MAHA BODHI SCHOOL
2022 SEMESTRAL ASSESSMENT 1
PRIMARY FOUR SCIENCE
(BOOKLET A)

Name : _____ ( )

Class : Primary 4 _____

Date : 12 May 2022

Total Duration for Booklets A and B: 1 h 30 min

INSTRUCTIONS TO CANDIDATES:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Shade your answers in the Optical Answer Sheet (OAS) provided.

This booklet consists of **13** printed pages.

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

BLANK PAGE

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

BOOKLET A : [24 x 2 marks = 48 marks]
For each question from 1 to 24, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade your answer on the Optical Answer Sheet.**

1. Which of the following statements about leaves is false?

   (1) All leaves are green.
   (2) Leaves make food for the plant.
   (3) Leaves have many tiny openings.
   (4) Different leaves have different shapes.

2. The pupa stage is not present in the life cycle of the _____.

   A. frog
   B. ladybird
   C. butterfly
   D. cockroach

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

3. The diagram below shows a bird.



   How many stages in the life cycle does the bird have?

   (1) 3
   (2) 4
   (3) 5
   (4) 6

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

4. Which of the following is not matter?

(1) air

(2) ice

(3) balloon

(4) sunlight

5. Which of the following correctly shows the properties of a liquid?

	Has a fixed shape?	Can be compressed?
(1)	Yes	Yes
(2)	Yes	No
(3)	No	Yes
(4)	No	No

6. Which of the following properties is true for both air and a bar magnet?

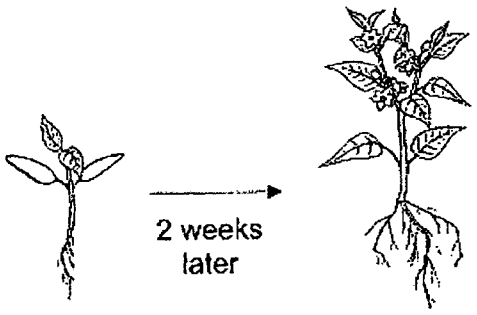
(1) They can be seen.

(2) They take up space.

(3) They have a definite shape.

(4) They have a definite volume.

7. Study the diagram below.



What characteristic of living things is shown above after 2 weeks of growth?

(1) Living things can grow.

(2) Living things can reproduce.

(3) Living things can respond to changes.

(4) Living things need air, food and water.

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

8. Which of the following correctly shows the characteristics of bacteria and fungi?

	Fungi	Bacteria
(1)	Makes its own food	Cannot make its own food
(2)	Harmful to humans	Harmful to humans
(3)	Comes in various shapes and sizes	Comes in various shapes and sizes
(4)	Can be seen only with a microscope	Can be seen without a microscope

9. Sam observed that his grandmother used the frying pan for cooking. Sam did not want her hands to get burnt.



Which material is not suitable for making part X of the frying pan?

(1) iron

(2) wood

(3) plastic

(4) rubber

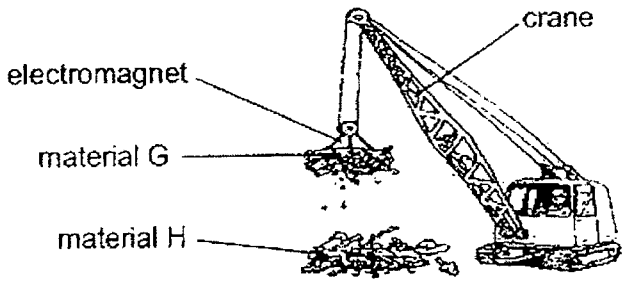
10. Which of the following correctly matches the functions to their organ systems?

	Organ systems	Functions
(1)	Skeletal	helps different parts of the body to move
(2)	Muscular	protects the organ and supports the body
(3)	Circulatory	breaks down food into simple substances
(4)	Respiratory	takes in and removes air from the body

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

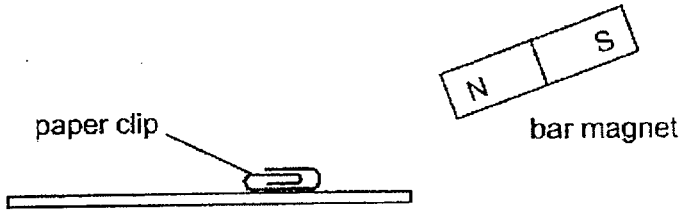
11. The picture below shows a crane that uses an electromagnet to separate materials G and H.



Which of the following represents materials G and H?

	Material G	Material H
(1)	iron	steel
(2)	steel	aluminium
(3)	copper	iron
(4)	aluminium	copper

12. Alan tried to pick up a paper clip using a magnet as shown in the diagram below.



He could not pick up the paper clip.

Which of the following are possible reasons?

