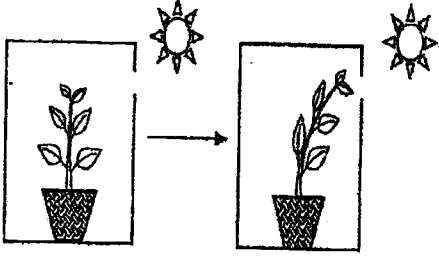
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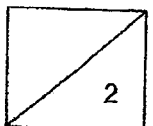
**Section B**

For questions 7 to 9, write your answers in the space provided.

[8 marks]

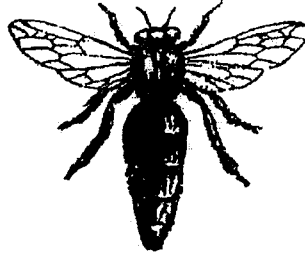
7. Match the descriptions to the correct characteristics of living things by drawing lines to connect the dots. [2]

Descriptions		Characteristics of living things
<p>Ali noticed that a millipede curled up when he touched it with a leaf.</p> <p>Before touching      After touching</p> 	●	● Living things can grow.
<p>A turtle laying eggs.</p> 	●	● Living things respond to changes.
<p>A chick becomes a chicken.</p> 	●	● Living things reproduce.
<p>A plant grows towards light.</p> 	●	



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8 The picture below shows Animal Z.



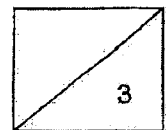
(a) Which animal group does animal Z belong to? [1]

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(b) State two reasons for your answer in (a). [2]

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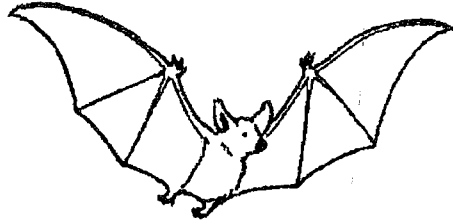
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9 The pictures below show animals W and X.



animal W



animal X

(a) Which animal group does animal W belong to? [1]

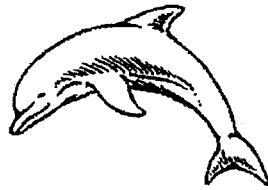
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(b) How do animals W and X reproduce? [1]

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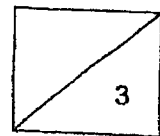
(c) The picture below shows a dolphin. It can swim and lives in water.



Can the dolphin be classified in the same animal group as animal X? Explain why. [1]

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End of Paper



METHODIST GIRLS' SCHOOL  
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PRIMARY 3  
SCIENCE  
WEIGHTED ASSESSMENT 2 2023

Total Time for Paper: 45 min

**INSTRUCTIONS TO CANDIDATES**

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Name: \_\_\_\_\_ ( )

Class: Primary 3. \_\_\_\_\_

Date : \_\_\_\_\_

Parent's signature: \_\_\_\_\_

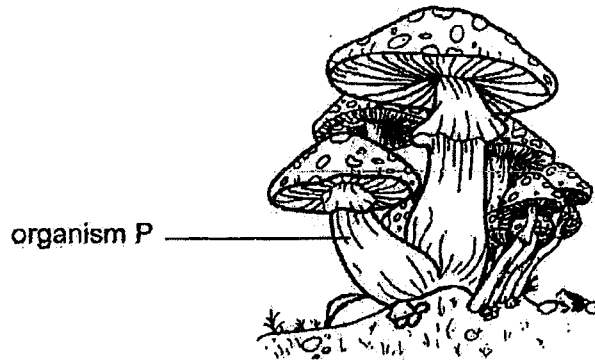
Section A	18
Section B	12
Total	30

This paper consists of 12 printed pages including this page.

**Section A**

For each question from 1 to 9, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write in the bracket provided. [18 marks]

- 1 The diagram below shows organism P.



Which of the following is incorrect?

- (1) It reproduces by spores.  
 (2) It makes its own food.  
 (3) It grows on another object.  
 (4) It breaks down other objects into simpler substances. ( )

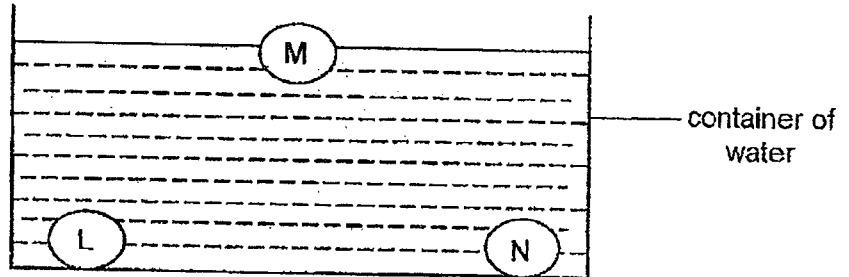
- 2 Which of the following is/are true about fungi and bacteria?

- A Fungi and bacteria are always harmful to us.  
 B Fungi and bacteria comes in different shapes and sizes.  
 C Fungi can reproduce but bacteria cannot reproduce.  
 D Fungi and bacteria can only be seen under the microscope.

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

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- 3 Miya placed three solids made of materials, L, M and N into a container of water. The three solids are of the same size. Her observation is shown below.



She made the following statements:

- A L is lighter than N  
 B M and N are different materials.

Which statement(s) can be concluded from her observation?

- (1) A only  
 (2) B only  
 (3) A and B  
 (4) Neither A nor B

( )

- 4 Study the objects listed in the table below.

