



**NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2 – 2011  
PRIMARY 3**

**SCIENCE**

**BOOKLET A**

**30 Multiple Choice Questions (60 marks)**

**Total Time for Booklets A and B : 1 hour 45 minutes**

**INSTRUCTIONS TO CANDIDATES**

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

**Marks Obtained**

<b>Booklet A</b>		<b>/ 60</b>
<b>Booklet B</b>		<b>/ 40</b>
<b>Total</b>		<b>/100</b>

**Name:** \_\_\_\_\_ (     )     **Class: P 3** \_\_\_\_\_

**Date : 24 October 2011**

**Parent's Signature:** \_\_\_\_\_

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**Section A: (30 x 2marks = 60marks)**

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. Which one of the following groups consists of non-living things only?

- (1) Penguin and owl
- (2) Hammer and eraser
- (3) Duckweed and guppy
- (4) Toadstool and marker

2. Which of the following shows the correct classification of animals?

Group A	Group B	Group C	Group D
Whale	Spider	Seal	Emu
Shark	Butterfly	Penguin	Eagle
Guppy	Ani	Whale	Parrot

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

3. Which one of these objects is made of a different material from the other three objects?

(1)



Tyre

(2)



Hose

(3)



Mug

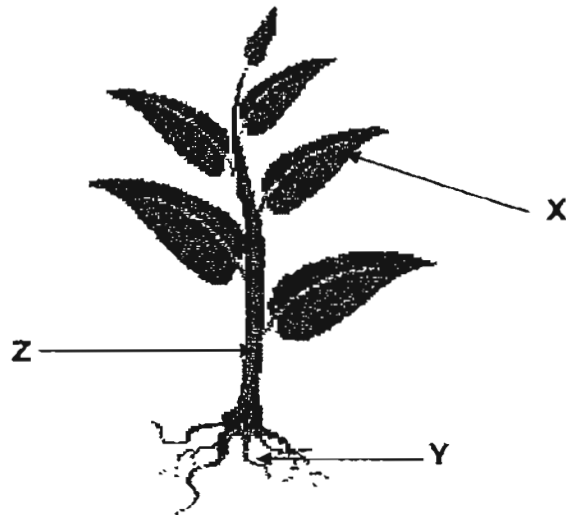
(4)



Balloon

Answer questions 4 to 6 based on the diagram below.

The diagram below shows the parts of a plant labelled X, Y and Z respectively.



4. **Part X** helps the plant to \_\_\_\_\_.

- A reproduce
- B make food
- C absorb water from the surroundings
- D to exchange gases with the surroundings

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

5. Which of the following is true about the part labelled Y?

- (1) It helps the plant to stand upright.
- (2) It helps the plant to reach for sunlight.
- (3) It carries water to the rest of the plant.
- (4) It anchors the plant firmly to the ground.

6. **Part Z** belongs to the \_\_\_\_\_ system of the plant.

- (1) nervous
- (2) digestive
- (3) transport
- (4) reproductive

7. Which of the following sets of organs makes up the human respiratory system?

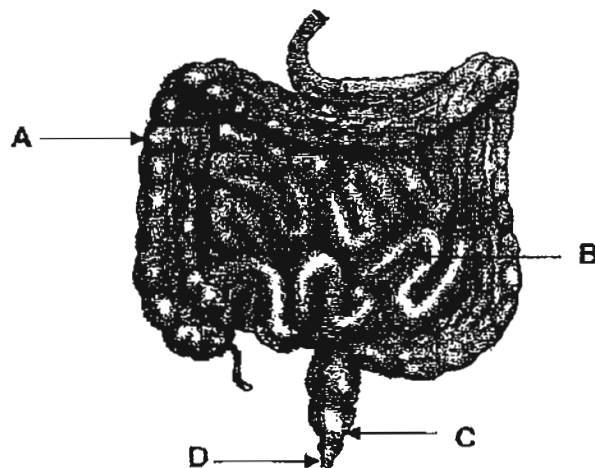
- (1) Lungs and windpipe
- (2) Stomach and intestines
- (3) Heart and blood vessels
- (4) Muscles, joints and bones

8. Which of the following organs in the digestive system **do not** produce digestive juices?

- A Gullet
- B Mouth
- C Large intestine
- D Small intestine

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

9. The diagram below shows parts of the human digestive system:



Which of the above organs stores undigested food before it is passed out?

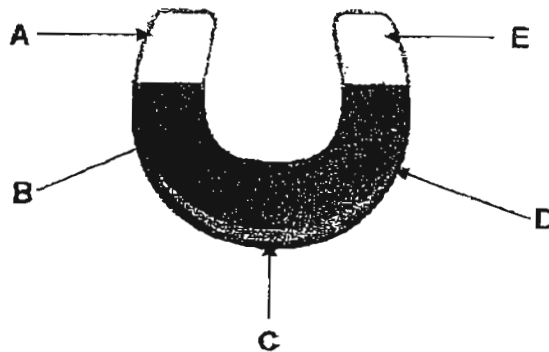
- (1) A
- (2) B
- (3) C
- (4) D

10. Which of the following are magnetic materials?

- A Iron
- B Steel
- C Copper
- D Aluminium

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

11. The picture below shows a horseshoe magnet with its parts labelled A, B, C, D and E respectively.

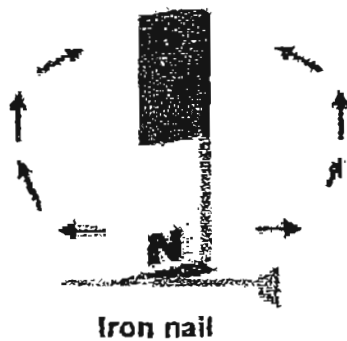


Which of the following shows the part(s) of the magnet with the strongest magnetism?

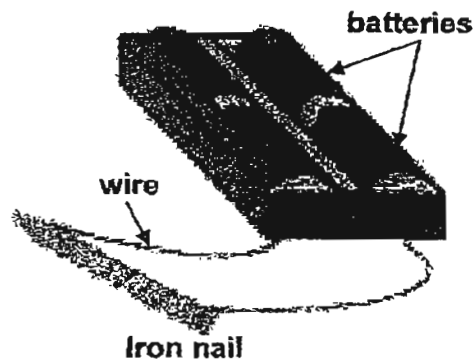
- (1) C only
- (2) A and E only
- (3) B and D only
- (4) A, C and E only

12. Jane tried to turn an iron nail into a temporary magnet using the methods namely A, B, C and D, as shown below.

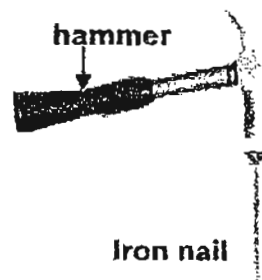
(A)