A. The paper clip is not made of a magnetic material.

B. The magnetic strength of the magnet is too weak.

C. The wrong pole of the magnet is used to attract the paper clip.

(1) A and B only

(2) A and C only

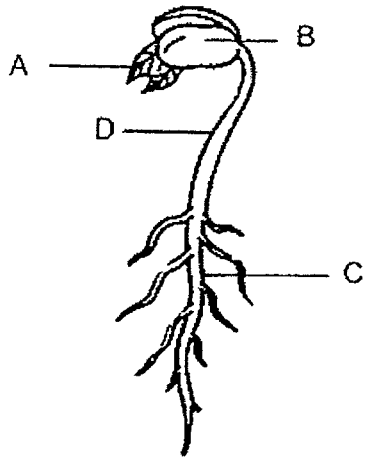
(3) B and C only

(4) A, B and C

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

The diagram below shows a seed as it grows. Refer to the diagram to answer questions 13 and 14.



13 Which part of the seed will grow first?

(1) A

(2) B

(3) C

(4) D

14. When the seed grows into a young plant, which part of it will help the plant to hold the leaves up?

(1) A

(2) B

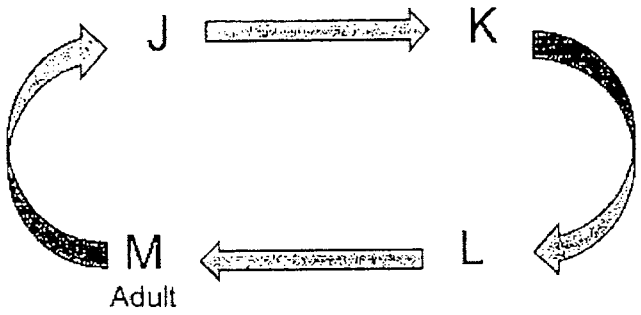
(3) C

(4) D

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

15. Study the life cycle of an insect below. J, K, L and M represents stages in the life cycle.



If M represents the adult stage of the insect, at which stage does the process of moulting take place?

(1) J

(2) K

(3) L

(4) M

16. A basketball has 500 cm^3 of air in it. Siti pumped another 200 cm^3 of air into the basketball. The size of the basketball remained the same throughout.

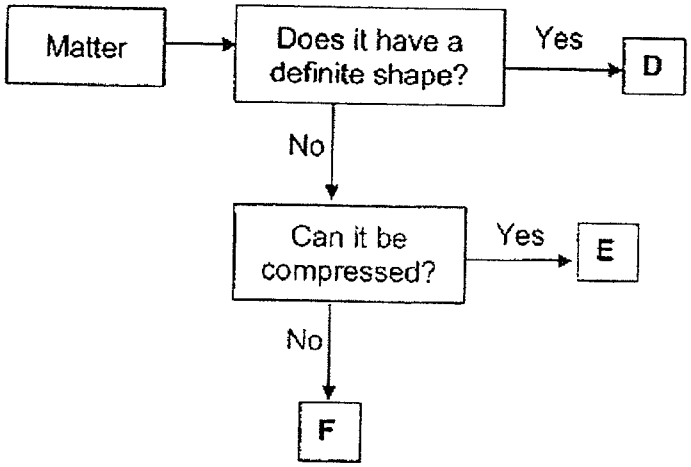
Which of the following about the volume and mass of the air in the basketball is correct after more air is pumped into it?

	Mass	Volume
(1)	same	same
(2)	increases	increases
(3)	increases	same
(4)	same	increases

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

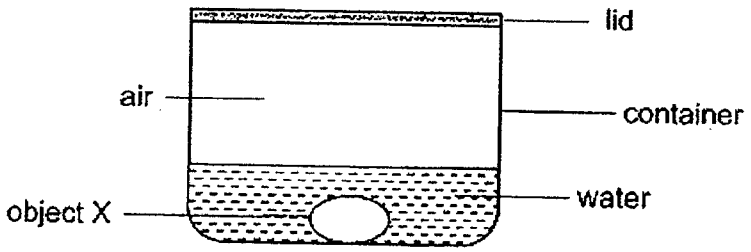
17. Study the flow chart below carefully to identify objects D, E and F.



What are objects **D**, **E** and **F**?

	D	E	F
(1)	rock	soup	oxygen
(2)	soup	oxygen	rock
(3)	rock	oxygen	soup
(4)	oxygen	rock	soup

18. The set-up below shows a container of capacity 1000 cm^3. 250 cm^3 of water was poured into the container and a solid object X was placed in the container. The container was then tightly sealed.