X	Y
Cotton shirt	Ceramic bowl
Paper plate	Gold ring
Rubber gloves	Metal pipe

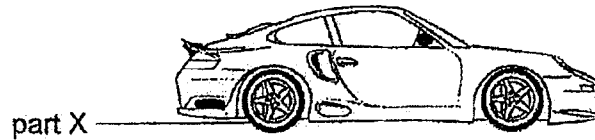
How are the objects classified?

	X	Y
(1)	Strong	Not strong
(2)	Flexible	Rigid
(3)	Floats on water	Sinks in water
(4)	Allows light to pass through,	Does not allow light to pass through.

( )

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- 5 The diagram below shows a car.



The table below shows the properties of four different materials P, Q, R and S. A tick (✓) shows that the material has the property.

Material	Flexible	Strong	Absorbs water	Allows light to pass through
P		✓		✓
Q	✓	✓	✓	
R	✓		✓	
S	✓	✓		

Which material, P, Q, R or S is the best choice to make part X?

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

( )

- 6 The table below shows the properties of three objects A, B and C.

Properties	Objects		
	A	B	C
Bends easily		✓	✓
Does not allow light to pass through	✓	✓	✓
Absorbs water			✓

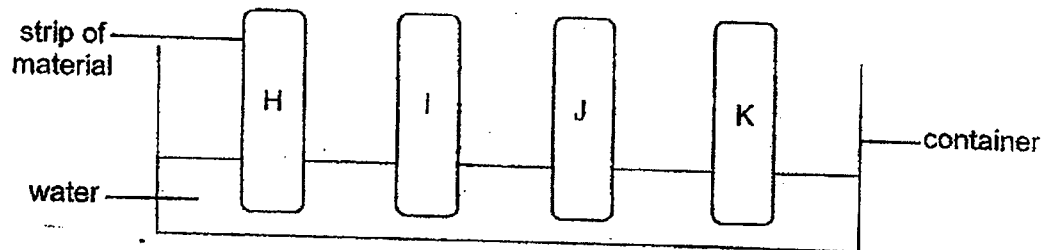
Which one of the following best represents objects A, B and C?

	A	B	C
(1)	mirror	cotton towel	rubber band
(2)	rubber band	mirror	cotton towel
(3)	mirror	rubber band	cotton towel
(4)	rubber band	cotton towel	mirror

( )

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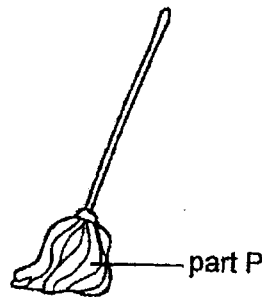
- 7 Kadita conducted an experiment to find out how much water can be absorbed by four strips of different materials H, I, J and K of the same mass, size and thickness. She placed the four strips of materials into a container of water for an hour and measured their mass.



The table below shows her results.

Material	Mass at first (g)	Mass after an hour (g)
H	5	18
I	5	5
J	5	7
K	5	10

Kadita wanted to choose a suitable material to make part P of a mop.



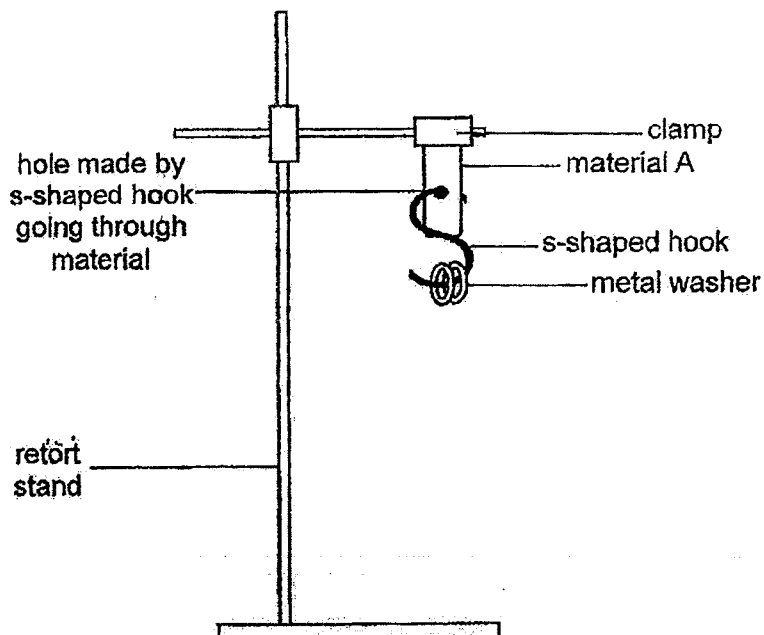
Which material is most suitable to make part P of a mop?

- (1) H
- (2) I
- (3) J
- (4) K

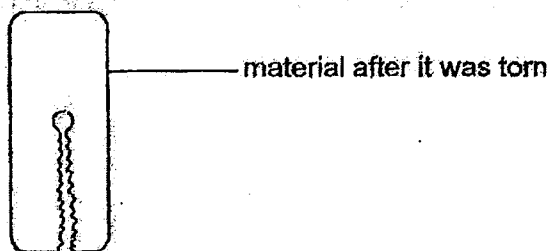
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- 8 Lesley set up the experiment as shown below to test the strength of three different materials, A, B and C, of similar size and thickness.



She hung the metal washers one at a time until the hook tore through material A and repeated the experiment with materials B and C.



The table below shows her results.

Material	Number of metal washers needed to tear through the material
A	3
B	11
C	6

What could Lesley conclude based on her results?

