



RED SWASTIKA SCHOOL

RED SWASTIKA SCHOOL

2011 SEMESTRAL ASSESSMENT 2

SCIENCE PRIMARY 3

Name : _____ ()

Class : Primary 3/ _____

Date : 2 Nov 2011

BOOKLET A

Total time for Booklets A & B: 1h 30 min

Booklet A: 30 questions (60 marks)

Note:

1. Do not open the booklet until you are told to do so.
2. Read carefully the instructions given at the beginning of each part of the booklet.
3. Do not waste time. If the question is too difficult for you, go on to the next question.
4. Check your answers thoroughly and make sure you attempt every question.
5. In this booklet, you should have the following:
 - a. Page 1 to Page 13
 - b. Questions 1 to 30

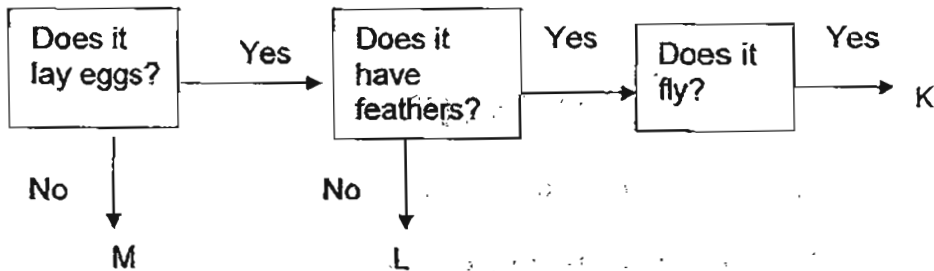
Section A

For Questions 1 to 30, choose the most suitable answer and shade its number in the OAS provided.

- 1 Which example **incorrectly** demonstrates the specified characteristic of a living thing?

	Characteristics	Examples
(1)	Ability to grow	A boy is now 5cm taller than he was last year.
(2)	Ability to move	A potted plant was pushed from point A to B.
(3)	Ability to reproduce	A hen lays 5 eggs.
(4)	Ability to respond to changes	A leaf of a mimosa plant closes when touched.

- 2 Study the flow chart below.



What animals do K, L and M represent?

	K	L	M
(1)	bat	guppy	lion
(2)	sparrow	grasshopper	cow
(3)	penguin	shark	tiger
(4)	ostrich	cockroach	pig

3 Four students made the following statements about ferns.

- Joe : Ferns reproduce from spores.
- Bala : Ferns can make their own food.
- Shrek : Ferns can cause food to turn bad.
- Wei qi : Ferns are of different shapes and sizes.

Who made a wrong statement?

- (1) Joe
- (2) Bala
- (3) Shrek
- (4) Wei qi

4 The table below provides some information about a group of living things A, B, C and D.

Living Thing	Reproduce from spores?	Need light to grow?	Produce flowers?
A	Yes	Yes	No
B	No	No	No
C	Yes	No	No
D	No	Yes	Yes

Which letter should 'mushroom' be classified under?

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

5 The table below shows the characteristics of 4 animals, P, Q, R and S. Which one of these animals is most likely a butterfly?

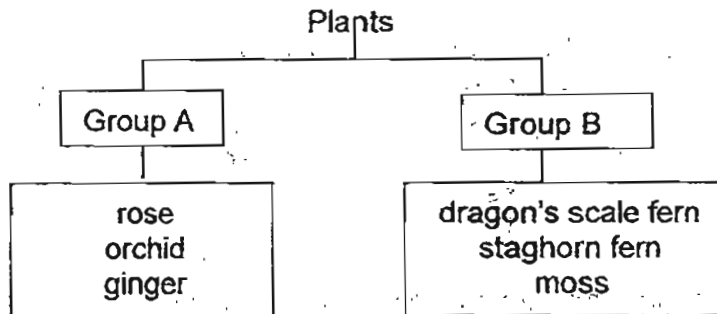
	Animal	Number of feelers	Number of wings	Number of legs
(1)	P	0	2	2
(2)	Q	2	0	6
(3)	R	0	2	6
(4)	S	2	4	6

6 Han Na wants to carry out an experiment to find out if bread mould grows faster in a dark box or in a refrigerator. Which of the following variables must he keep the same to ensure a fair test?