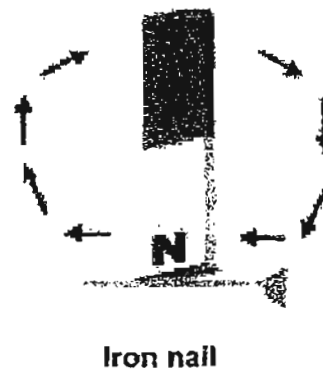
(B)



(C)



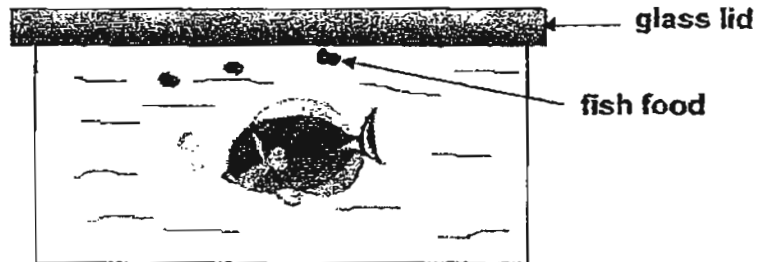
(D)



Which of the following methods show the correct way(s) to magnetise the iron nail?

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

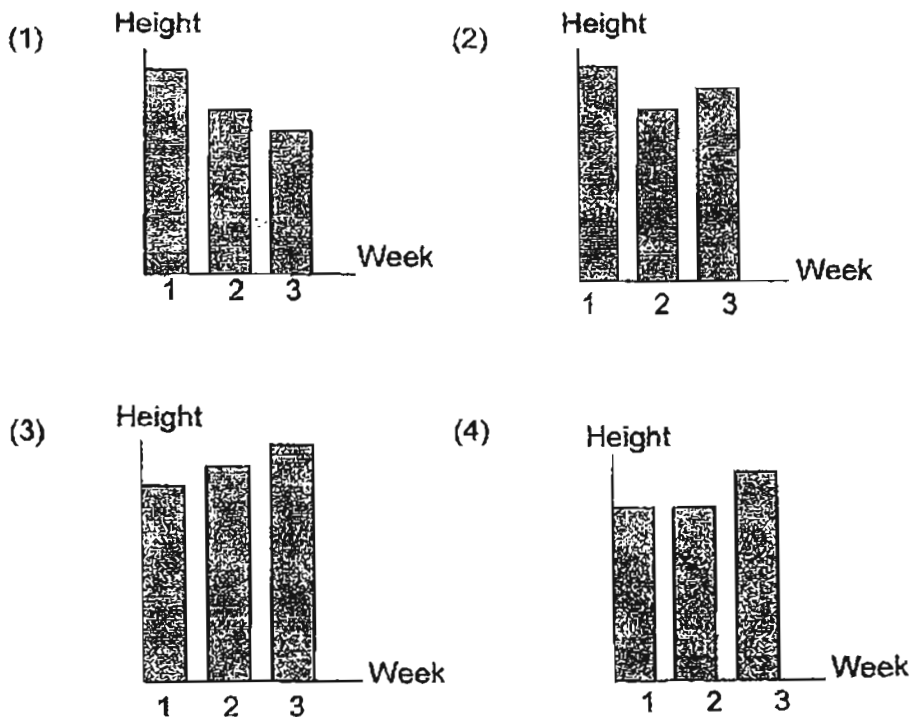
13. Ryan put his fish and some fish food into a small container filled with water as shown in the diagram below. He sealed the container with a glass lid to prevent the fish from jumping out from the container. After two days, the fish was found dead.



Which of the following best explains for the death of his fish?  
The fish did not have enough \_\_\_\_\_.

- (1) air
  - (2) food
  - (3) water
  - (4) space
14. Amelia left a pot of plant in her garden and watered it daily. She recorded the changes in the height of the plant every week for three weeks and plotted a bar graph based on her observations.

Which of the following graphs best shows the results recorded by Amelia?

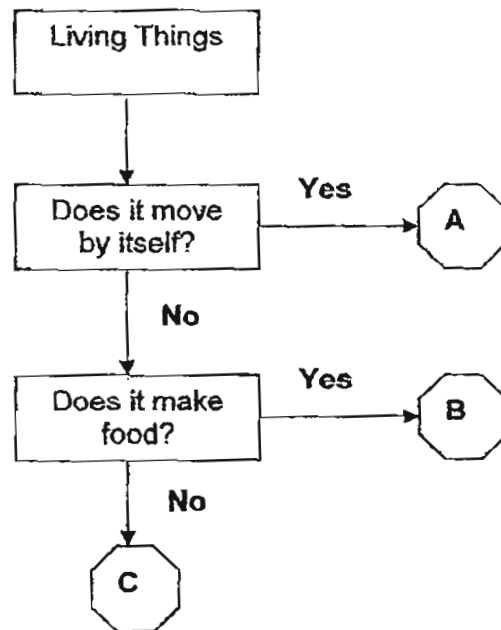


15. Daniel put some guppies and goldfish into an aquarium. The number of guppies and goldfish in the following two weeks was recorded in the table below.

	Week 0	Week 1	Week 2
Number of guppies	3	3	5
Number of goldfish	2	3	4

What could Daniel conclude from the observations recorded in the table?

- (1) Living things can grow.
  - (2) Living things can reproduce.
  - (3) Living things respond to changes around them.
  - (4) Living things need air, food and water to survive.
16. Study the flow chart below carefully.



Which of the following living things in the table below correctly represent A, B and C respectively?

	A	B	C
(1)	Bee	Mould	Morning glory
(2)	Camel	Duckweed	Mushroom
(3)	Caterpillar	Bacteria	Toadstool
(4)	Bacteria	Fern	Lotus



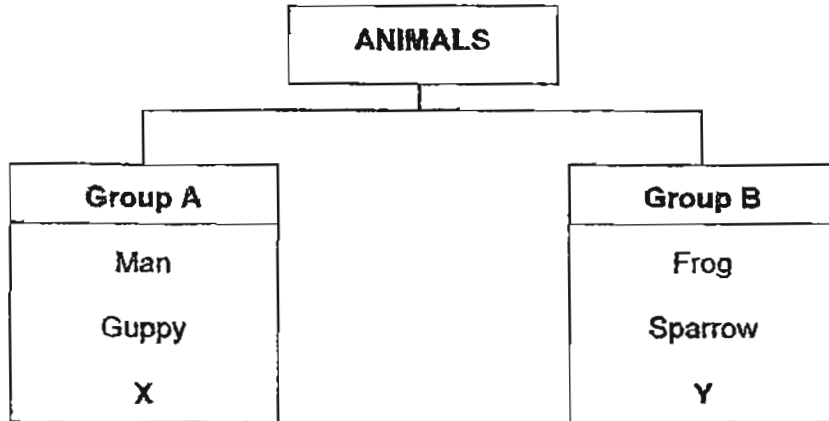
17. The following shows 2 groups of plants classified under Group X and Y respectively.