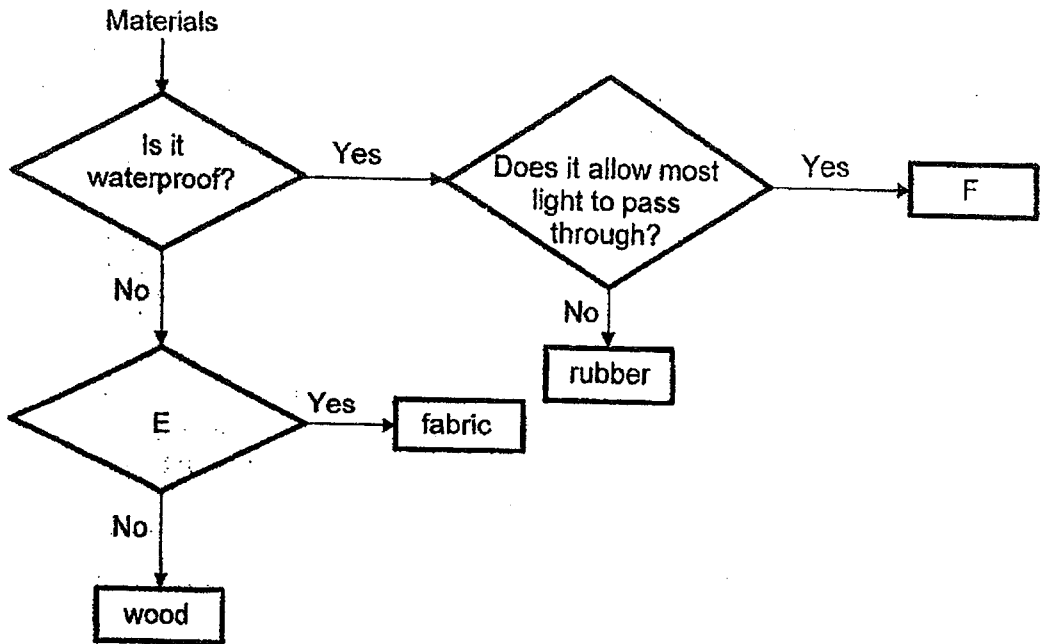
- (1) Material A is stronger than material B.
- (2) Material A is stronger than material C.
- (3) Material C is stronger than material B.
- (4) Material B is stronger than material A.

( )

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- 9 The flow chart below shows the classification of some materials based on their properties.



What one of the following best represents E and F?

	E	F
(1)	Is it strong?	ceramic
(2)	Is it flexible?	glass
(3)	Does it float in water?	plastic
(4)	Does it sink in water?	metal

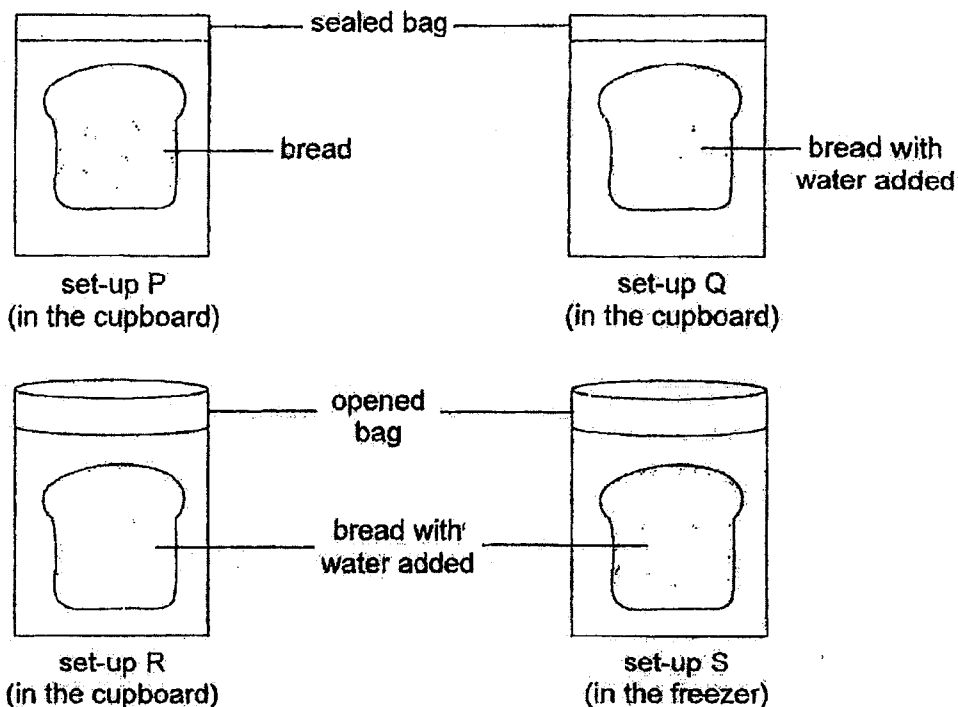
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**Section B**

For questions 10 to 14, write your answers in the space provided.

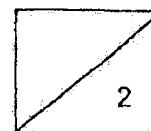
[12 marks]

- 10 Harith conducted an experiment to find out the conditions required for bread mould to grow. He placed four similar slices of bread in four identical bags under different conditions as shown below.