- A: Size of bread
- B: Type of bread
- C: Length of time of the experiment
- D: Place where the experiment was conducted

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

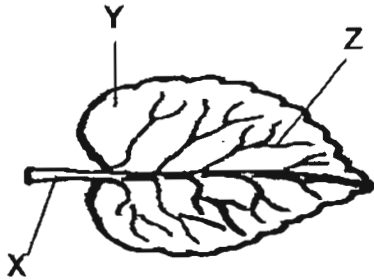
7 Study the chart below.



Which one of the following pairs makes a suitable heading for each group?

	Group A	Group B
(1)	land plants	water plants
(2)	poisonous plants	non-poisonous plants
(3)	flowering plants	non-flowering plants
(4)	non-flowering plants	flowering plants

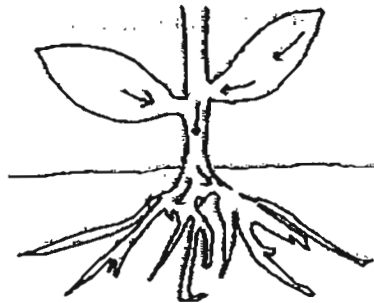
8 Study the leaf below carefully.



Which one of the following shows the correct parts of the leaf?

	X	Y	Z
(1)	stalk	blade	vein
(2)	stalk	vein	blade
(3)	stem	blade	vein
(4)	stem	vein	blade

9 The diagram below shows some parts of a plant.



The arrows in the diagram show the path taken by _____ in the plant.

- (1) food
- (2) water
- (3) sunlight
- (4) mineral salts

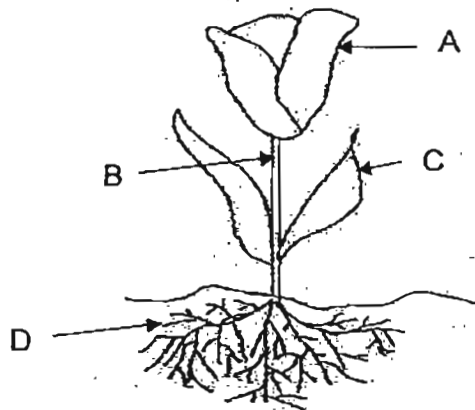
10 Which of the following is not part of the respiratory system?

- (1) nose
- (2) lungs
- (3) tongue
- (4) windpipe

11 Which of the following activities does not involve the muscular system directly?

- (1) smiling
- (2) blinking
- (3) thinking
- (4) swimming

12 The picture below shows a plant.



Which of the following parts is responsible for making food?

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

13 After a 1.6km run, Jia Le had difficulty breathing and felt faint. Which of his systems were affected?

- A: skeletal
- B: circulatory
- C: respiratory

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

- 14 The stem of a plant snapped as shown below. Three days later, the plant died because _____.



- (1) the leaves could not get enough water
(2) the leaves could not get enough sunlight
(3) the root could not store food for the plant
(4) the root could not hold the plant firmly to the ground
- 15 Yilin ate some grapes and swallowed the seeds. Digestive juices in the body cannot digest the seeds. What would happen to the seeds?

- (1) They will be passed out of the body.
(2) They will be crushed in the stomach.
(3) They will remain in the small intestine.
(4) They will pass through the walls of the large intestine.

- 16 Below is a picture of a floating aquatic plant.



Which of the following statements correctly describes the function of X?

- (1) It makes food for the plant.
(2) It helps the plant take in air.
(3) It takes in water and mineral salts.
(4) It helps to hold the plant firmly to the ground.

17 The picture below shows a plant.



Part H is found underground.

Which of the following describes how H is formed?

- (1) H is formed by a flower.
- (2) Too much water is contained in H.
- (3) Water is transported from leaves to H for storage.
- (4) Food is transported from the leaves to H for storage.

18 Study the table below.

Group A	Group B
gold	plastic
silk	nylon
cotton	glass

Which of the following are suitable headings for Group A and Group B?