Group X	Group Y
Balsam	Algae
Rose	Fern
Grass	Moss

Which one of the following best represents Group X and Y respectively?

	Group X	Group Y
(1)	Land plants	Water plants
(2)	Non-poisonous plants	Poisonous plants
(3)	Flowering plants	Non- flowering plants
(4)	Plants with edible fruit	Plant with non-edible fruit

18. The table below shows how some organisms can be classified under Group A and B respectively.



Which one of the following correctly represents organisms X and Y respectively?

	X	Y
(1)	Bat	Ostrich
(2)	Chicken	Butterfly
(3)	Peacock	Seahorse
(4)	Zebra	Dolphin

19. Joshua did some experiments to find out the properties of four different objects. He recorded the results in the table below.

Properties	Objects			
	A	B	C	D
Does it look shiny when polished?		✓		
Can it be attracted to a magnet?		✓		
Does it break when hit with a hammer?	✓			✓
Can it float on water?	✓		✓	
Is it waterproof?	✓	✓		✓

Based on the data in the table, which of the following best represents object A, B, C and D respectively?

	A	B	C	D
(1)	Metal	Sponge	Glass	Plastic
(2)	Sponge	Glass	Plastic	Metal
(3)	Glass	Plastic	Metal	Sponge
(4)	Plastic	Metal	Sponge	Glass

20. Which of the following properties are the reasons for using glass to make fish tank?

- A It is flexible
- B It is water proof
- C It is transparent
- D It breaks when dropped

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

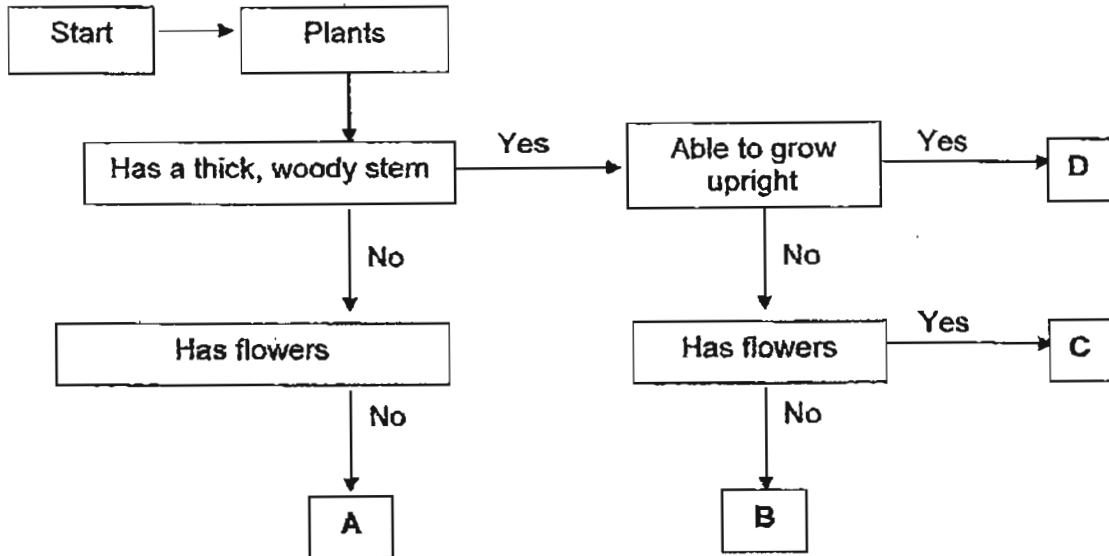
21. The umbrella below is made of different materials, labelled X, Y and Z, that serve different function.



Which of the following shows correctly the properties of material X, Y and Z taken into consideration in making the umbrella?

	Material X	Material Y	Material Z
(1)	Waterproof	Stretchable	Does not bend easily
(2)	Waterproof	Hard	Does not break easily
(3)	Not waterproof	Strong	Does not sink easily
(4)	Not waterproof	Light	Does not break easily

22. The flowchart below shows the characteristics of Plant A, B, C and D.



In which group (A, B, C or D) should the plant below be classified under?

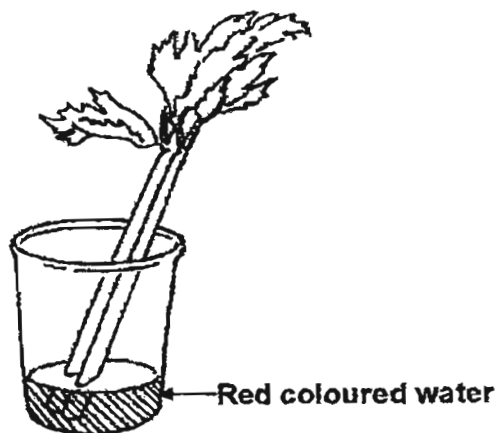


- (1) A
- (2) B
- (3) C
- (4) D

23. Which of the following is classified **incorrectly**?

	Storage root	Underground Stem
(1)	Carrot	Ginger
(2)	Sweet potato	Yam
(3)	Potato	Turnip
(4)	Radish	Water chestnut

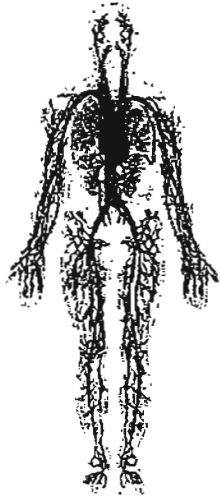
24. Polly put a stalk of celery into a glass of water which contains red coloured water. She added a layer of oil into the glass of water. Next morning, the leaves were observed to turn slightly red. The water level in the glass had also decreased.



What can Polly conclude from her observation?

- (1) The water has evaporated overnight.
- (2) The leaves absorbed moisture from the air.
- (3) The leaves give off water vapour during the night.
- (4) There are tubes in the stem which transport water to the leaves.

25. Which of the following two systems must work together so that the nutrients from the food we take in can be carried to all our body parts?



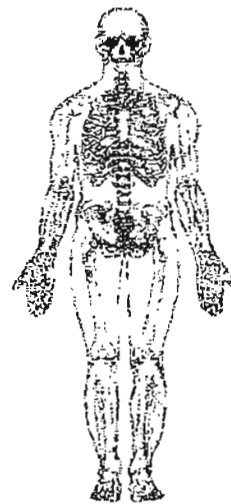
A: (Circulatory System)



B: (Digestive System)



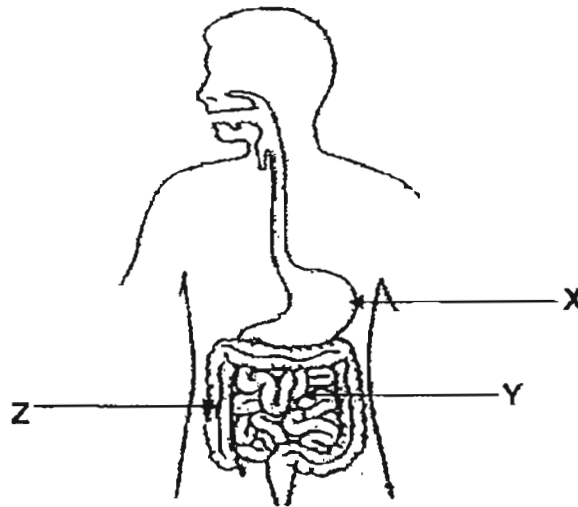
C: (Respiratory System)



D: (Skeletal System)

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

26. Look at the diagram below carefully. Which of the statements best describe what happens to food in the parts labelled X, Y and Z?