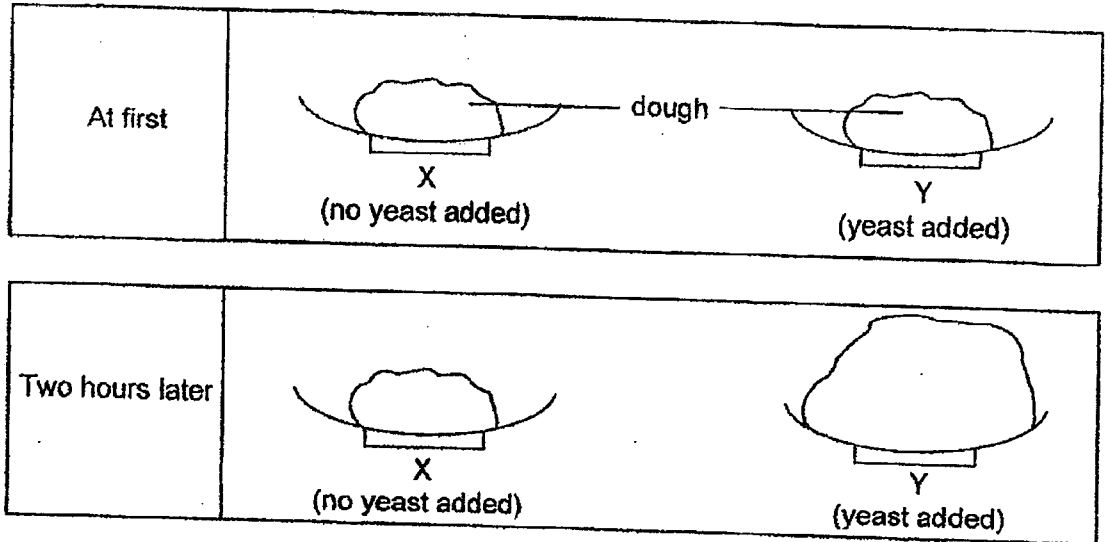
- (a) Which two set-ups should he use to find out if water is required for bread mould to grow? [1]

- (b) After one week, Harith observed there were mould growing on the bread in set-ups P, Q and R but not in S. Suggest a reason why no mould grew on the bread in set-up S. [1]

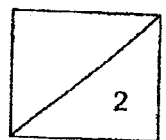


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- 11 Wanwan conducted an experiment with yeast and two pieces of dough of the same type and mass to find out if yeast is required for dough to rise. She puts both plates of dough, X and Y, in the science lab for two hours as shown below.

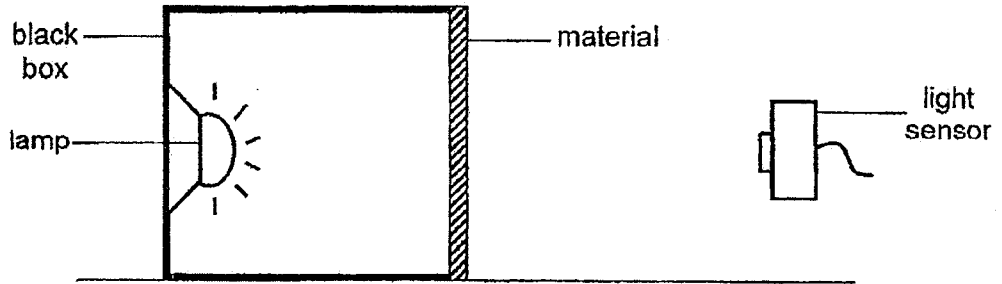


- (a) What is the changed variable in the experiment? [1]
- 
- (b) Wanwan's friend, Jane, said that yeast is a type of bacteria. Do you agree with her? Explain why. [1]
- 
- 



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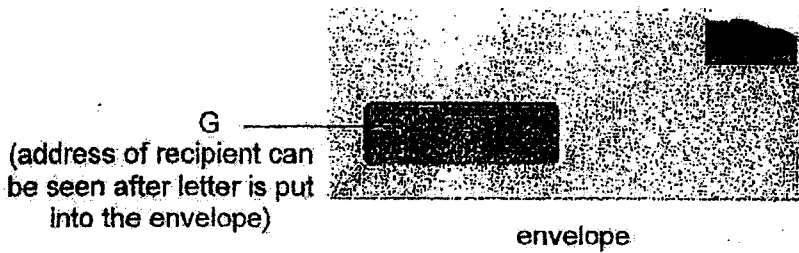
- 12 Edith carried out an experiment to find out how much light can pass through three materials, A, B and C, as shown below.



She used a light sensor to measure the amount of light that passed through each material and recorded her results in the table below.

Materials	Amount of light that passes through each material (unit)
A	380
B	0
C	100

Edith wanted to select suitable materials to make part G of an envelope as shown below.

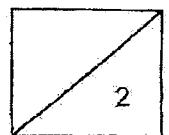


Based on the results, which material, A, B or C is most suitable to make part G of the envelope? Explain your answer. [2]

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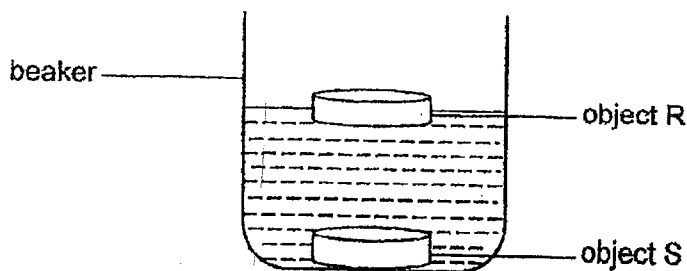


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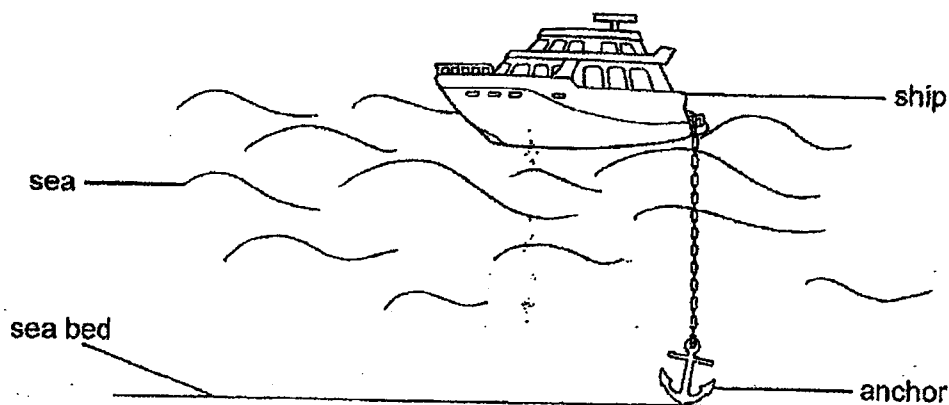
- 13 Zilong conducted an experiment by placing two objects, R and S, made of different materials, into a beaker of water as shown below.