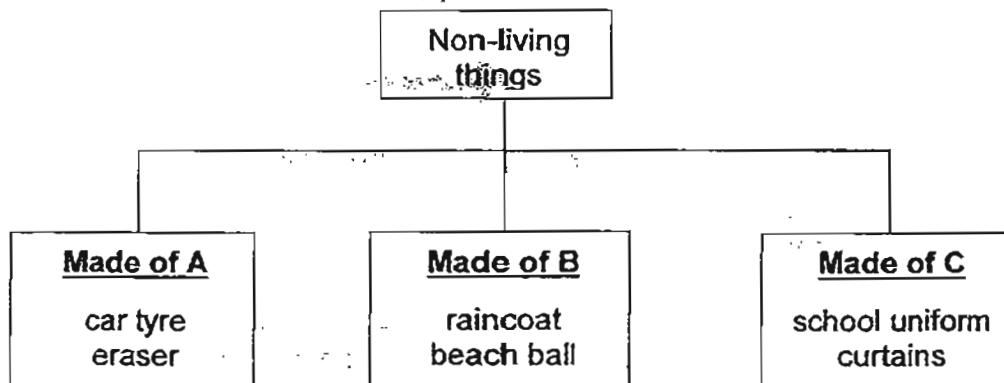
	Group A	Group B
(1)	light materials	heavy materials
(2)	hard materials	soft materials
(3)	natural materials	man-made materials
(4)	strong materials	weak materials

- 19 Kim took four materials, P, Q, R, S and performed scratch tests on each of them. The results of her investigation are shown in the table below. A tick (✓) indicates that the material can be scratched.

Material	Can be scratched by a finger nail	Can be scratched by a steel nail	Can be scratched by a copper nail
P	X	✓	X
Q	X	✓	✓
R	X	X	X
S	✓	✓	✓

Arrange the materials from the softest to the hardest.

- (1) R, S, P, Q
 - (2) R, P, Q, S
 - (3) P, Q, S, R
 - (4) S, Q, P, R
- 20 The following non-living things are classified as shown below.



Which of the following do A, B and C represent?

	A	B	C
(1)	rubber	plastic	metal
(2)	metal	rubber	plastic
(3)	plastic	fabric	rubber
(4)	rubber	plastic	fabric

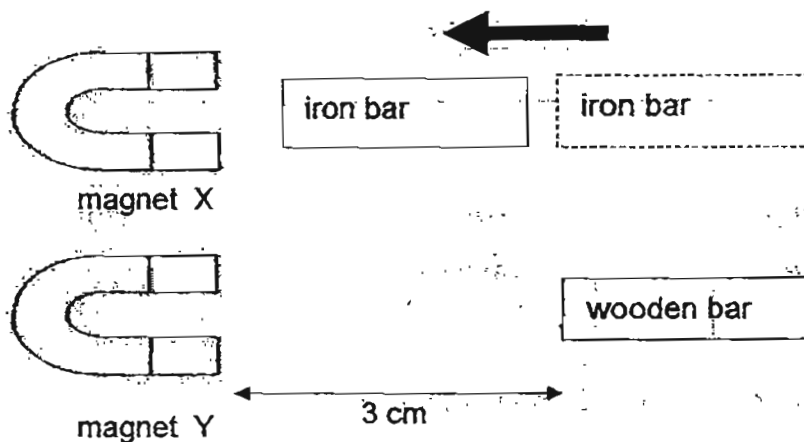
21 A freely suspended magnet will rest in a _____ direction.

- (1) east-west
- (2) south-east
- (3) north-north
- (4) north-south

22 Suresh held a magnet near a coin and a nail. Why did the magnet attract the nail but not the coin?

- (1) The nail was lighter than the coin
- (2) The nail contains steel but not the coin.
- (3) The nail had rust on it but not the coin.
- (4) The nail was sharp but the coin was not.

23 Ahmad placed two identical magnets, X and Y, near an iron bar and a wooden bar each 3cm away. He observed that the iron bar moved towards the magnet while the wooden bar remained where it was.