	X	Y	Z
(1)	No digestion takes place here.	Most of the water is removed from the undigested food.	Digested food enters the bloodstream.
(2)	Mixes with digestive juices.	Most of the water is removed from the undigested food.	Digested food enters the bloodstream.
(3)	Mixes with digestive juices.	Digested food enters the bloodstream.	Most of the water is removed from the undigested food.
(4)	No digestion takes place here.	Digested food enters the bloodstream.	Most of the water is removed from the undigested food.

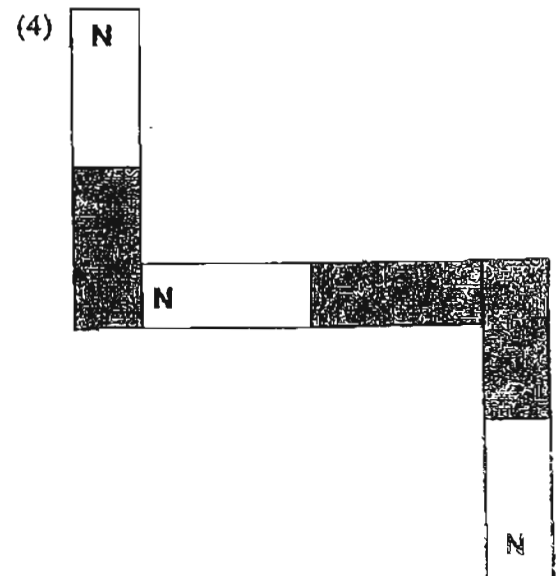
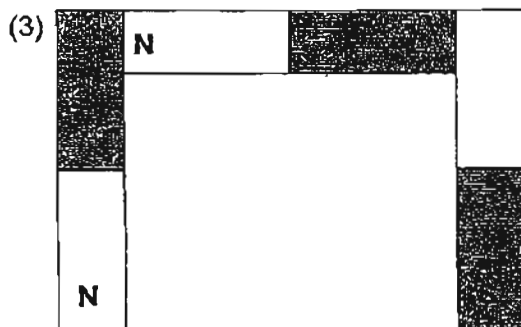
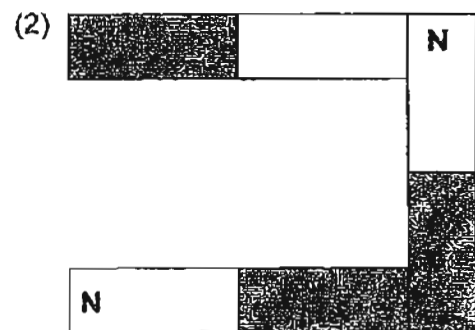
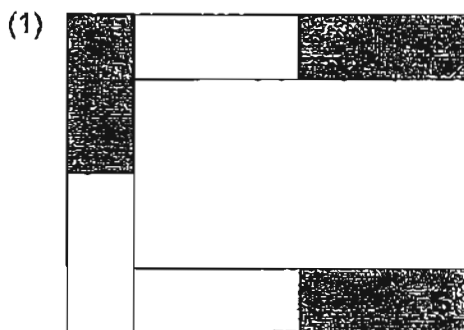


27. Gina's grandmother has lost most of her teeth. What will happen to the food that she has taken in through her mouth?

- A The food will be hard to digest.
- B The food will not be swallowed easily.
- C The food will be passed out of the body.
- D The stomach has to work harder to digest the food.

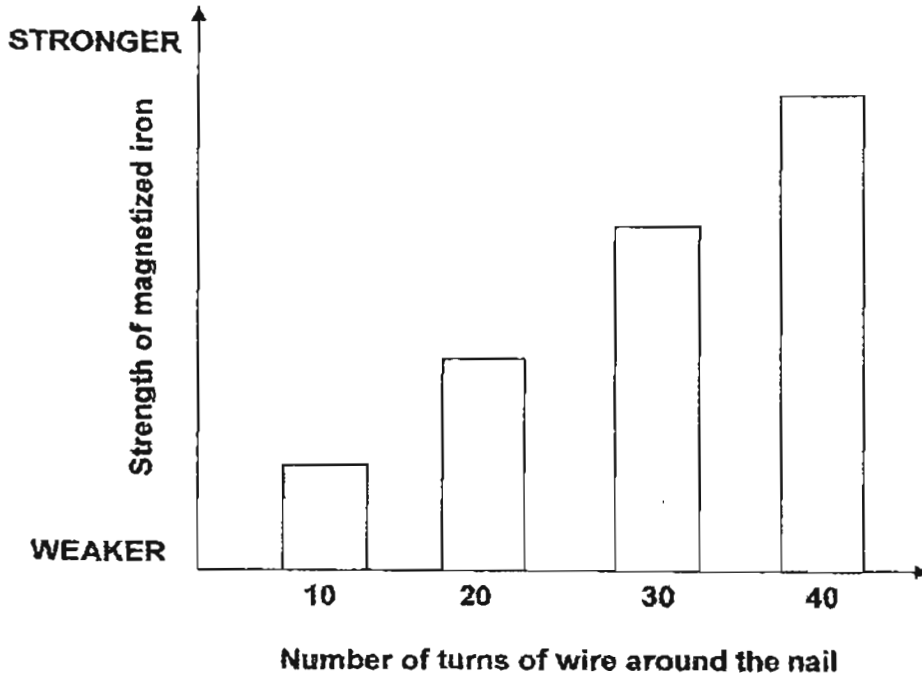
- (1) A only
- (2) C only
- (3) A and B only
- (4) A, B and D only

28. Study the arrangement of 3 bar magnets as shown below. Which of the following arrangements is most likely to be correct?



29. Colin conducted an experiment to find out if he could increase the strength of a magnetized iron nail by increasing the number of turn of wire around the iron nail in a circuit.

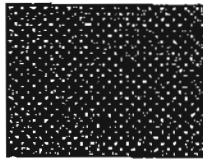
He recorded the results in the bar graph below.



