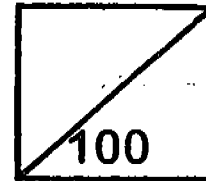




SA2

**Rosyth School**  
**Second Semestral Assessment for 2005**  
**SCIENCE**  
**Primary 3**



Total

Name: \_\_\_\_\_ Marks: \_\_\_\_\_

Class: Pr \_ \_\_\_\_ Register No. \_ \_\_\_\_ Duration: 1 h 30 min

Date: 27/10/05 Parent's Signature: \_\_\_\_\_

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## Booklet A

### Instructions to Pupils:

1. Do not open the booklet until you are told to do so.
2. Follow all instructions carefully.
3. This paper consists of 2 booklets, Booklet A and Booklet B.
4. For questions 1 to 30 in Booklet A, shade the correct ovals on the Optical Answer Sheet (OAS) provided using a 2B pencil.
5. For questions 31 to 46, give your answers in the spaces given in the Booklet B.

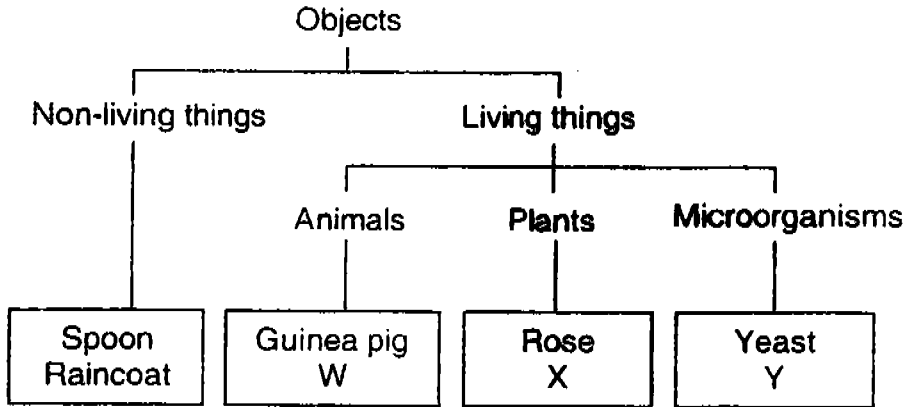
	Maximum	Marks Obtained
Booklet A	60 marks	
Booklet B	40 marks	
Total	100 marks	

\* This booklet consists of 14 pages . (pg. 1 to 14)

**PART I (60 marks)**

For each question from 1 to 30, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). **Shade the correct oval (1, 2, 3, or 4) on the Optical Answer Sheet.**

1. Study the classification diagram below.



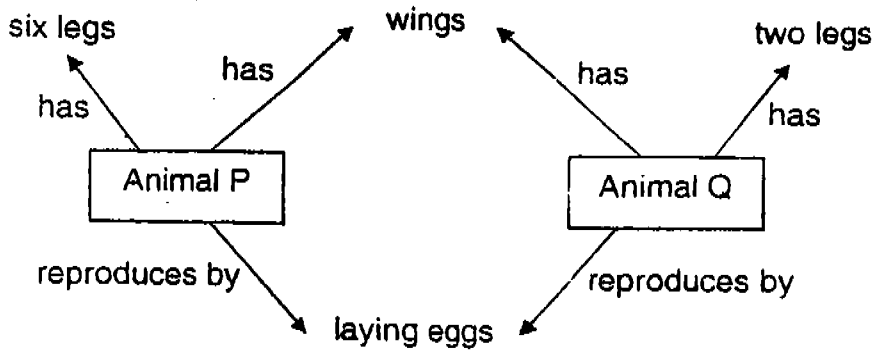
Which one of the following correctly represents objects W, X and Y?

	W	X	Y
(1)	Polar Bear	Angsana tree	Ant
(2)	Turtle	Money Plant	Mosquito
(3)	Prawn	Cactus	Bacteria
(4)	Duck	Water lily	Termite

2. Which one of the following statements about microorganisms is **not true**?

- (1) Microorganisms can only be seen using a microscope.
- (2) Some microorganisms are harmful and some are useful.
- (3) Microorganisms only feed on dead plants and animals.
- (4) Microorganisms live in air, water, soil or on the bodies of plants and animals.

3. Study the diagram below carefully.

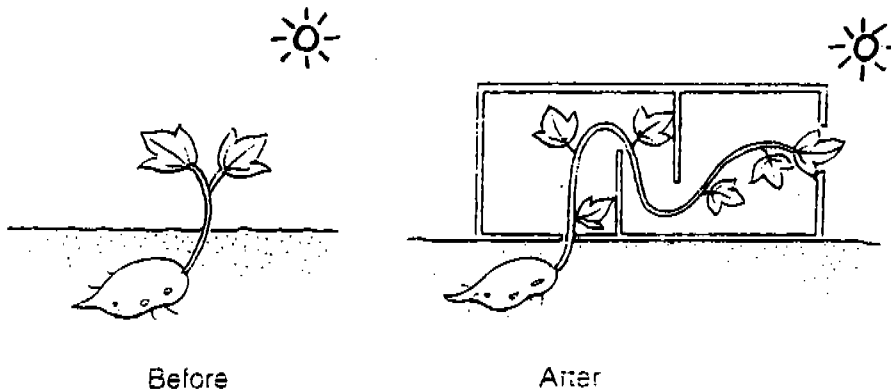


Which one of the following are animals P and Q most likely to be?

	P	Q
(1)	Cockroach	Bee
(2)	Grasshopper	Penguin
(3)	Peacock	Butterfly
(4)	Millipede	Parrot

2  
(3)

4. Mrs Lim grew a sweet potato plant in the ground as shown in the diagram below. She placed a specially constructed wooden box over the plant and left it for a week.



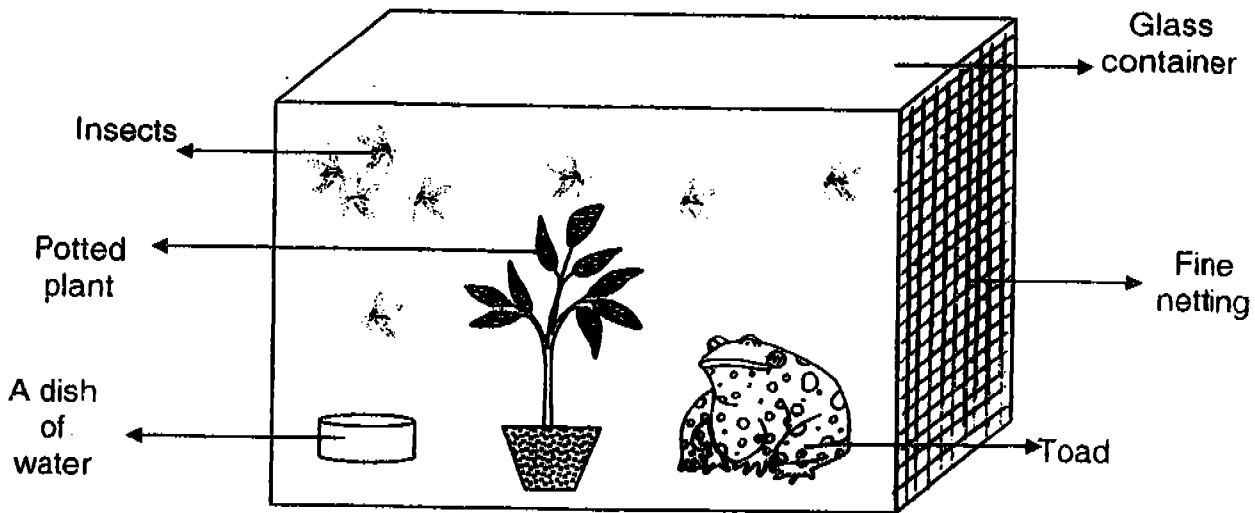
What can she conclude from the above observation?