- (a) Based on the diagram above, what property of material is Zilong comparing? [1]

---

The diagram below shows a ship with its anchor thrown into the sea. The anchor holds the ship to the seabed and prevents the ship from moving on its own when it is out at sea.



- (bi) Based on Zilong's experiment, which object, R or S, is suitable for making the anchor? Explain your answer. [1]

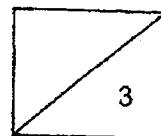
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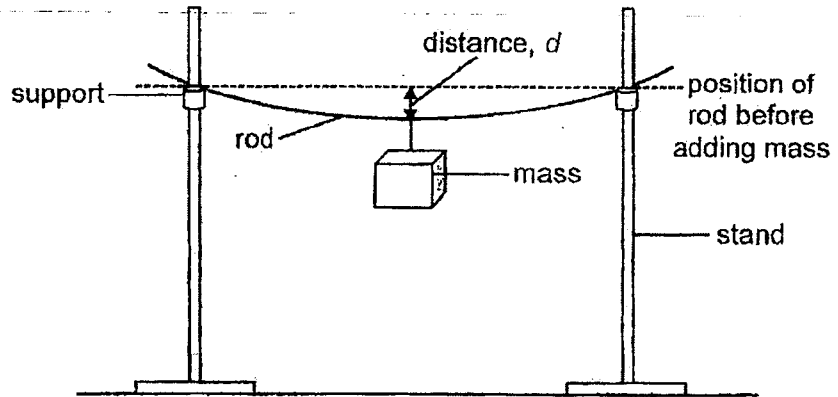
- (bii) State one other property that the material must have so that it can be used to make an anchor. [1]

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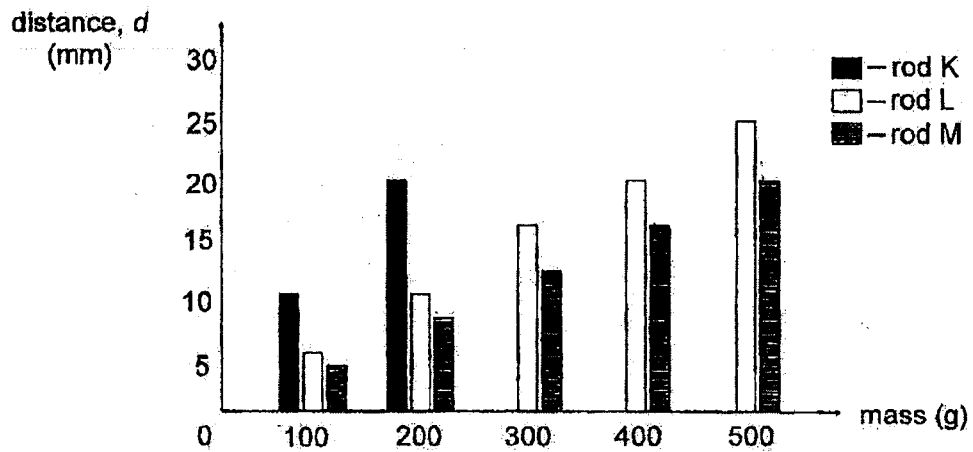


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- 14 Masha carried out an experiment on rod K using the set-up shown below. She measured the distance,  $d$ , at the middle of the rod after adding each mass.



She repeated the experiment using rods L and M of different materials but of the same length. Her results are shown below.



- (a) Which property of material was Masha comparing? [1]
- 
- (b) When a mass of 200g was added, which rod, K, L or M bent the most? [1]
- 
- (c) Why was Masha not able to obtain a reading for rod K when more than 200g of mass was added? [1]
-

METHODIST GIRLS' SCHOOL  
Founded in 1887



PRIMARY 3  
SCIENCE  
WEIGHTED ASSESSMENT 3

Total Time for Paper: 40 min

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.  
Follow all instructions carefully.  
Answer all questions.

Name: \_\_\_\_\_ ( )

Class: Primary 3. \_\_\_\_\_

Date : \_\_\_\_\_

Parent's signature: \_\_\_\_\_

Section A	20
Section B	10
Total	30

This paper consists of 11 printed pages including this page.

**Section A**

For each question from 1 to 10, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4) and write in the bracket provided. [20 marks]

- 1 Four pupils shared what they had learnt in school about life cycles.



Ming Lee

Animals do not go through the same life cycle as their parents.

All living things go through a life cycle.

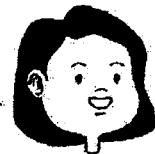


Mala



Collin

Different living things go through the same life cycle.



Siti

A life cycle is a repeated pattern of change.

Which pupils shared the correct statements?

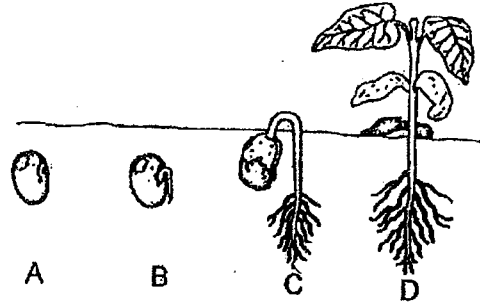
- (1) Mala and Siti
- (2) Collin and Mala
- (3) Ming Lee and Siti
- (4) Ming Lee and Collin

(       )

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- 2 The diagram shows the stages of growth of a bean plant.