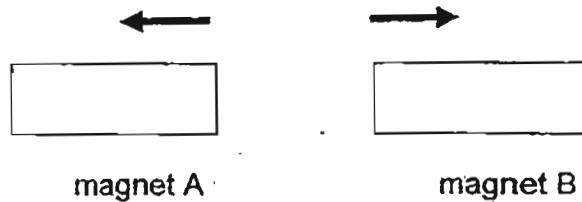


What can Ahmad conclude from the experiment above?

- A: Magnet X is stronger than Magnet Y.
- B: Magnetic force can act from a distance.
- C: Magnetic force can only attract magnetic materials.
- D: Magnetic force can pass through non-magnetic materials.

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

- 24 When Syria placed two magnets near each other, the magnets moved in the direction as shown by the arrows in the diagram below.

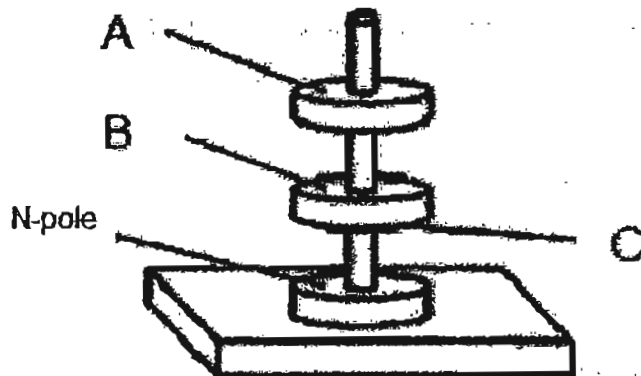


Syria listed some possible arrangements of the poles of the two magnets that are facing each other.

- A: N-pole of A and S-pole of B
- B: N-pole of A and N-pole of B
- C: S-pole of A and S-pole of B
- D: S-pole of A and N-pole of B

Which of the above arrangements are correct?

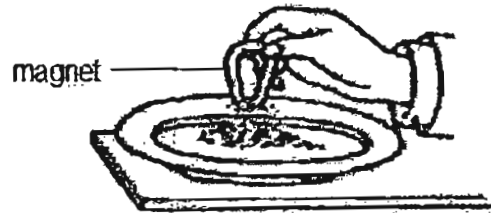
- 25 Study the set-up below.



Which of the following correctly identifies the poles of the magnets at A, B and C?

	A	B	C
(1)	North	South	North
(2)	South	South	South
(3)	North	North	North
(4)	North	North	South

- 26 A plate contained clay, sand, iron filings and copper wires. A magnet was brought close to the plate as shown below.

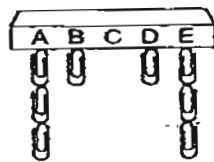


Which of the following will be attracted by the magnet?

- A: clay
- B: sand
- C: iron filings
- D: copper wires

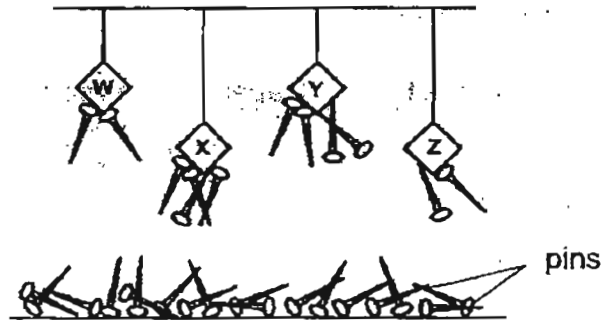
- (1) A only
- (2) C only
- (3) A and B only
- (4) C and D only

- 27 Look at the picture of the magnet and some paper clips below. Which statement below is true?



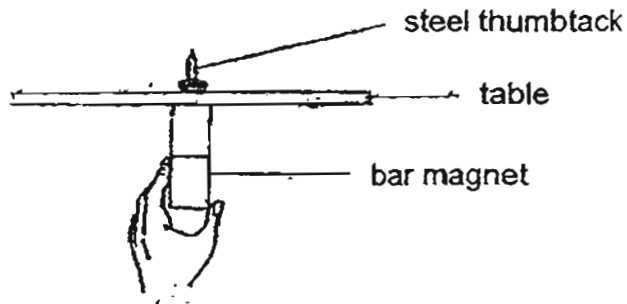
- (1) C is non-magnetic.
- (2) A and E are like poles.
- (3) B and D have more magnetic strength than A and E.
- (4) A and E have the greatest magnetic strength.