- A : The sweet potato plant can grow.
- B : The sweet potato plant can move on its own.
- C : The sweet potato plant responds to sunlight.

~~(C)~~

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

5. A toad was placed in a glass container with some insects and a pot of green plant as shown in the diagram below.



At the end of the day, what is most likely to happen to the number of insects and the weight of the potted plant?

	Number of insects	Weight of plant
(1)	Decreases	Decreases
(2)	Remain the same	Remain the same
(3)	Remain the same	Decreases
(4)	Decreases	Remain the same

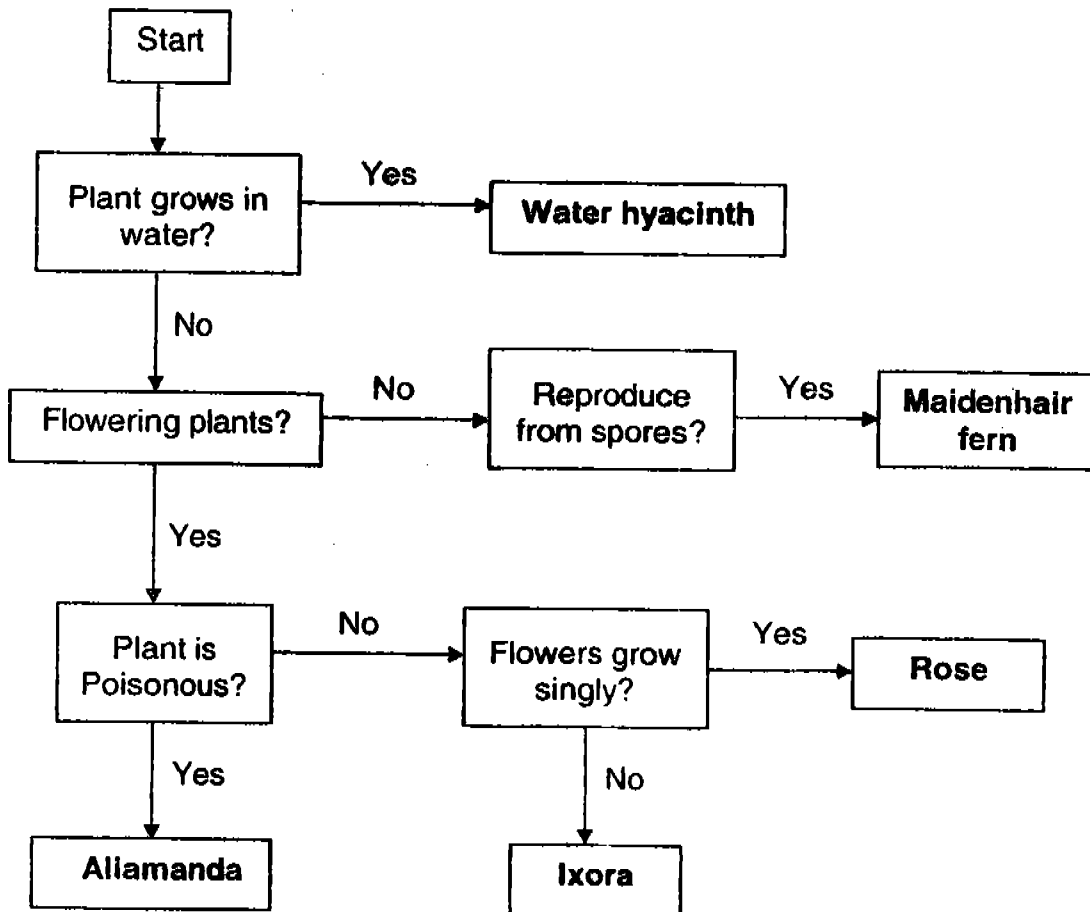
6. Study the table below carefully.

	Plants			
	E	F	G	H
Produces flowers	✓	✓	×	×
Reproduces by spores	×	×	✓	×
Grows in water	✓	×	×	✓

Which letter (E, F, G or H) best represents bird's nest fern?

- (1) E                                      (2) F  
 (3) G                                      (4) H

7. Study the flow chart below carefully.



Which one of the following plants has been wrongly placed in the flow chart?

- |                     |                    |
|---------------------|--------------------|
| (1) Maidenhair fern | (2) Rose           |
| (3) Ixora           | (4) Water hyacinth |

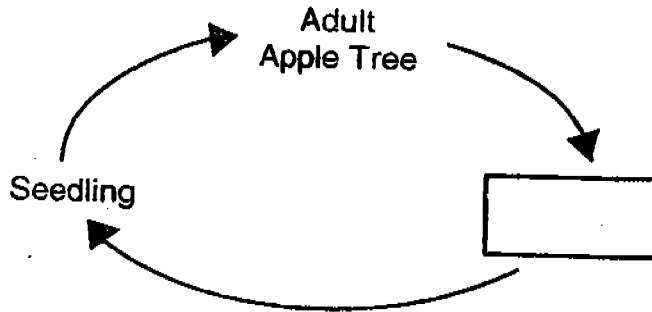
8. Which one of the following does not follow a cycle?

- (1) The growth of a rambutan tree.
- (2) The change in weight of a person.
- (3) The change in colours of the traffic lights.
- (4) The change of the four seasons in a year.

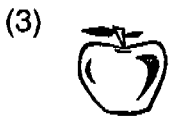
9. Which pair of the following animals go through the same number of stages in their life cycles?

- (1) Zebra and monkey
- (2) Zebra and grasshopper
- (3) Butterfly and monkey
- (4) Butterfly and grasshopper

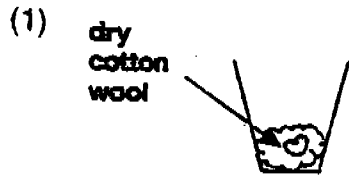
10. The diagram below shows the life cycle of the apple tree.



Which one of the following completes the life cycle of the apple tree?



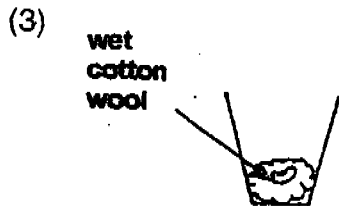
11. Which one of the following shows the best conditions for a seed to germinate into a seedling?