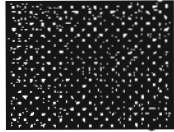
Based on the result shown in the bar graph above, which of the following states the correct relationship between the number of turns of wire around the nail and its magnetic strength?

- (1) The strength of the magnetized iron nail remains the same as the number of turns of the wire around the iron nail decreases.
- (2) The strength of the magnetized iron nail decreases as the number of turn of the wire around the iron nail increases.
- (3) The strength of the magnetized iron nail increases as the number of turn of the wire around the iron nail increases.
- (4) The strength of the magnetized iron nail increases as the number of turn of the wire around the iron nail decreases.

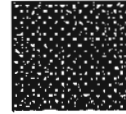
30. Hannah has 4 magnets, A, B, C and D. She placed them, one by one, 3 cm above a box of pins.



**Magnet A**



**Magnet B**



**Magnet C**



**Magnet D**

She recorded the number of pins each magnet had attracted in the table below.

	<b>Magnet A</b>	<b>Magnet B</b>	<b>Magnet C</b>	<b>Magnet D</b>
<b>Number of pins attracted</b>	21	27	16	34

Based on the result table above, which of the following statements conclude Hannah's experiment?

- (1) Bigger magnets are stronger than smaller magnets.
- (2) Smaller magnets are stronger than bigger magnets.
- (3) The strength of the magnet depends on its size.
- (4) The strength of the magnet does not depend on its size.



NAN HUA PRIMARY SCHOOL  
SEMESTRAL ASSESSMENT 2 – 2011  
PRIMARY 3

SCIENCE

BOOKLET B

14 Open-ended questions (40 marks)

Total Time for Booklets A and B: 1 hour 45 minutes

INSTRUCTIONS TO CANDIDATES

1. Write your name and index number in the space provided.
2. Do not turn over the page until you are told to do so.
3. Follow all instructions carefully.
4. Answer all questions.
5. Write your answers in this booklet.

Marks Obtained

Section B

	/40
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Name: \_\_\_\_\_ ( ) Class: P 3 \_\_\_\_\_

Date : 24 October 2011

Parent's Signature: \_\_\_\_\_

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**Section B (40 marks)**

Write your answers to questions 31 to 44 in the spaces provided. The marks available is shown in brackets [ ] at the end of each question or part question.

31. Study the diagram below carefully.



(a) Name the animal in the picture above. [1]

.....

(b) Which group of animals does it belong to? [1]

.....

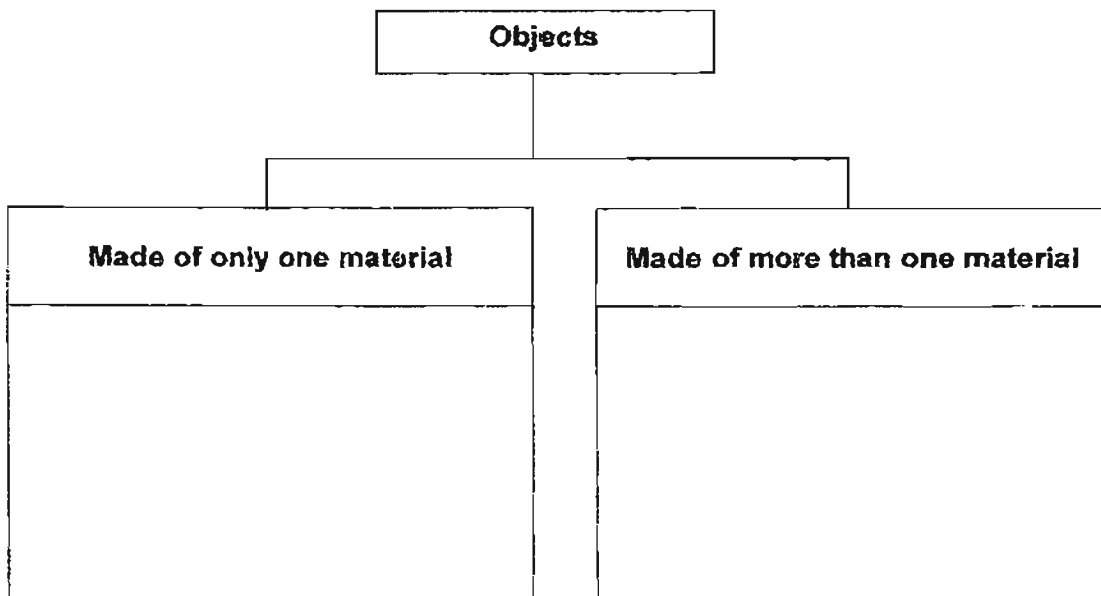
(c) State one observable characteristic of the group of animal stated in your answer in part (b). [1]

.....  
.....

Score	3
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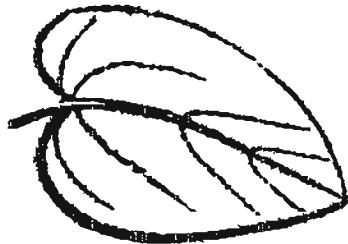
32. Look at the objects in the box below and classify them in the correct group.  
Write each word ONCE only. [3]

pencil	straw	bicycle
sunglasses	needle	clock

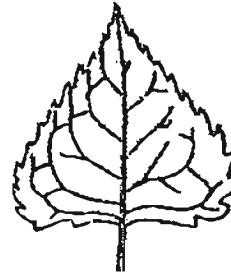


Score	3
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33. Study the diagram below carefully.



Leaf A



Leaf B

(a) State one **observable similarity** between Leaf A and Leaf B. [1]  
(Do not mention the size)