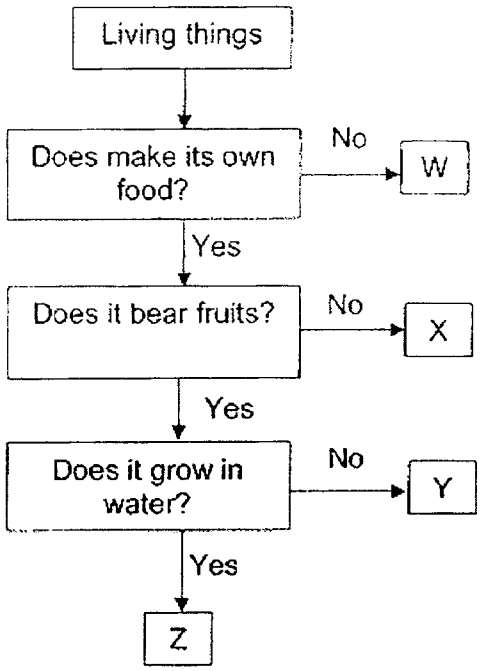
Which of the following correctly describes what would happen to the volume of water and air the container if object X is removed?

	volume of water	volume of air
(1)	decrease	remain the same
(2)	increase	remain the same
(3)	remain the same	decrease
(4)	remain the same	increase

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

19. Study the flowchart below.



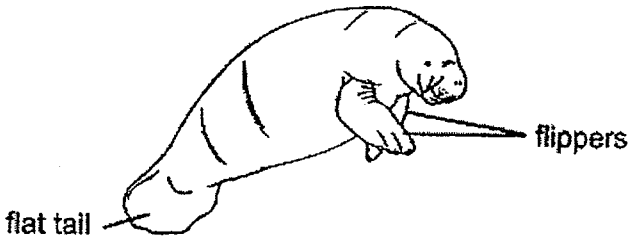
Based on the flowchart, which of the living things W, X, Y or Z are flowering and non-flowering plants?

	Flowering plants	Non-flowering plants
(1)	W	Y, Z
(2)	X	W, Z
(3)	X, Y	Z
(4)	Y, Z	X

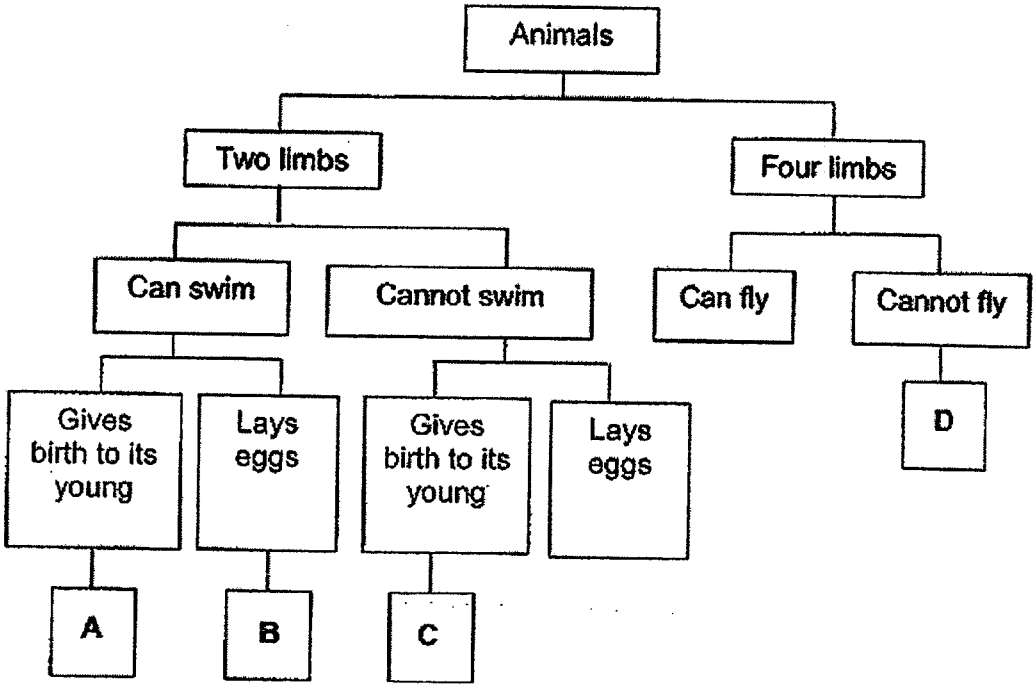
More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

20. A manatee is a mammal that has a pair of modified limbs called flippers and a powerful flat tail. It lives in water.



Study the classification diagram below carefully.



In which group, A, B, C or D does the manatee belong to?