*Place under bright light*



*Place in a dark cupboard*



*Place in the refrigerator*



*Place on an open shelf*

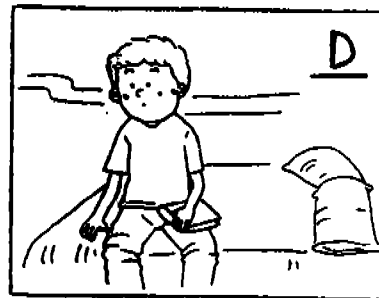
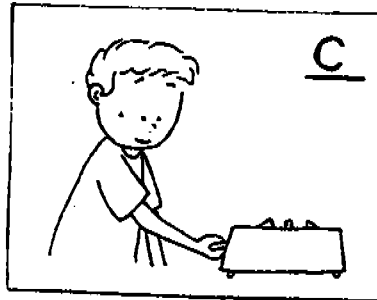
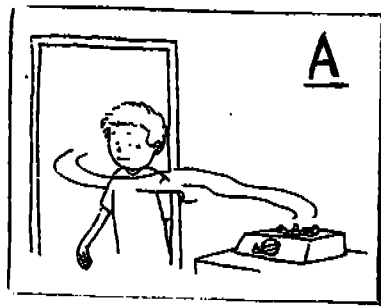
12. Which one of the following cannot be inherited from parents?

- |                       |                        |
|-----------------------|------------------------|
| (1) Blood type        | (2) Fingerprints       |
| (3) Rolling of tongue | (4) Colour of the eyes |

13. Which one of the following is a simple system?

- |                   |                    |
|-------------------|--------------------|
| (1) A shark       | (2) A computer     |
| (3) A Papaya tree | (4) A water bottle |

14. The pictures below show four actions taken by John when he sensed something was wrong.



Which one of the following shows the correct order of the above actions?

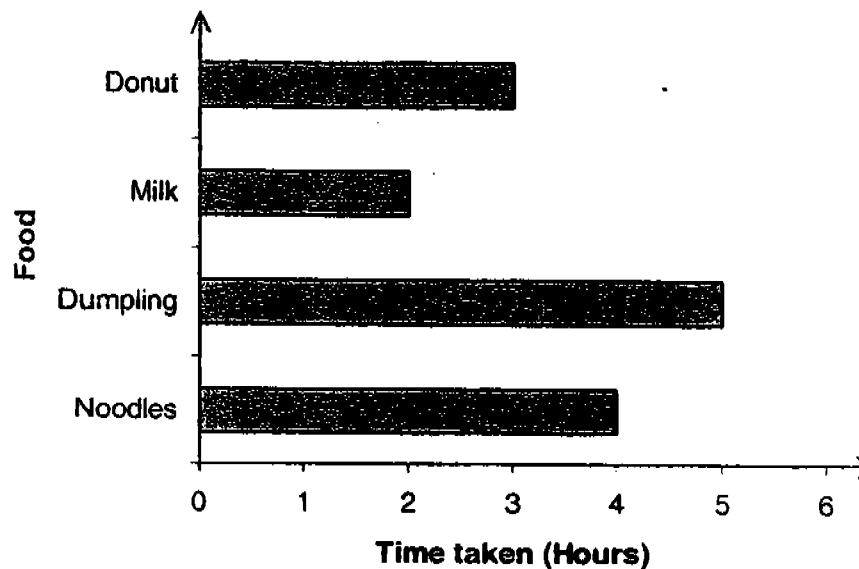
- (1) A → C → B → D  
 (2) B → D → C → A  
 (3) C → A → D → B  
 (4) D → B → A → C
15. A group of children were walking through the jungle. Suddenly, they fell into a dark hole and there was little fresh air. They all felt suffocated and were gasping for air.
- Which one of the following correctly represents the body system that takes in oxygen for the body?
- (1) Skeletal system                      (2) Digestive system  
 (3) Circulatory system                (4) Respiratory system
16. What is the function of the digestive system?
- (1) It gets rid of unwanted food.  
 (2) It breaks down food into simple substances.  
 (3) It carries away waste products from the body.  
 (4) It changes digested food into energy for the body.



17. In which of the following organs are digestive juices added to the food you eat?

- (1) Mouth, gullet and small intestine
- (2) Mouth, stomach and small intestine
- (3) Gullet, stomach and small intestine
- (4) Gullet, small intestine and large intestine

18. The graph below shows the time taken for the body to digest four different types of food.



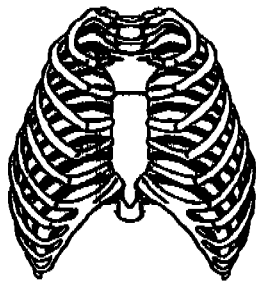
Which food took the longest time for the body to digest?

- (1) Milk
- (2) Noodles
- (3) Dumpling
- (4) Donut

19. Which one of the following statements about our bones is not true?

- (1) Bones meet to form joints.
- (2) All our bones are of the same size.
- (3) Some of our bones help us to move.
- (4) The bones in our body are connected to one another.

20. The diagram below shows a part of the skeletal system.

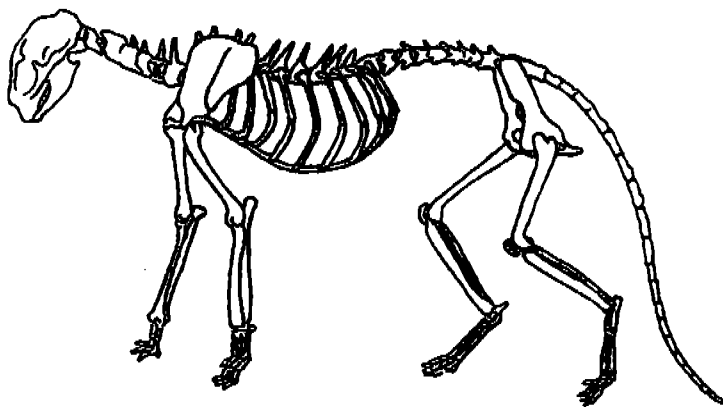


Which of the following organs does it protect?

- A : Heart
- B : Lungs
- C : Stomach

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

21. The diagram below shows the skeleton of an animal.



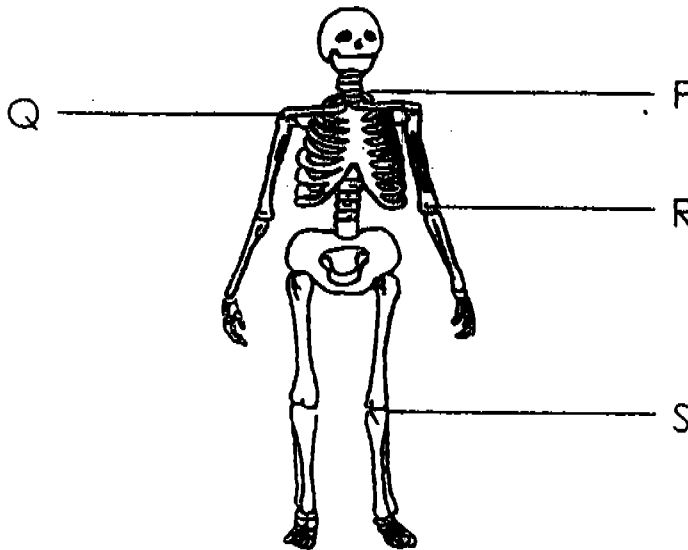
Based on only what you see, which one of the following statements is most likely true about this animal?