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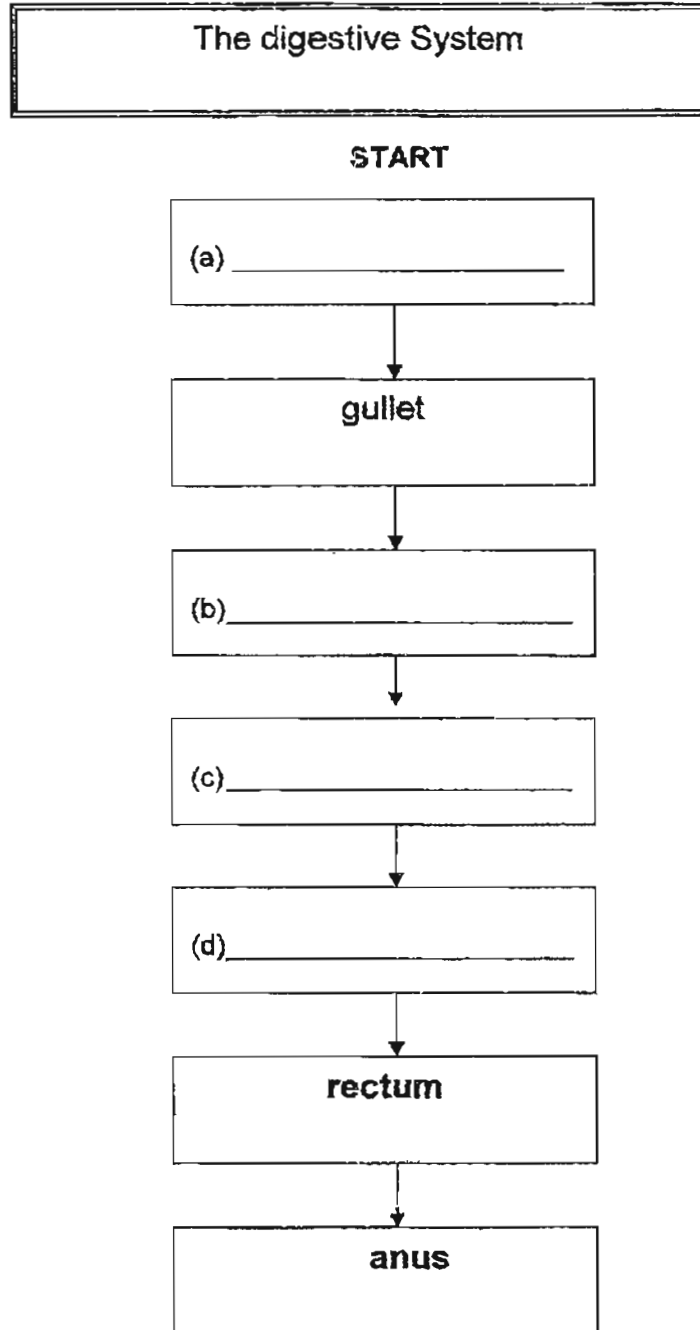
(b) State one **observable difference** between Leaf A and Leaf B [2]  
(Do not mention the size)

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Score	3
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34. The flow chart below shows how food travels through the different organs during digestion. Fill in the empty boxes provided with the correct organ. [2]




Score	2
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35. Look at the three statements given below, put a 'tick' (✓) in the boxes provided. [3]

		True	False
(a)	If you touch a nail with a magnet for a long time, it will become a permanent magnet.		
(b)	A bar magnet made by the electrical method is a temporary magnet.		
(c)	A plastic spoon can be made into a magnet by the 'Stroke' method.		

36. Read the short note Adam had written in his diary based on his observations during his visit to a chicken farm.

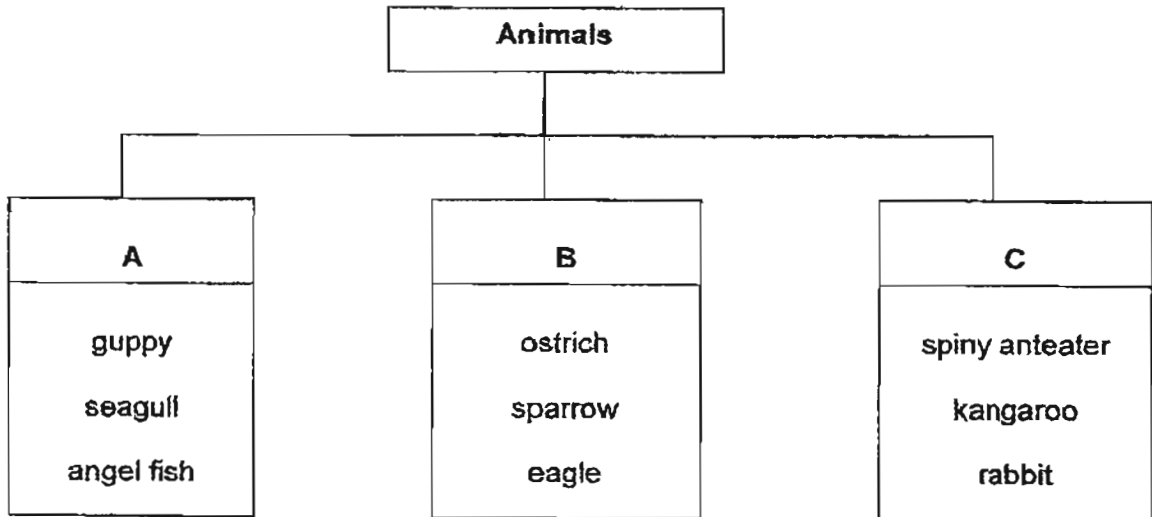


I visited a chicken farm. I saw a hen sitting on some eggs. A few weeks later, when I visited the farm again, I saw that the eggs had hatched into chicks. When I tried to pick up one of the chicks, it ran away from me. A few months later, I observed that the chicks were much bigger.

- (a) Fill in the correct word in the box in (ii). [1]
- (b) Match the characteristics of living things to its corresponding description using a ruler. [2]

(i) Living things can grow	•	• The hen laid eggs and the eggs hatched into chicks a few weeks later.
(ii) Living things can <div style="border: 1px solid black; width: 150px; height: 25px; margin: 5px 0;"></div>	•	• The chicks ran away when Adam tried to pick it up.
(iii) Living things can respond.	•	• The chicks were bigger a few months later.

37. Study the classification diagram given below.



(a) Which animal in the classification table above has been grouped wrongly? Give a reason for your answer. [2]

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(b) State one observable difference between the animals in Group B and Group C [2]

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Score	4
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38. Mrs Tang carried out an experiment to test the strength of three bags which were of the same size. She filled up the bag with different quantities of flour and recorded her observations in the table below.

Bag	Mass of flour the bag can hold before it breaks
X	510 g
Y	650 g
Z	820 g

- (a) Based on the results above, what conclusion can you draw on the property of bag Z? [1]

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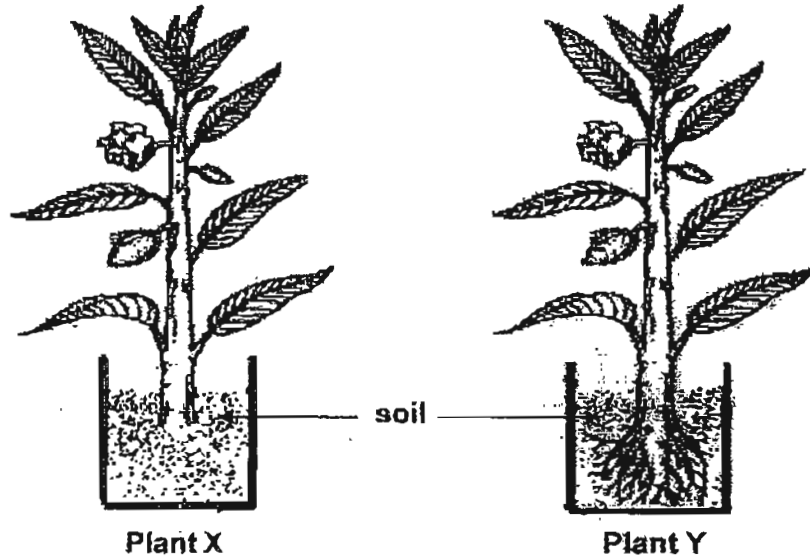
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- (b) Mrs Tang has a book which weighs 580g. Based on the table above, which bag(s) is/are able to withstand the weight of the book? [1]

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Score	2
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39. Mrs Lee puts two pots of plants, plant X and plant Y, in her garden and waters them daily.