The seed leaves provide food for the seed to grow at stages \_\_\_\_\_.

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

( )

- 3 Joshua carried out an experiment to find out if seeds need water to grow into seedlings. He put some seeds in the pots and watered them daily.

Pot	Amount of water given daily (cm <sup>3</sup> )	Number of seeds in each pot
A	100	20
B	0	10
C	100	10
D	200	20

Which pots should Joshua use to find out if water is necessary for the seeds to grow into seedlings?

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

( )

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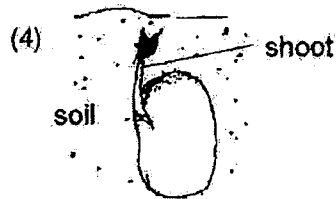
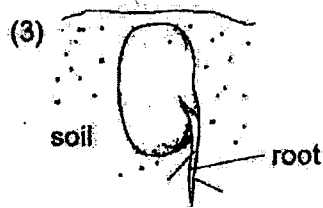
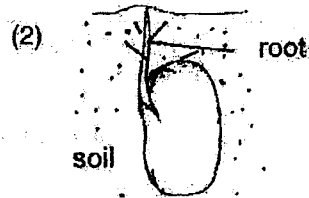
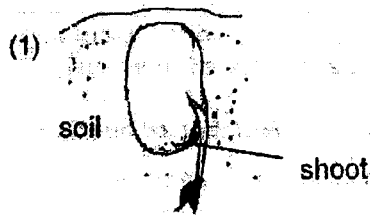
4 Which of the following statements are true?

- A Not all plants grow from seeds.
- B The roots grow before the shoot.
- C A young plant with leaves can make food.
- D Plants that grow from seeds have four stages in their life cycles.

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

( )

5 Alison was growing some green bean seeds. Which of the following shows what she would first observe?



( )

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6 Study the table below.

A	B
Grasshopper Cockroach Chicken	Butterfly Beetle Frog

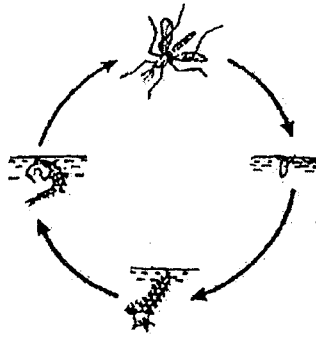
Which of the following correctly states the heading for A and B?

	A	B
(1)	Young resembles the adult	Young does not resemble the adult
(2)	Reproduce by laying eggs	Does not reproduce by laying eggs
(3)	Does not have pupa stage	Has pupa stage
(4)	Animals that cannot fly	Animals that can fly

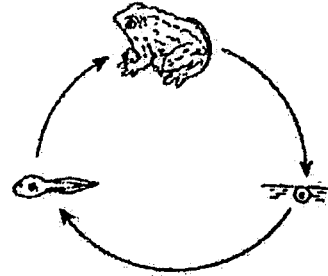
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- 7 Ravi, Benny and Susan discussed about the life cycle of a mosquito and a frog shown below.



Life cycle of a mosquito



Life cycle of a frog

After their discussions, they recorded the following statements.

Ravi : The larva of a mosquito goes through moulting but not the young of a frog.

Benny : The young of a frog looks like its adult but not the mosquito.

Susan : The young of the frog lives in water and on land but the larva of the mosquito lives in water only.

Whose statements are **not** correct?

- (1) Ravi and Benny
- (2) Ravi and Susan
- (3) Benny and Susan
- (4) Ravi, Susan and Benny

( )

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8 Study the table below.

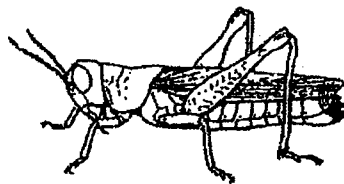
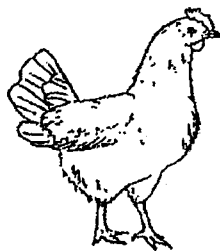
Characteristic	Animal W	Animal X	Animal Y	Animal Z
Does it have a 4-staged life cycle?	No	Yes	No	Yes
Does its young moult?	No	Yes	No	Yes
Does the adult lay eggs on land?	Yes	Yes	Yes	No
Does the young look like the adult?	No	No	Yes	No

Which animal W, X, Y or Z is most likely a beetle?

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

( )

9 The diagram below shows three animals.



Which of the following statements about the life cycles of these animals is correct?