- (1) It has a long tail.
- (2) It is able to run fast.
- (3) It is an animal eater.
- (4) It is the skeleton of a cat.

22. Which two actions listed below make use of arm and hand muscles?

- (1) Smiling and winking
- (2) Drawing and writing
- (3) Waving and shouting
- (4) Breathing and painting

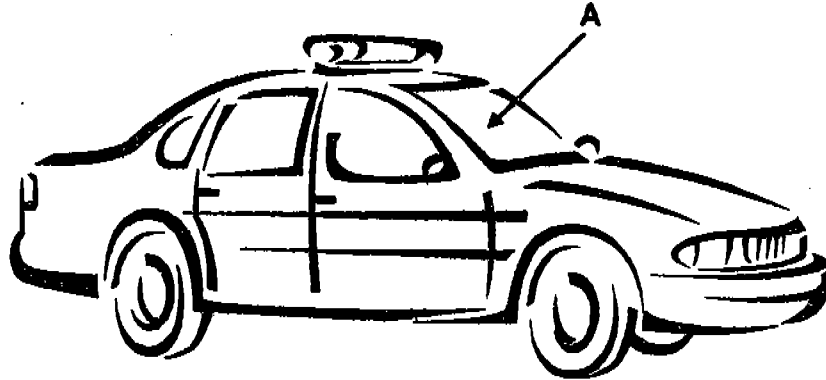
23. Look at the diagram below.



Which parts of the body allow circular movements?

- (1) P and Q only
  - (2) R and S only
  - (3) P, Q and R only
  - (4) P, Q, R and S
24. John did an experiment to find out the properties of an object. He hit the object and it became flat. He dropped the object from a height but it did not break. Which one of the following was likely to be the object he was testing?
- |              |                          |
|--------------|--------------------------|
| (1) A mirror | (2) A ball of plasticine |
| (3) A brick  | (4) A tennis ball        |

25. The picture below shows a car.

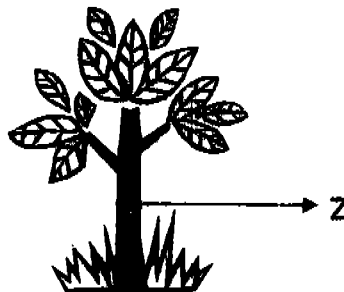


Part A of the car is made of glass. What are the possible reasons why part A is made of this material?

- A : Glass is waterproof.
- B : Glass is transparent.
- C : Glass is cheaper than plastic.
- D : Glass is heavier than plastic.

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

26. What is/are the function(s) of the part marked "Z" as shown in the diagram below?



- A: It absorbs nutrients and water from the soil.
- B: It supports the branches and leaves of plants.
- C: It carries water from the roots to other parts of the plant.
- D: It carries nutrients from the roots to other parts of the plant.

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

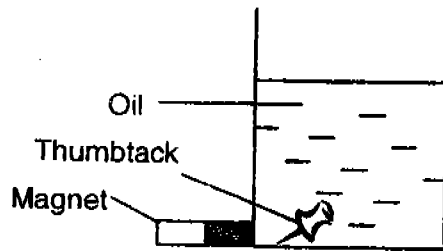
27. Many of the fruits we eat have **seeds** inside them. The papaya has many small seeds and the mango has one big seed. Why do you think plants have seeds?

- (1) It provides nutrients for the fruits.
- (2) The fruit helps to protect the seeds.
- (3) The seeds can grow into new plants. ✓
- (4) Fruits are eaten by birds and seeds are passed out as waste

28. Casey wanted to remove the thumbtack in each of the container as shown in the diagram below. All the containers contained an equal amount of oil. He used a magnet and moved it along the outer wall of the container to bring the thumbtack up to the rim of the container.

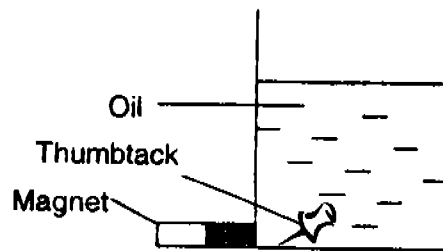
Which one of the containers would he find difficulty in removing the thumbtack?

(1)



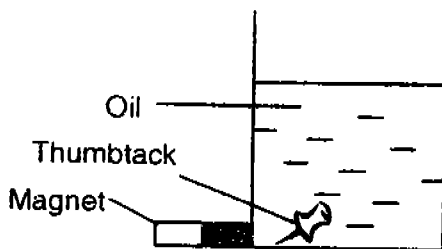
Iron Container

(2)



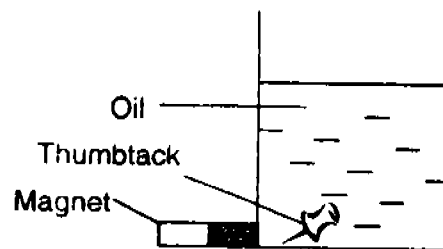
Plastic container

(3)



Glass container

(4)

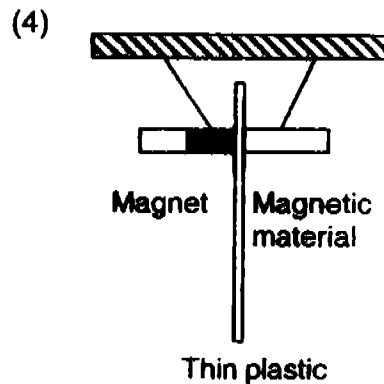
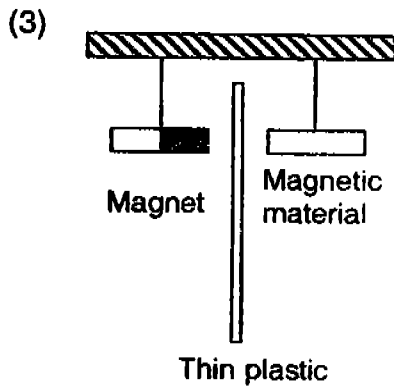
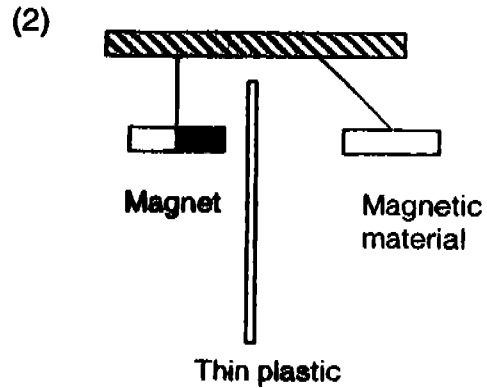
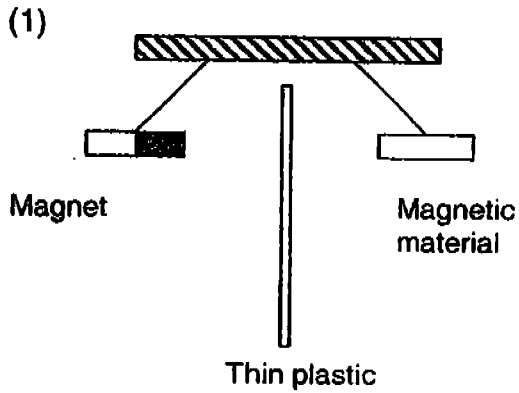


Styrofoam container

(1)

29. A bar magnet and a piece of magnetic material are suspended by strings and separated by a thin plastic.

Which one of the following diagrams would correctly represent the result?