- (a) Which plant, X or Y, will not be able to survive after a week? [1]

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

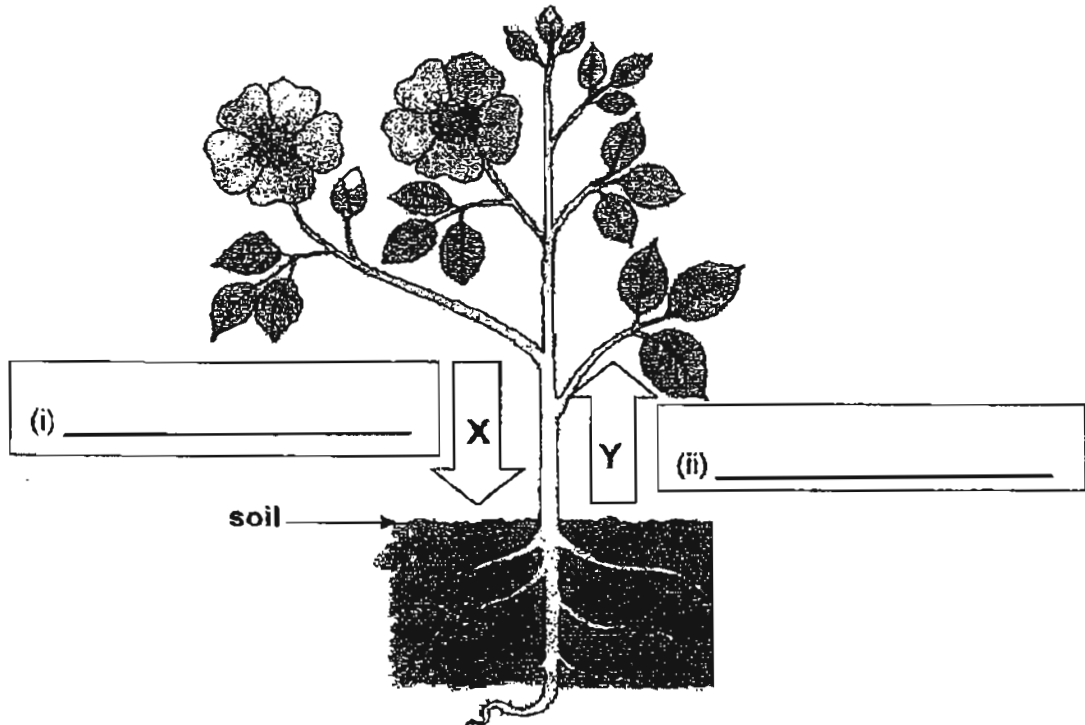
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Score	3
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40. Mr Tan is explaining to the class about the function of a stem of the plant shown below. He draws two arrows X and Y to represent the movement of materials carried in the tubes found in the stem.

(a) Fill in the words "food-carrying tube" and "water-carrying tube" in the two empty boxes provided beside the arrows. [2]



(b) Besides water and food, what else does the stem of the plant carries to all parts of the plant? [1]

Score	3
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41. The diagram below shows Tom eating a plate of noodles. He uses a pair of chopsticks to pick up the noodles.



- (a) Name the body system that works together with the muscular system to enable Tom to pick up the noodles from the plate with a pair of chopsticks. [1]

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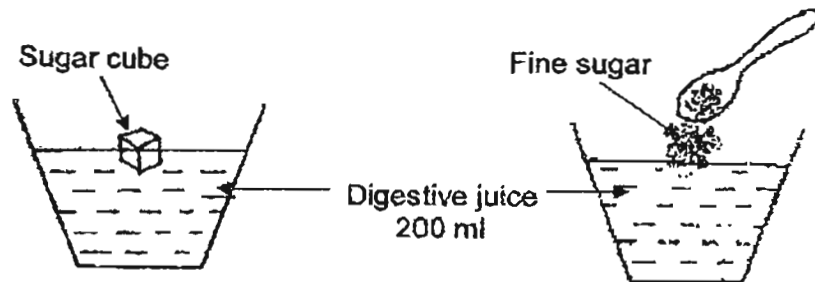
- (b) Tom talked to his friend while he was eating. Suddenly, he choked and coughed continuously.

Which organ in the body did the noodles most likely had travel to that caused Tom to choke? [1]

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Score	2
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42. Charles puts two types of sugar (sugar cube and fine sugar) of identical amount into two containers of similar digestive juice. The table below shows the amount of time needed to digest the two types of sugar respectively.



Types of sugar	Time taken to digest the sugar
Sugar cube	20 minutes
Fine sugar	8 minutes

- (a) Which type of sugar is digested by the digestive juice faster? [1]

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- (b) What can Charles conclude about the size of the food and how fast it is being digested from his experiment? [2]

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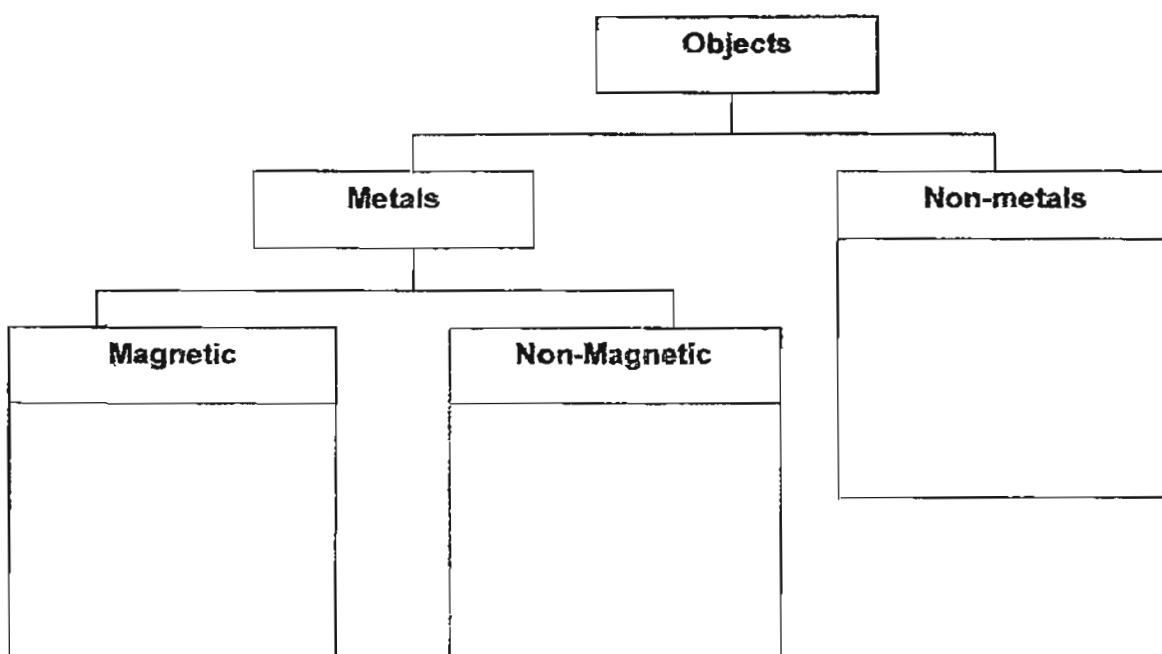