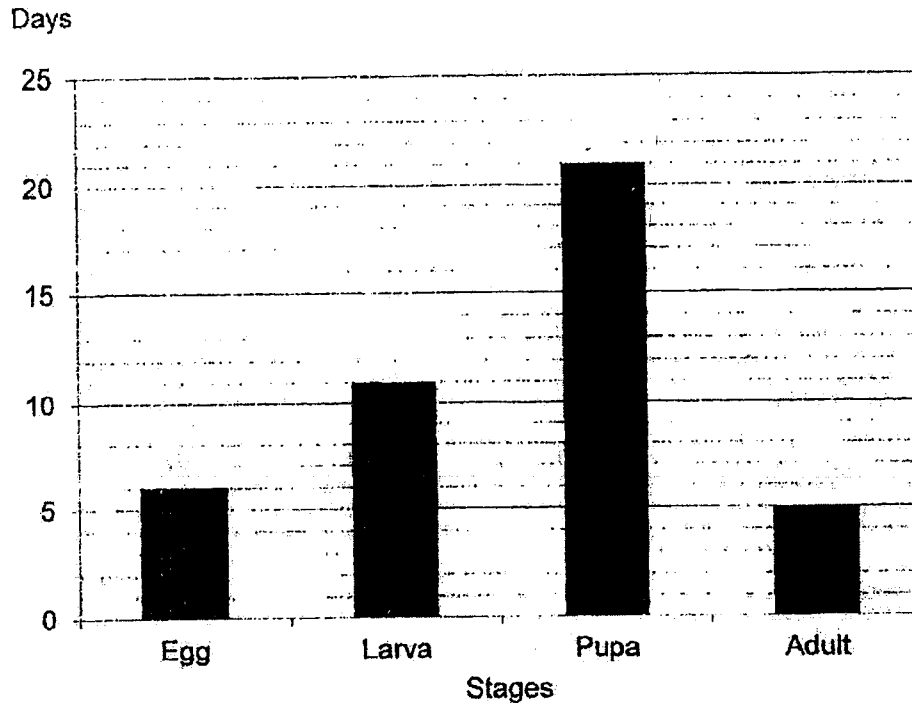
- (1) The adults have wings.
- (2) The eggs are laid in water.
- (3) These animals have a nymph stage.
- (4) Their life cycles have three stages.

( )

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- 10 The graph below shows the number of days in each stage of the life cycle of Insect X.

Number of days in each stage of the life cycle of Insect X



Based on the graph above, which of the statements below are true?

- A The egg takes 6 days to hatch.
- B The young of Insect X looks like the adult.
- C Insect X cannot fly in the adult stage.
- D Insect X does not need to eat for 21 days after its larva stage.

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

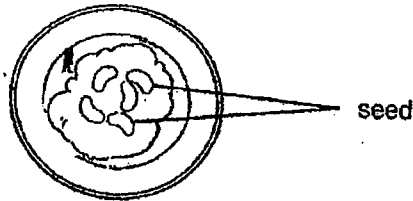
( )

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**Section B**

For questions 11, 12 and 13, write your answers in the space provided. [10 marks]

- 11 Jason wanted to investigate how temperature would affect the growth of seeds. He had five set-ups. Each set-up consists of five seeds placed on some moist cotton wool as shown in the diagram below. He then put each set-up in a different location.



Set-up	A	B	C	D	E
Location	Oven	Cupboard	Room	Freezer	Ice cooler box
Temperature	80 °C	25 °C	23 °C	4 °C	10 °C

- (a) In which two set-ups would the seeds most likely grow? [1]

Set-ups \_\_\_\_\_ and \_\_\_\_\_

- (b) Explain your answer in (a). [1]

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In another experiment, Jason placed the experiment shown below next to a window.



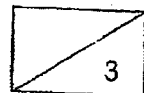
- (c) Based on the diagram, will the seeds grow? Give a reason for your answer. [1]

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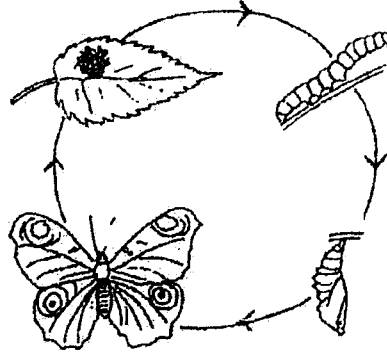


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12 The diagram below shows the life cycle of a butterfly.



(a) Why does the butterfly lay eggs on leaves?

[1]

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(b) State two differences between the larva and pupa stages in the life cycle of a butterfly.

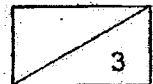
[2]

(i) \_\_\_\_\_

\_\_\_\_\_

(ii) \_\_\_\_\_

\_\_\_\_\_



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13 The diagram below shows an adult cockroach and its nymph.



(a) State one difference between the adult cockroach and its nymph.  
(Do not mention colour, size or length.)

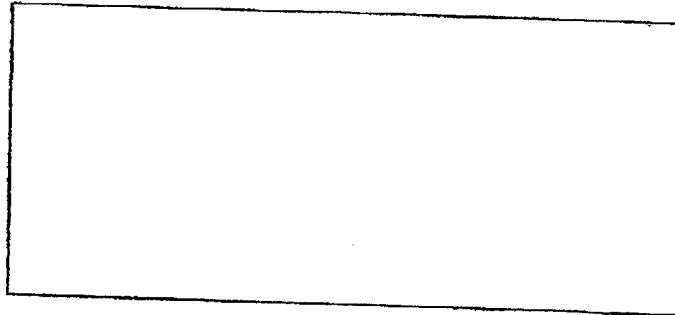
[1]

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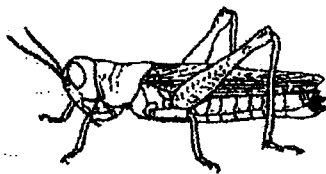
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(b) Draw and label the life cycle of a cockroach in the box below.

[2]



The picture below shows a grasshopper.



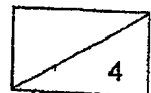
(c) State a similarity between the life cycles of the cockroach and the grasshopper.