(1) A

(2) B

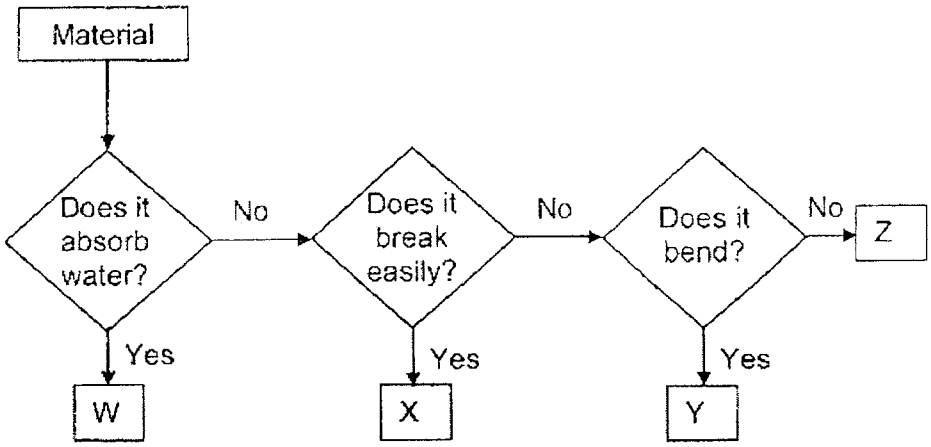
(3) C

(4) D

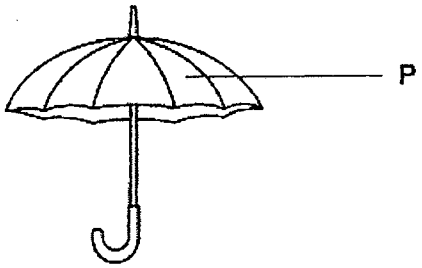
More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

21. Study the flowchart below carefully.



The picture below shows an umbrella.



Based on the flowchart above, which material is most suitable to make part P of the umbrella?

(1) W

(2) X

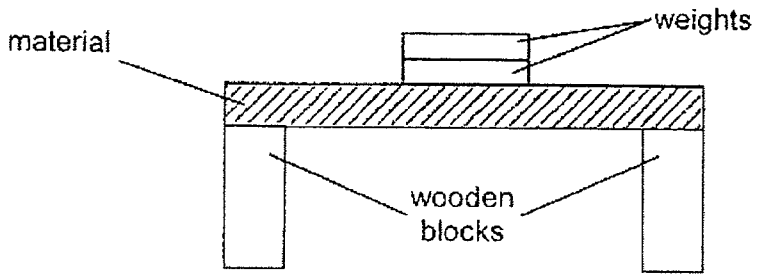
(3) Y

(4) Z

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

22. Andy wanted to test three different materials E, F and G. He placed weights of the same mass on each material, one at a time, until the material broke.



Which property of the material was Andy testing for?

(1) strength

(2) flexibility

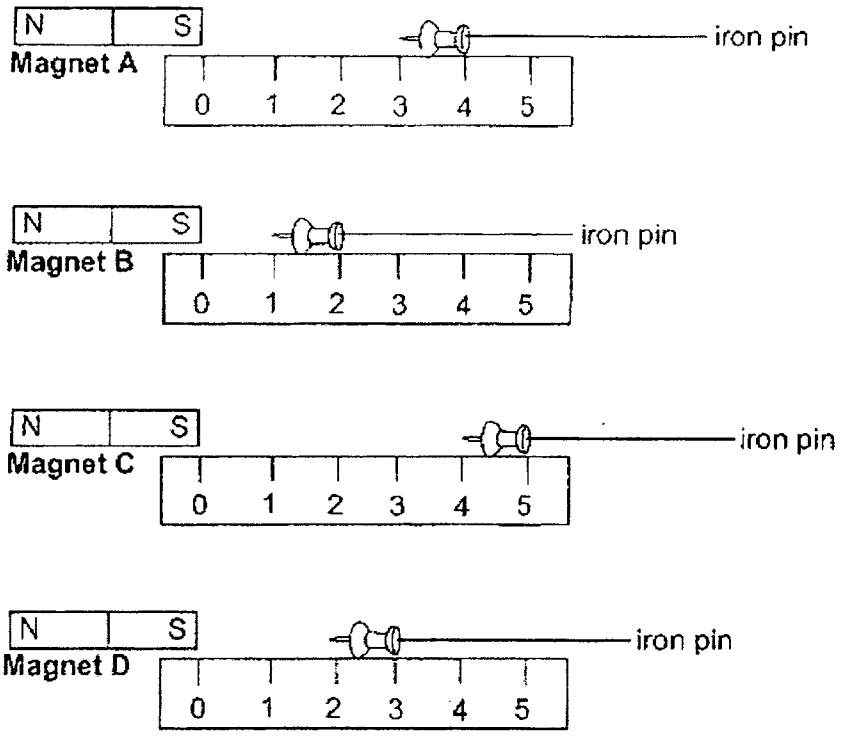
(3) waterproof

(4) transparency

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

23. Bala wanted to find out the strength of four magnets A, B, C and D using identical iron pins. The diagrams below show the greatest distance each magnet could still attract the iron pins.