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Score	3
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43. Classify the objects in the box correctly into the classification table below. [3]

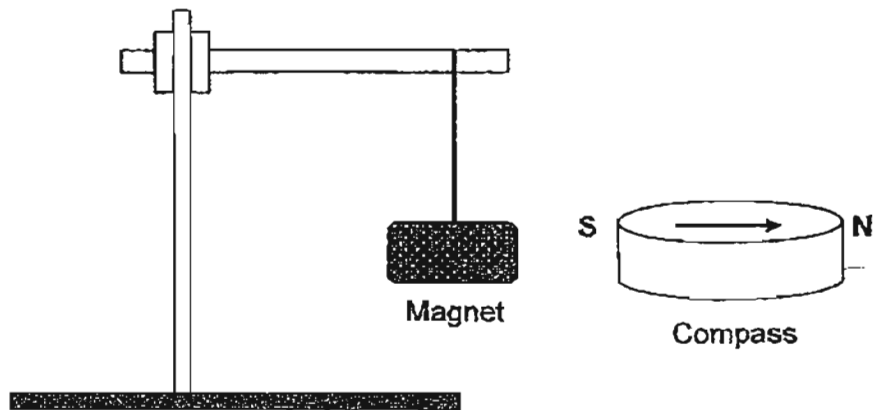
Eraser	Ceramic plate	Gold coin
Copper wire	Iron nail	Steel ruler



Score	3
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44. Peter attached a magnet and metal rod on the retort stand with a string respectively. He recorded his observation as shown in the diagram below.



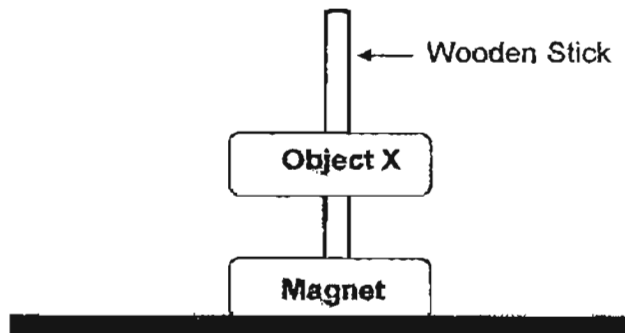
- (a) What property of magnet is shown in the experiment above? [1]

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Peter puts a magnet and an object X through a wooden stick as shown below. He noticed that object X floated above the magnet.



- (b) What is most likely to be object X? Give a reason for your answer. [2]

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THE END

Score	3
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# Answer Ke

## EXAM PAPER 2011

SCHOOL : NAN HUA  
SUBJECT : PRIMARY 3 SCIENCE

TERM : SA 2

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Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	Q17
2	4	3	3	4	3	1	3	3	1	2	3	1	3	2	2	3

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25	Q26	Q27	Q28	Q29	Q30
1	4	2	2	4	3	4	1	3	4	3	3	4

- 31 a) It is a butterfly.  
b) It belongs to a group called insects.  
c) It has six legs.

32)

Made of only material	Made of more than one material
needle	clock
straw	bicycle
pencil	sun glasses
	pencil

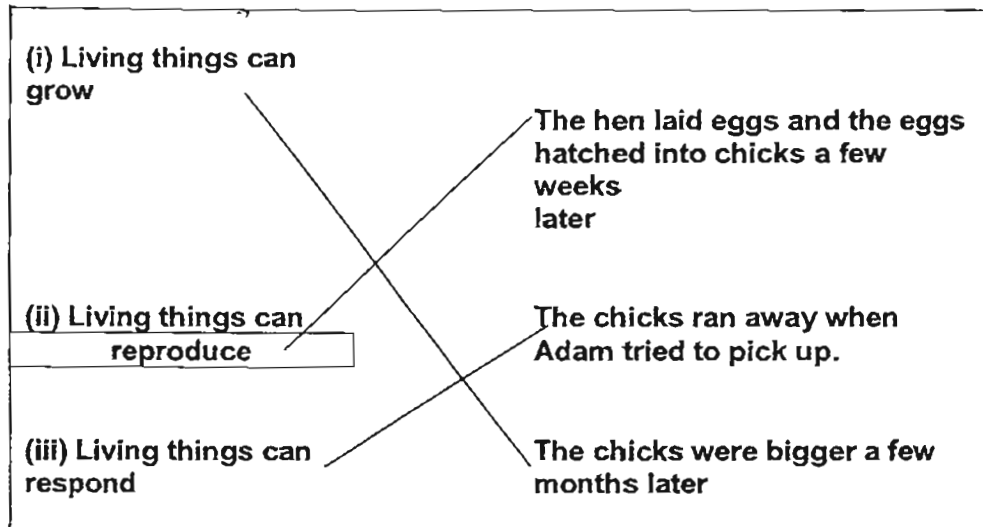
- 33 a) Both have leaf stalks.  
b) Leaf A has a smooth edge while leaf B has a jagged edge.

34 a) mouth (b) stomach (c) small intestine (d) large intestine

35 a) False (b) True (c) True

36 a) reproduce

36 b)



37 a) Seagull. The seagull is a bird while guppy and angel fish are fish.

b) The animal in group B have feathers on their bodies while the animals in group C have hair.

38 a) bag Z is the strongest .

b) Bag Y and Z can withstand the weight of the book.

39 a) plant X will not be able to survive.

b) Plant X cannot absorb water from the soil because it has no roots so the plant will not be able to make food and die.

40 a) i) food-carrying tube

ii) water- carrying tube

b) It also carries mineral salts.

41 a) Skeletal system

b) The wind pipe

42 a) The fins sugar

b) The smaller the food is the less time taken for digestion.

43) Magnetic – steel ruler , Iron nail

Non-Magnetic – Gold coin , Copper wire

Non-metals -- Eraser , Ceramic plate

44 a) The magnet always comes to a rest at the north-south direction.

b) Another magnet . Like poles repel, the like poles of object and the magnet are facing each other so they repel.

-- end paper ---