30. Tai Ping conducted an experiment with 4 magnets labelled R, S, T and U. He brought one magnet at a time near a container of paper clips. He recorded the number of paper clips attracted by each magnet as shown in the table below.

Then he heated each magnet over a candle flame for 10 minutes. After which, he brought the magnet near the container of paper clips and recorded the number of paper clips attracted to the magnet.

Magnet	Number of paper clip	
	Before heating	After heating
R	5	0
S	11	1
T	3	0
U	8	1

Based on the results shown in the table, what could he conclude from the experiment?

- A : Magnet T is the strongest magnet.  
 B : Magnet S is the strongest magnet.  
 C : Only magnets R and T have lost their magnetism after being heated over a candle flame.  
 D : All magnets have lost their magnetism after being heated over a candle flame.

(1) A and C only

(2) B and D only

(3) A and D only

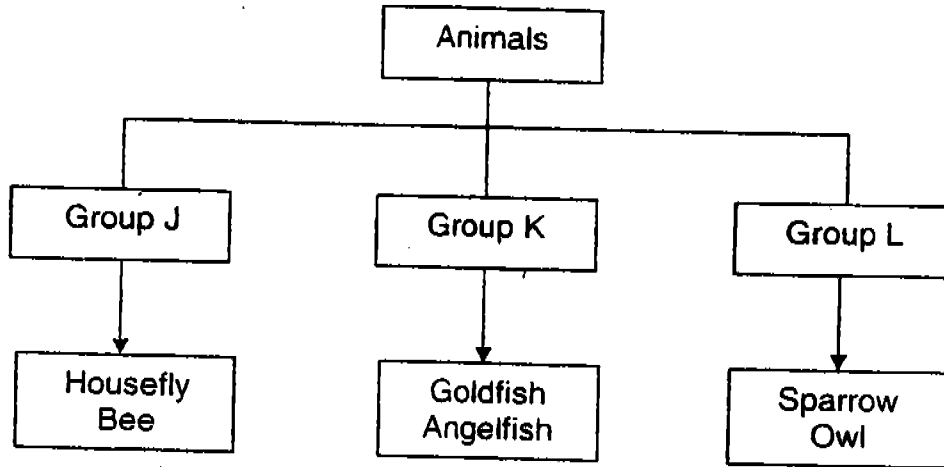
(4) B and C only

End of Booklet A

**PART II (40 marks)**

For questions 31 to 46, write your answers in this booklet.

31. Study the classification table below.



(a) State one similarity between the animals in **Group J** and **Group L**.  
(1 mark)

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(b) State one similarity between the animals in **Group K** and **Group L**.  
(1 mark)

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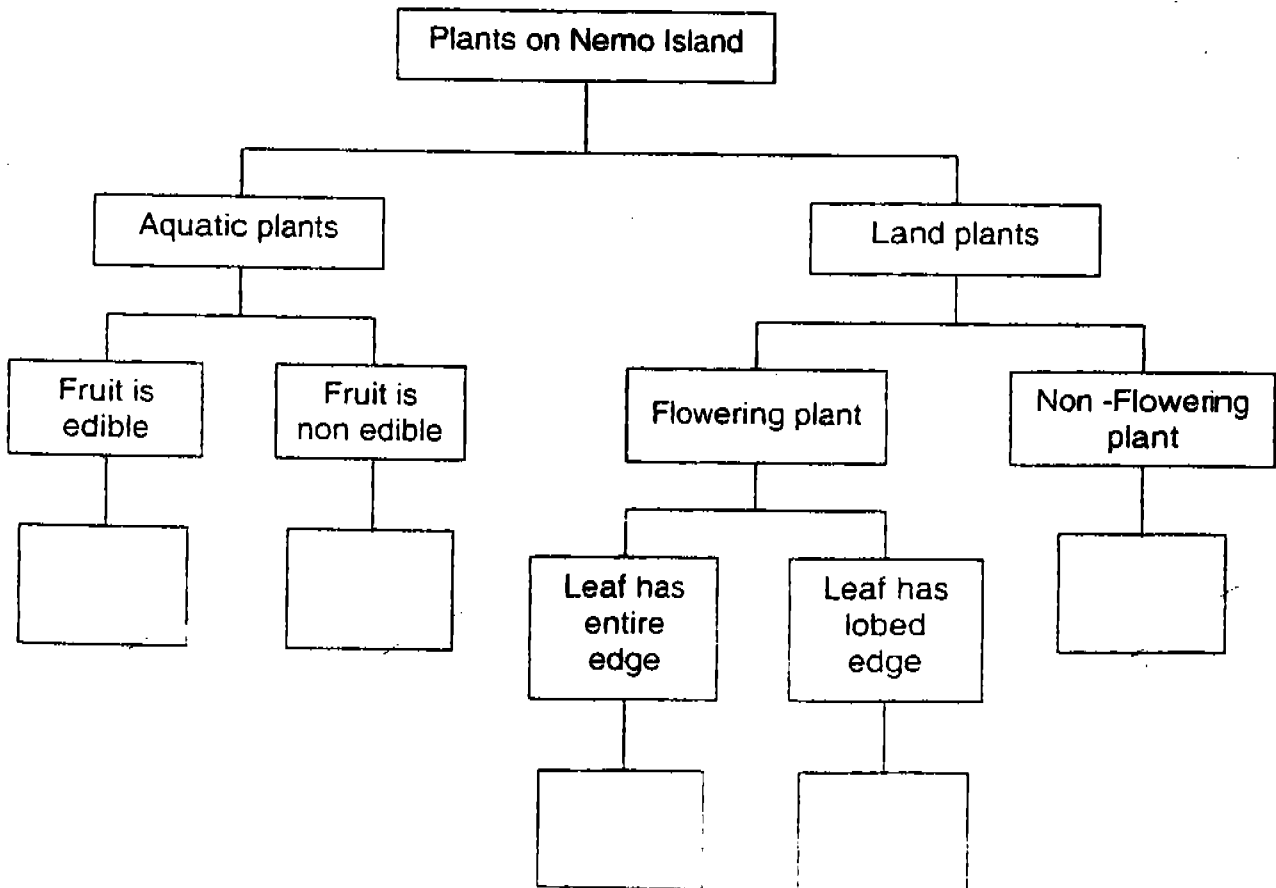
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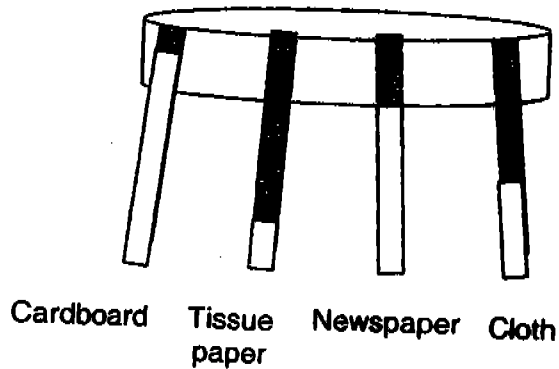
32. Two botanists (people who study plants) went to an island, known as Nemo. They discovered some plants which they had not seen before. They studied the plants carefully and recorded their observations in the table below.