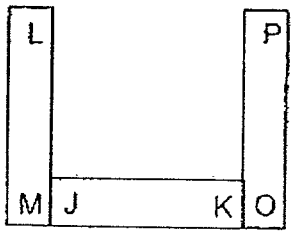
Based on the diagram above, arrange magnets A, B, C and D, from the weakest magnetic strength to the strongest magnetic strength.

	weakest → strongest			
(1)	C	A	D	B
(2)	B	D	C	A
(3)	B	D	A	C
(4)	D	B	A	C

More papers available at www.testpapersfree.com

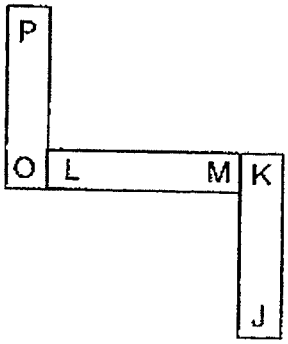
Downloaded from SingaKids.com

24. Mohan arranged three magnets such that one end is attracted to another end as shown in the diagram below.

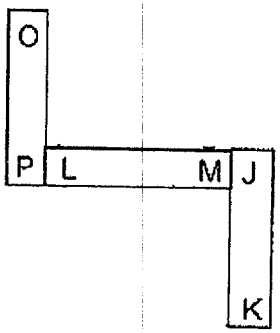


Which of the following diagrams below is a possible arrangement?

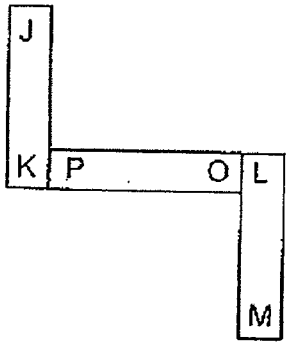
(1)



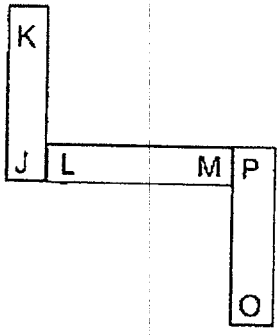
(2)



(3)



(4)



END OF BOOKLET A

GO ON TO BOOKLET B

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

MAHA BODHI SCHOOL
2022 SEMESTRAL ASSESSMENT 1
PRIMARY FOUR SCIENCE
(BOOKLET B)

Name: _____ ( )

Class: Primary 4 _____

Date : 12 May 2022

Total Duration for Booklets A and B: 1 h 30 min

INSTRUCTIONS TO CANDIDATES:

1. Do not turn over this page until you are told to do so.
2. Follow all instructions carefully.
3. Answer all questions.
4. Write all your answer in this booklet.

Booklet	Marks Obtained	Max Marks
A		48
B		32
Total		80

Parent's signature: _____

This booklet consists of **10** printed pages.

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

BLANK PAGE

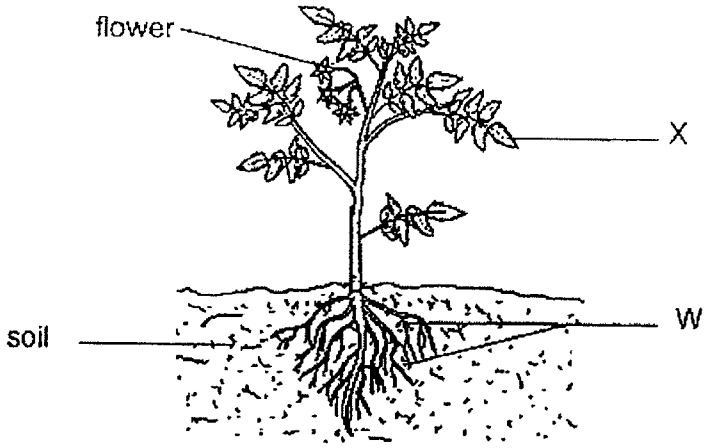
More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

BOOKLET B : [32 marks]
For questions 25 to 34, write your answers in this booklet.

The number of marks available is shown in the brackets [ ] at the end of each question or part-question.

25. The diagram below shows a tomato plant.



(a) State one function of part X. [1]

(b) What do the flowers of the plant develop into? [1]

(c) (i) State the function of part W, which helps the plant when strong wind blows. [1]

(ii) How does having more of part W affects the amount of water absorbed by the plant? [1]

Marks : / 4

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

26. The table below shows the duration of each stage in the life cycle of Insect V.

Stage	Days
Egg	5
Larva	10
Pupa	8
Adult	10

(a) (i) How many stages are there in the life cycle of Insect V? [1]

(ii) How many days would Insect V take to become an adult after the egg is hatched? [1]

A mosquito is found to have similar life cycle as Insect V.