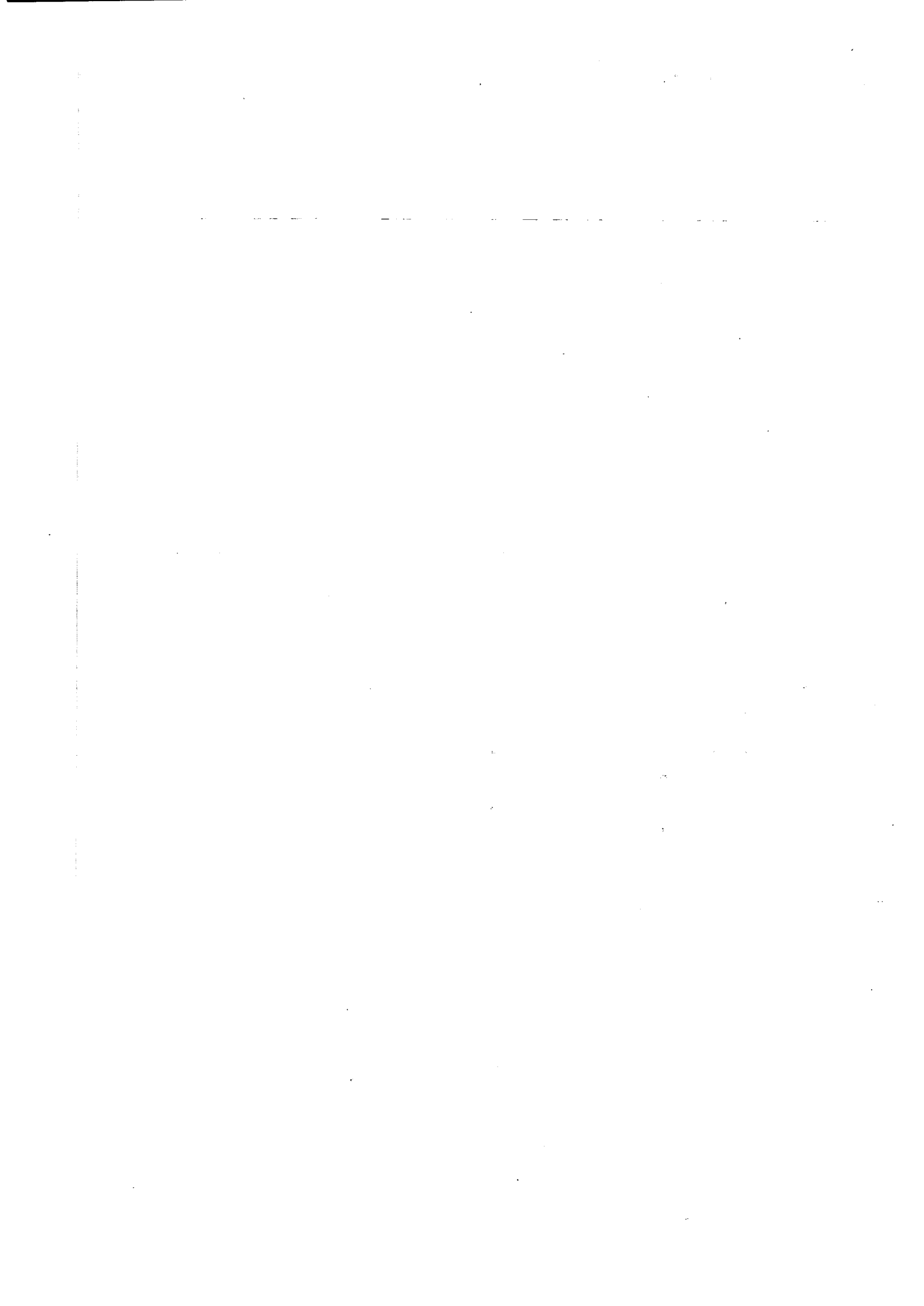
[1]

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End of paper





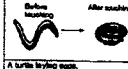


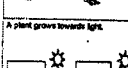
SCHOOL : METHODIST GIRLS' PRIMARY SCHOOL  
 LEVEL : PRIMARY 3  
 SUBJECT : SCIENCE  
 TERM : 2023 WA 1, 2 & 3

CONTACT :

WA 1

Q 1	Q2	Q3	Q4	Q5	Q6				
3	1	1	4	4	1				

Q7)

Observations	Characteristics of living things
<p>All material that is wet/damp curled up when he touched it with a nail.</p> <p>Before touching → After touching</p>  <p>A turtle laying eggs.</p>  <p>A chick becomes a chicken.</p>  <p>A plant grows towards light.</p> 	<p>Living things can grow.</p> <p>Living things respond to changes.</p> <p>Living things reproduce.</p>

Q8)

(a) Animal Z belongs to insects.  
 (b) Animal Z is an insect because it has six legs and three body parts as all insects do.

Q9)

(a) Animal W belongs to mammals.  
 (b) Animal W reproduces by giving birth to young alive while animal X reproduces by laying eggs.  
 (c) No because the dolphin reproduces by giving birth to young alive while Animal X lays eggs.

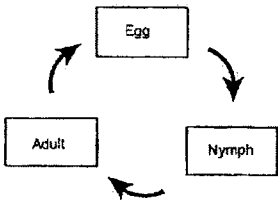
WA 2

Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	
2	1	2	2	4	3	1	4	2	

Q10)	(a) Set-up P and Q (b) Set-up S was put in the freezer so it was too cold for mould to grow.
Q11)	(a) Whether the yeast was added to the dough. (b) I do not agree with Jane because yeast is a fungi, not bacteria.
Q12)	Material A as it lets the most light through.
Q13)	(a) Whether the material floats or sinks (b) (i) Object S. S sinks in water so it is the most suitable for making the anchor. (ii) The anchor must be waterproof.
Q14)	(a) How flexible the material is (b) Rod K (c) Rod K broke

**WA 3**

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

Q11)	(a) Set-up B and C (b) Water, air and warmth are present for seeds to germinate. (c) No. The seeds need water to grow.
Q12)	(a) To ensure the larva will have food to feed on when the egg hatches (b) (i) The larva feeds on food while the pupa does not (ii) The larva moves from place to place while the pupa does not
Q13)	(a) The nymph has no wings but the adult has wings.  (b) (c) Both cockroach and the grasshopper have three stages in their life cycle