Plant	Type of plant	Leaf	Fruit	Where can the plant be found?
A	Flowering plant	Entire edge	Edible	Land
B	Flowering plant	Lobed edge	Edible	Land
C	Non-flowering plant	Entire edge	Non edible	Land
D	Flowering plant	Lobed edge	Non edible	Water
E	Non-flowering plant	Lobed edge	Edible	Land
F	Flowering plant	Toothed edge	Edible	Water

Based on the observations given in the above table, classify the plants by putting the letters (A to F) in the correct boxes in the classification table below. (3 marks)



33. Mrs Lee placed 4 different objects made of different materials of equal size and thickness in a dish containing blue coloured water. The diagram below shows the results.



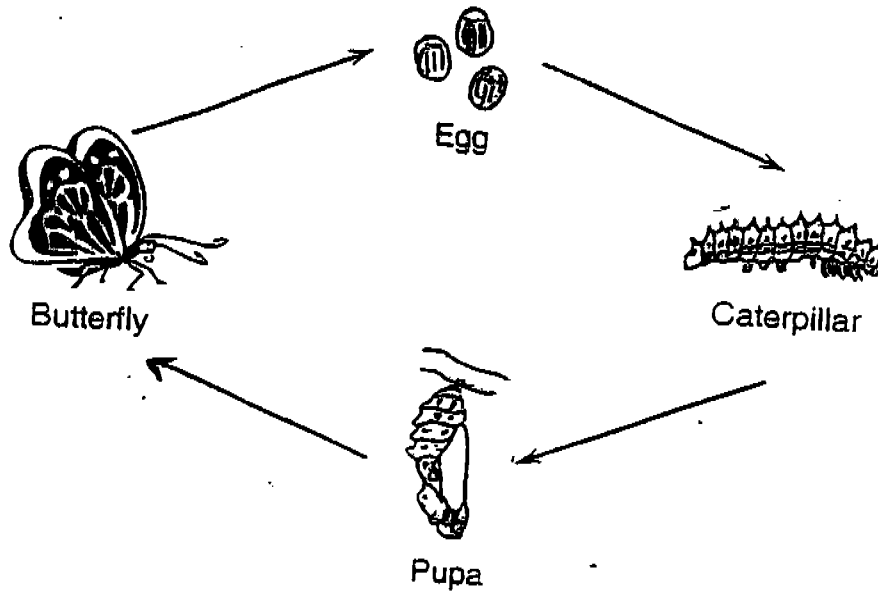
- (a) Arrange the objects according to its ability to absorb water, starting from the **most absorbent**. (1 mark)

Four empty rectangular boxes are provided for the answer. The first box is labeled **Most absorbent** and the last box is labeled **Least absorbent**.

- (b) **Based on the above results**, which object (cardboard, newspaper or cloth) would you use to place over your head to shelter yourself when you are caught in a rain **which occurs suddenly**? (1 mark)

---

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



(a) The body covering of the caterpillar becomes tight as it grows bigger. Which process is the caterpillar undergoing? (1 mark)

---

(b) Write down one difference between the caterpillar and the adult butterfly in their appearance. (Do not compare size.) (1 mark)

---

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(c) Why is the caterpillar considered harmful by farmers? (1 mark)

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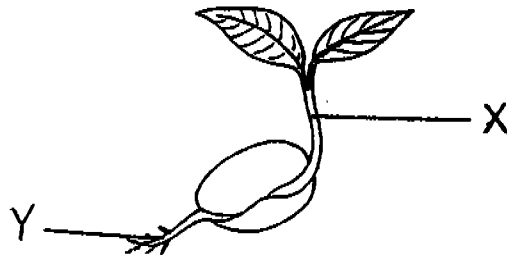
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35. (a) The following statements describe the growth and development of a seed from a seedling to an adult plant.

Number the statements, 1, 2, 3 and 4, to show the correct order of the seed development in the boxes provided. (1 mark)

- The first shoot appears from the seed.
- The flowers bloom.
- The plant starts to make its own food.
- The root appears from the seed.

- (b) The picture below shows a seedling.

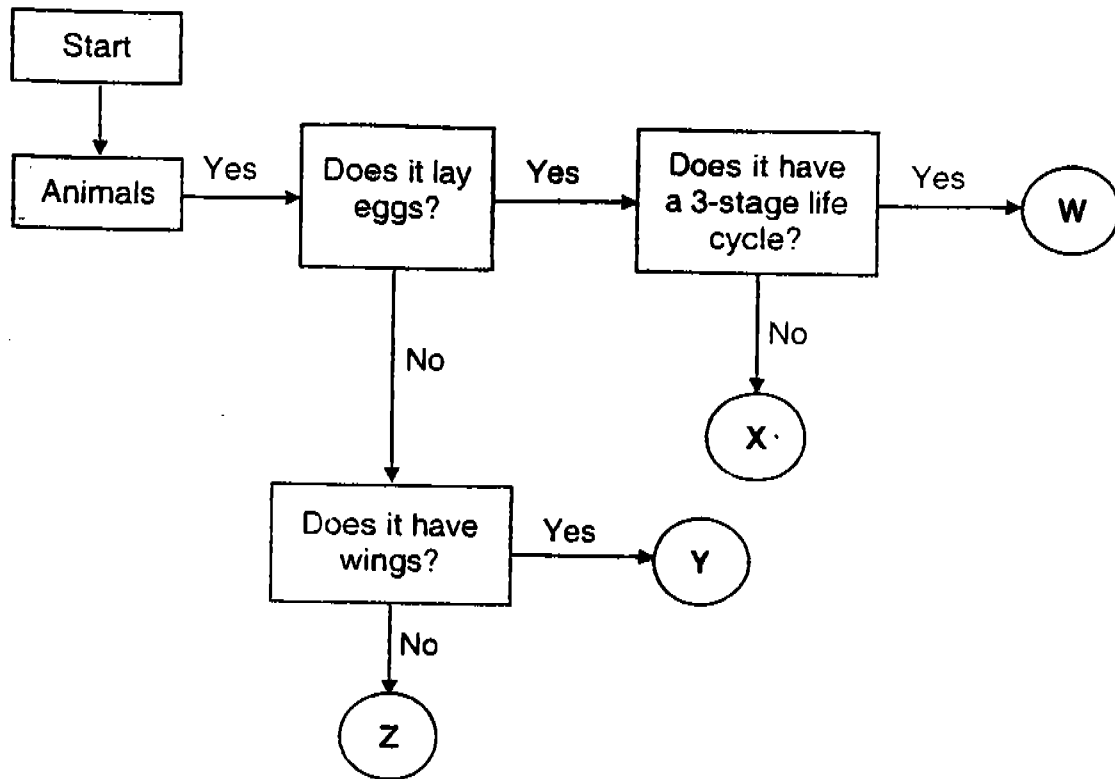


Name the parts that are labelled "X" and "Y". (1 mark)