(b) (i) Name the stage(s) of the mosquito that is/are found in the water. [1]

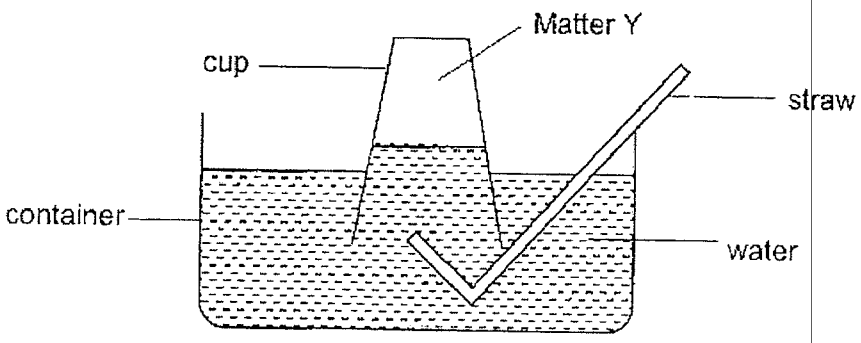
(ii) Give a reason why it is difficult to kill mosquitoes at the adult stage. [1]

Marks : / 4

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

27. Study the diagram below.



(a) What is the state of matter Y in the cup? [1]

(b) What will be observed about the water levels inside and outside of the cup when air was blown into the straw? **Circle** the correct observation. [2]

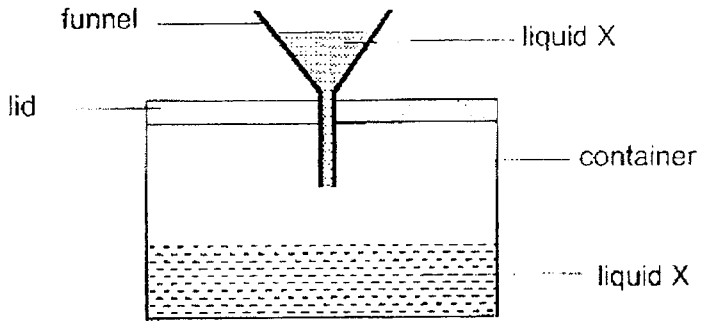
	Water level	Observation
(i)	Inside the cup:	decrease / increase / remain the same
(ii)	Outside the cup:	decrease / increase / remain the same

Marks : / 3

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

28. Siti set-up an experiment as shown below. She poured some Liquid X into a container and placed a lid on the container. She then inserted a funnel into the lid of the container and tried to pour more liquid X into the container.



(a) Siti observed that the Liquid X in the funnel did not drip into the container. Explain Siti's observation. [2]

(b) Siti poked a hole in the lid and observed that Liquid X started to drip into the container.

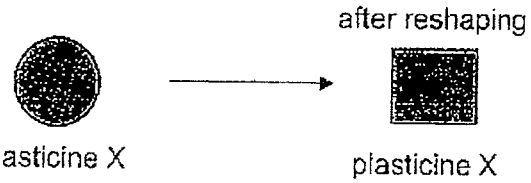
Explain how her action allowed the Liquid X to start dripping into the container. [1]

Marks : / 3

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

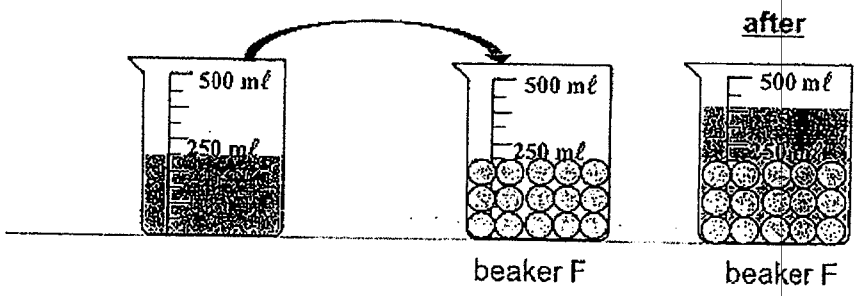
29. (a) John had a piece of plasticine X. He measured the volume and mass of the plasticine X and recorded it in the table below. He reshaped plasticine X into another shape as shown above. He measured its mass and volume again.



Fill in the blanks in the table below with the correct mass and volume of plasticine X after it was reshaped. [1]

	before reshaping	after reshaping
Mass (g)	35	(i)_____
Volume (ml)	10	(ii)_____

(b) John filled a beaker F with identical plasticine balls up to the 250 ml mark as shown below. He then poured 250 ml of water into the beaker F.



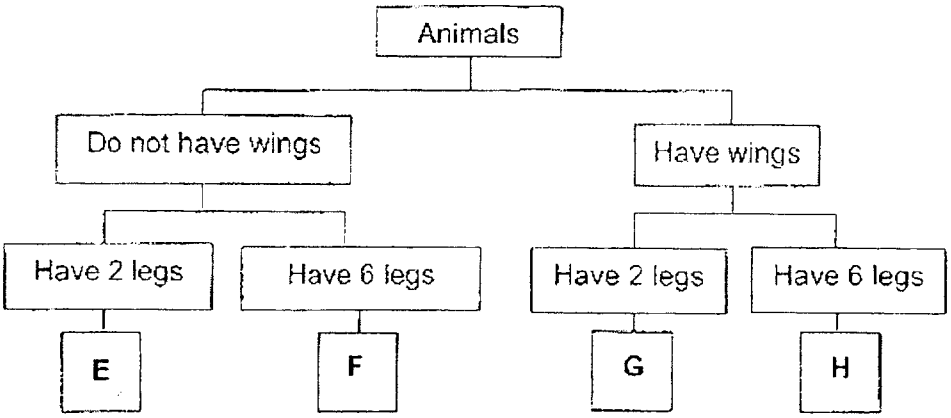
John observed that the final volume in beaker F was less than 500 ml. Explain his observation. [2]