X : \_\_\_\_\_

Y : \_\_\_\_\_

36. Study the flow chart below carefully.



Identify the animals in the flow chart using the words given in the box below. (4 marks)

Bat	Chicken	<del>Cockroach</del>	Rabbit
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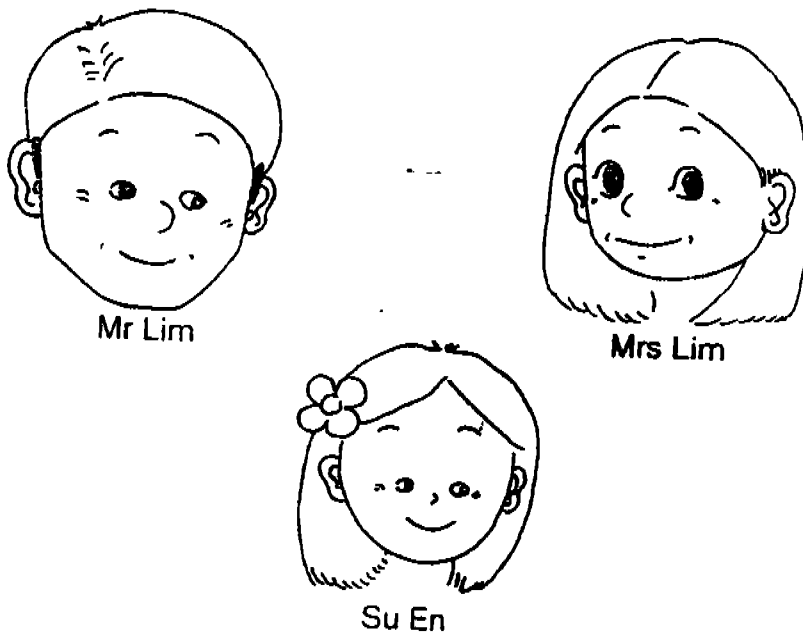
W : \_\_\_\_\_

X : \_\_\_\_\_

Y : \_\_\_\_\_

Z : \_\_\_\_\_

37. The picture below shows the Lim family. Mr and Mrs Lim are husband and wife and Su En is their child.



Each statement below describes the Lim family. Write "True" or "False" in the boxes provided. (2 marks)

- (a) Mr Lim inherits Mrs Lim's ears.
- (b) Su En inherits the shape of her father's face.
- (c) Mrs Lim passes down her hair length to Su En.
- (d) Mr Lim passes down the shape of his eyes to Su En.


38. Ken and his friends are having a party at the beach. They made the following statements.

Ken : The food from the barbecue smells great!  
 Joel : There's a cool breeze blowing.  
 Sally : It's getting late but Jacey is not here yet.  
 Amy : The pizza is delicious.

In the table below, write down the correct sense organs and the senses used by the children. (3 marks)

	Name of child	Sense organ	Sense
E.g.	Ken	Nose	Smell
	Joel		
	Sally		
	Amy		

39. Fill in each blank with a suitable word. (4 marks)

- (a) Our \_\_\_\_\_ is the largest sense organ in our body.  
 (b) Our circulatory system carries food, water and \_\_\_\_\_ to all parts of the body.  
 (c) A \_\_\_\_\_ joint is found at the knee.  
 (d) \_\_\_\_\_ and bones work together to enable us to move parts of our body.

40. The small and large intestines are part of our digestive system.  
Write down one function of each of the intestines. (2 marks)

(a) The small intestine

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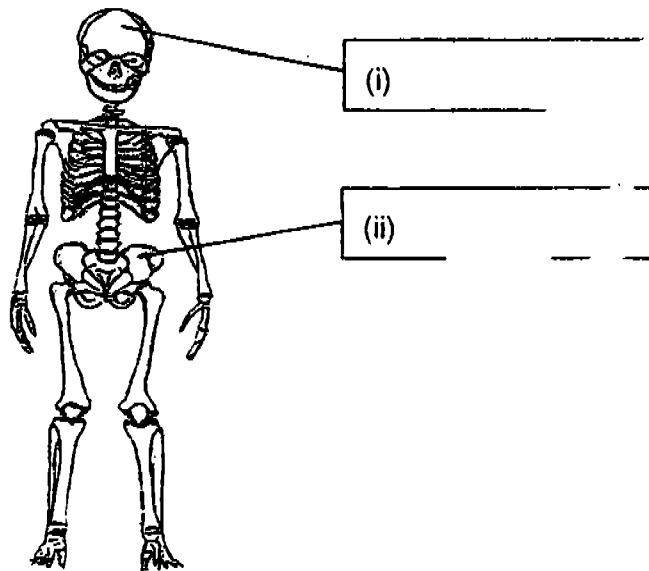
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(b) The large intestine

---

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41. The diagram below shows the skeletal system of the human body.



(a) Write down the names of parts (i) and (ii) in the boxes provided in the above diagram. (1 mark)

(b) Write down one important function of our skeleton. (1 mark)

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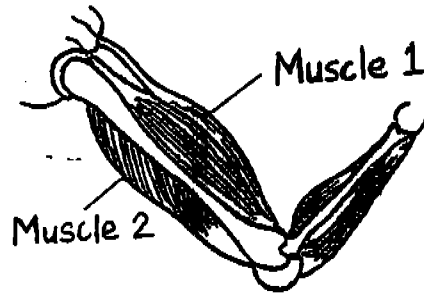
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(Go on to the next page)



42. Look at the two pictures below.

(a)

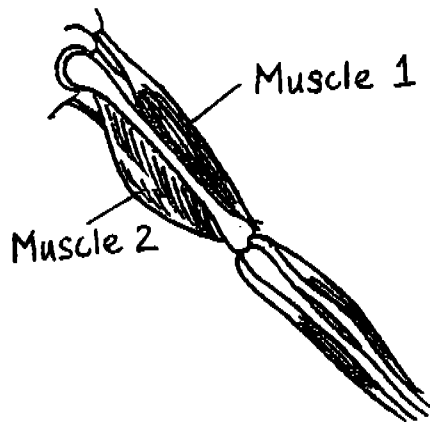


What happens to Muscle 1 and Muscle 2 when you **bend** your arm?  
(1 mark)

---

---

(b)



What happens to Muscle 1 and Muscle 2 when you **straighten** your arm?  
(1 mark)

---

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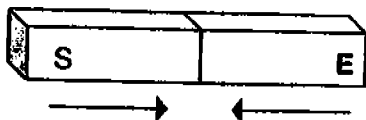
43. Complete the passage below by filling in suitable words in the blanks.  
(3 marks)

Green plants contain a green substance called (a) \_\_\_\_\_  
 which can trap light energy from the (b) \_\_\_\_\_. Light  
 energy is used to combine (c) \_\_\_\_\_ from the air and  
 (d) \_\_\_\_\_ from the ground. As a result, sugar is formed and  
 (e) \_\_\_\_\_ is given off. This process of making food is  
 known as (f) \_\_\_\_\_.

44. The arrows in the diagram below show the directions of movement of the magnets.

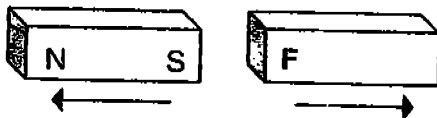
Names the poles of the marked "E" and "F". Take note that *S* indicates the *South Pole* of a magnet while *N* indicates the *North Pole*. (2 marks)

(i)



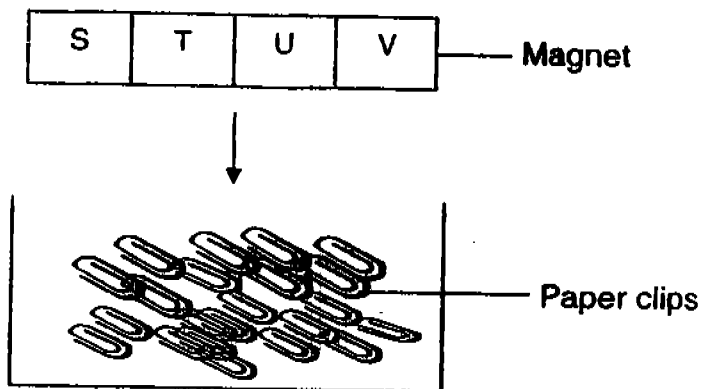
E : \_\_\_\_\_ pole

(ii)



F : \_\_\_\_\_ pole

45. John lowered a bar magnet into a container of paper clips. Before he lifted up the bar magnet, he asked Mei Li to predict the number of paper clips that would be attracted to each of the four parts marked S, T, U and V of a magnet.



Mei Li predicted the number of paper clips at each part to be:

- Part S : 3 paper clips
- Part T : 8 paper clips
- Part U : 11 paper clips
- Part V : 2 paper clips

- (a) Did she make a correct prediction? (1 mark)

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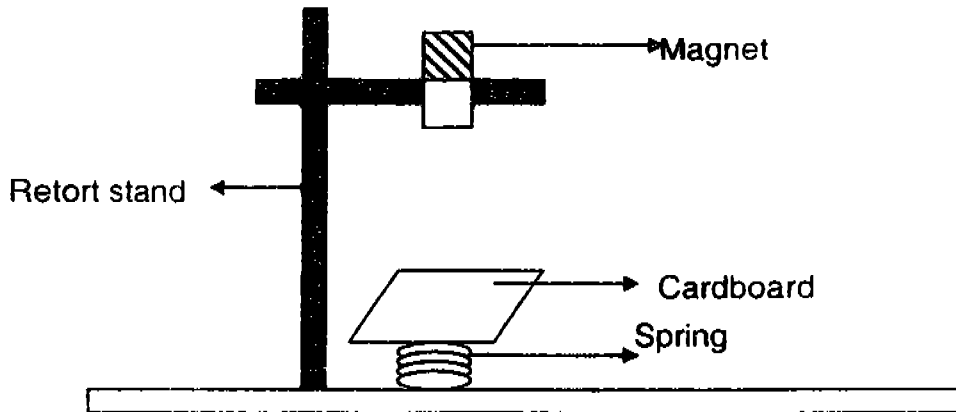
- (b) Explain your answer in (a). (1 mark)

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46. Pei Ying set up an experiment to test 4 objects, W, X, Y and Z as shown in the diagram below.



She taped an object one at a time onto the cardboard and observed what happened to the spring. She recorded her observations in the table below.

Object	Length of spring
W	Increased
X	Increased
Y	No change
Z	Decreased

Based on the results, identify objects W, X, Y and Z using the objects given in the box below. You can only use the objects once. (2 marks)

Aluminium bar	Iron bar	Magnet	Steel Bar
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Object W : \_\_\_\_\_

Object X : \_\_\_\_\_

Object Y : \_\_\_\_\_

Object Z : \_\_\_\_\_

**End of paper**

SMA

**ROSYTH SCHOOL**  
**SECOND SEMESTRAL ASSESMENT FOR 2005**  
**SCIENCE**  
**PRIMARY 3**

- 1) 3                    29) 4  
2) 3                    30)  
3) 2                    31) a) They both lays eggs  
                              b) They both have three stages in life  
                                      cycles.  
4) 4  
5) 4                    32) F        D                    G  
6) 3                                    A        B  
7) 4                    33) a) Tissue    Cloth        Newspaper    Cardboard  
                                      paper  
8) 2                                    b) Cardboard  
9) 1                    34) The process is moulting.  
10) 4                                    b) The adult butterfly have wings but the  
  caterpillar does not have wings.  
11) 2                                    c) The caterpillar eats up the plants the  
  farmers have plant.  
12) 2  
13) 4                    35) a) 2  
14) 4                                    4  
15) 4                                    3  
16) 2                                    1  
17) 3                                    b) X : Shoot  
18) 3                                    Y : Roots  
19) 2                    36) W : Chicken  
20) 2                                    X : Butterfly  
21) 1                                    Y : BAt  
22) 2                                    Z : Rabbit  
23) 1                    37) a) False  
24) 2                                    b) False  
25) 2                                    c) False  
26) 4                                    d) True  
27) 3  
28) 1

- 38) skin            touch  
      eyes            sight  
      tongue        taste
- 39) a) skin  
      b) oxygen  
      c) hinge  
      d) Muscles
- 40) a) It absorbs the digested food into the body blood  
      b) It absorbs excess water from the digested food.
- 41) i) Skull    ii) hip  
      b) It protect our internal organs.
- 42) Muscle 1 contracts and Muscle 2 relaxes.  
      b) Muscle 1 relaxes and muscle 2 contracts.
- 43) a) chlorophyll    b) sunlight    c) carbon dioxide  
      d) water            e) oxygen        f) photosynthesis.
- 44) i) North  
      ii) South
- 45) a) No. She did not make a correct prediction.  
      b) The magnet is always strongest at the poles.
- 46) Iron Bar  
      Steel bar  
      Aluminium bar  
      Magnet