Marks : /3

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

30. Study the classification diagram below.



(a) Based on the classification diagram above, state two characteristics of Animal G. [2]

(i) _____

(ii) _____

(b) Identify the group of animals that F belongs to. [1]

_____

(c) Both animals F and H belong to the same animal group.
State another characteristic of this group of animals. [1]

_____

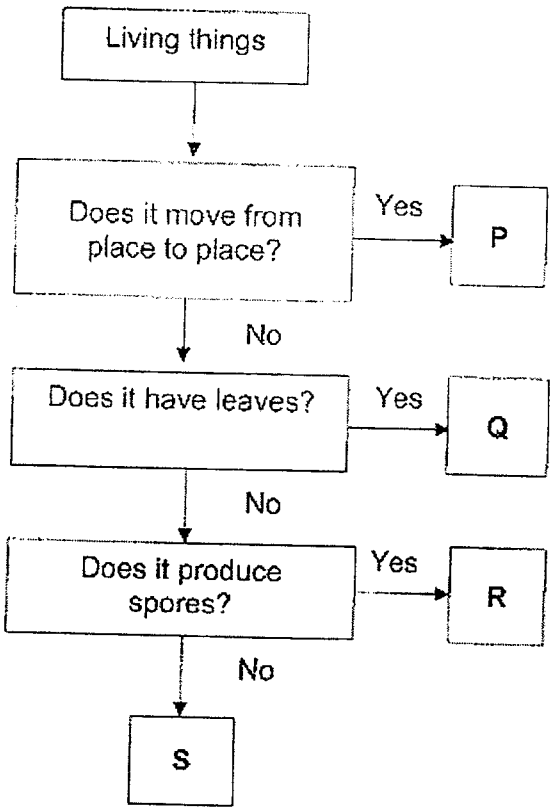
_____

Marks : ____ / 4

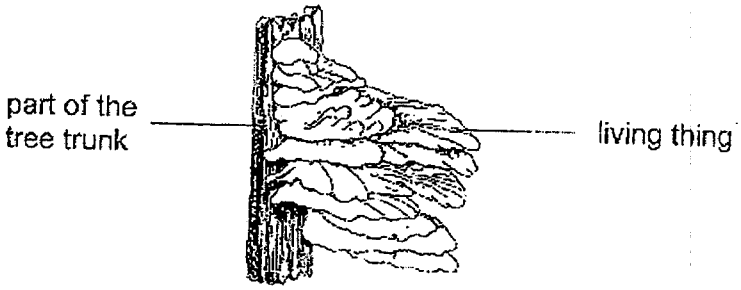
More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

31. Study the flowchart below.



(a) Study the diagram below.



Based on the flowchart above, which living thing P, Q, R or S, represents the living thing in the diagram? [1]

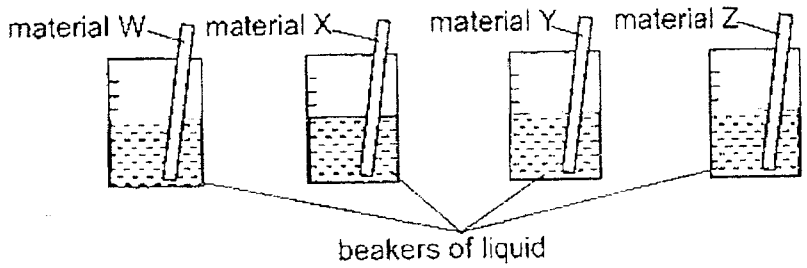
(b) Based on the diagram, how does the living thing in (a) get its food? [1]

Marks : / 2

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

32. Yuki placed four similar strips of different materials, W, X, Y and Z into four beakers containing the same volume of liquid as shown below.



She recorded the volume of the liquid left in each beaker on the table below after one hour.

Material	W	X	Y	Z
Volume of liquid left in each beaker (ml)	5	1	3	7

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

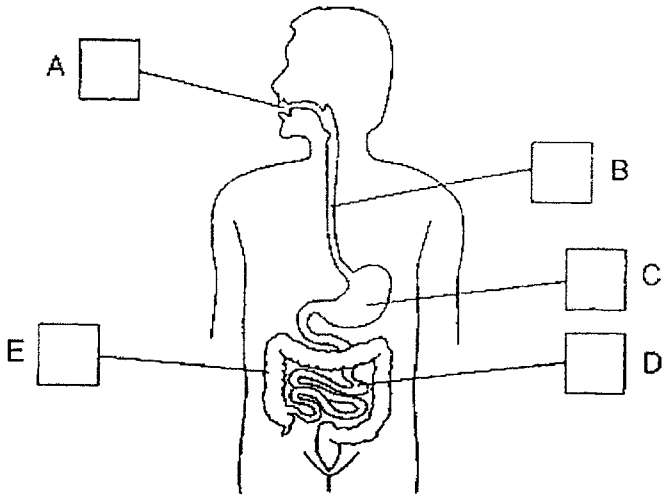
(b) Based on the results above, which one of the materials, W, X, Y or Z is the most suitable to make a bath towel? Explain why. [2]

Marks : /3

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

33. The diagram below shows the human digestive system.



(a) Tick (✓) only in the boxes provided above where digestion takes place. [1]

(b) Based on the diagram above, identify organs D and E and the substance each organ absorbs. [2]

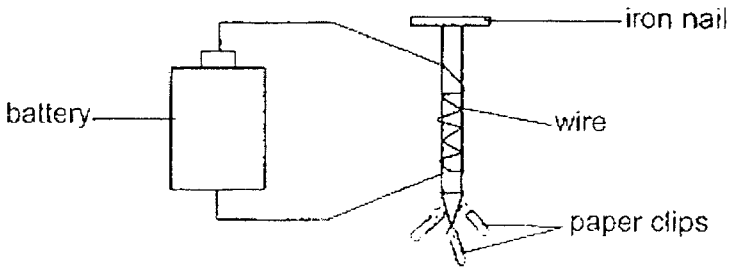
Organs	Name of organ	Substance absorbed by organ
D		
E		

Marks : / 3

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

34. Colin prepared the set-up as shown below.



(a) What will Colin observe if the battery is removed from the set-up shown above? [1]

_____

_____

(b) Suggest 2 ways that Colin can change the set-up to make the iron nail attract more paper clips. [2]

(i) _____

(ii) _____

Marks : / 3

~ END OF PAPER ~

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

SCHOOL : MAHA BODHI PRIMARY SCHOOL
LEVEL : PRIMARY 4
SUBJECT : SCIENCE
TERM : 2022 SA1

SECTION A

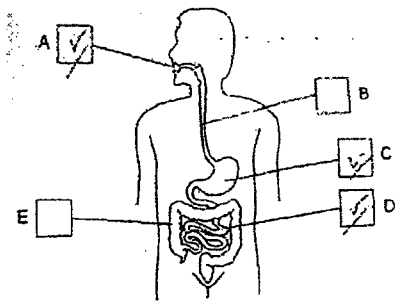
Q 1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
1	2	1	4	4	2	1	3	1	4
Q 11	Q12	Q13	Q14	Q15	Q16	Q17	Q18	Q19	Q20
2	1	3	4	2	3	3	4	4	1
Q 21	Q22	Q23	Q24						
3	1	3	2						

SECTION B

Q25)	a) Part X absorbs sunlight to make food for the tomato plant. b) The flowers of the plant would slowly develop into the fruits of the plant. c) i) Part W holds the plant firmly to the ground to prevent it from uprooting. ii) Another function of Part W is to absorb water for the plant. If the plant has more of Part W, it will be able to absorb more water in a shorter period of time.
Q26)	a) i) There are four stages in the life cycle of Insect V. ii) Insect V would take around 18days to become an adult after the egg hatched. b) i) Egg , larva and pupa ii) When mosquitoes reach the adult stage, they would be able to fly higher than we can reach.
Q27)	a) Gas b) i) decrease ii) increase

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

<table>
<tr><td>Q28)</td><td>a) Air cannot escape for the liquid X to enter the container.
b) Air can escape. Liquid X enters to replace the space previously occupied by the air.</td></tr>
<tr><td>Q29)</td><td>a) i) 35
ii) 10
b) There are gaps in between each plasticine ball. As liquid has no definite shape, it can take up the space in between the plasticine balls.</td></tr>
<tr><td>Q30)</td><td>a) i) Have wings
ii) Have 2 legs
b) Insects
c) This group of animals have three body parts.</td></tr>
<tr><td>Q31)</td><td>a) Living thing R
b) Living thing R gets food from the part of the tree trunk that it is attached to.</td></tr>
<tr><td>Q32)</td><td>a) Ability to absorb water
b) Material X because the volume of liquid left in the beaker is the least, so it absorbs the most amount of water.</td></tr>
<tr><td>Q33)</td><td>a)


b)
<table>
<tr><td>D</td><td>small intestine</td><td>digested food</td></tr>
<tr><td>E</td><td>large intestine</td><td>water</td></tr>
</table>
</td></tr>
</table>

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

34)a) The paper clips will drop.

b)i)Coil more rounds of wire around the iron nail.

ii)Add more batteries to the set-up.

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com

More papers available at www.testpapersfree.com

Downloaded from SingaKids.com