- 28 Four magnets, W, X, Y and Z are hanging from strings of two different lengths as shown in the diagram below:



Pins are placed below the magnets and different numbers of pins are attracted to the magnets. Which is the weakest magnet?

- (1) W
 - (2) X
 - (3) Y
 - (4) Z
- 29 Fizal placed a steel thumbtack on the table. When he moved the magnet under the table, the thumbtack moved along with it.



What is the table likely to be made of ?

- (1) iron
- (2) steel
- (3) nickel
- (4) aluminium

- 30 James placed a magnet near three objects J, K and L, and observed the reaction that took place between the magnet and the objects. He recorded his observation in a table below.

Object	Attract	Repel	No reaction
J	✓	X	X
K	X	X	✓
L	X	✓	X

What could J, K and L be?

	J	K	L
(1)	iron bar	silver bar	bar magnet
(2)	silver bar	iron bar	copper bar
(3)	iron bar	bar magnet	aluminium bar
(4)	bar magnet	copper bar	silver bar

End of Booklet A
Please check your answers.



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2011 SEMESTRAL ASSESSMENT 2 SCIENCE PRIMARY 3

Name : _____ ()

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BOOKLET B

14 Questions
40 Marks

In this booklet, you should have the following:

- a. Page 14 to Page 27
- b. Questions 31 to 44

MARKS

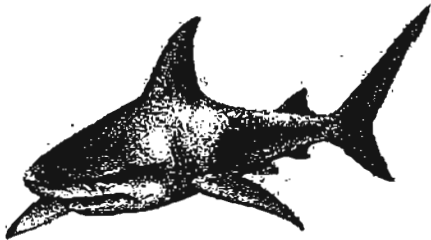
	OBTAINED	POSSIBLE
BOOKLET A		60
BOOKLET B		40
TOTAL		100

Parent's Signature : _____

Section B

Answer all the questions in the space provided.

31 Look at the pictures below.



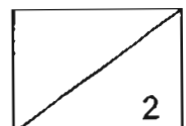
Shark



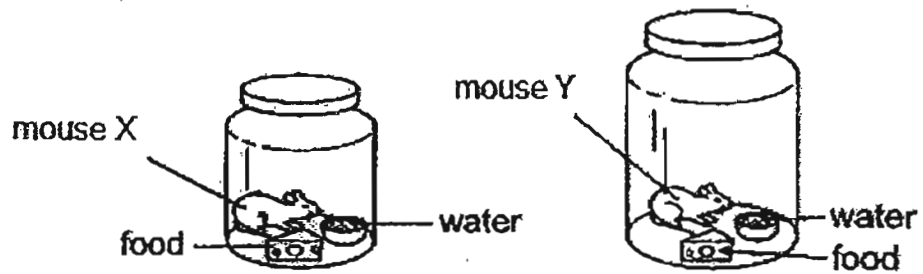
Whale

a) State one difference in the way the animals breathe. (1m)

b) Explain what will happen if all the fins of the shark are removed. (1m)



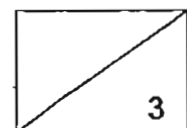
32 Two mice of the same size are kept in each of the airtight jars shown below.



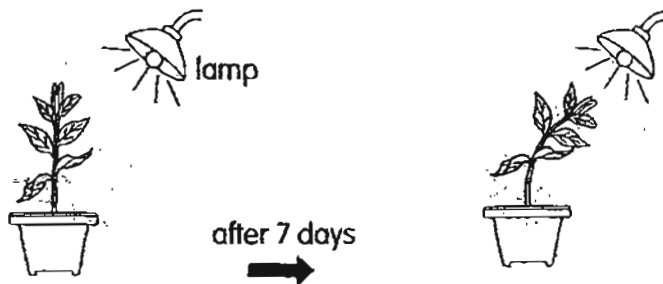
a) What will happen to the mice after two weeks? Why? (1m)

b) Which mouse will survive longer? Why is this so? (1m)

c) Without removing the cover of the jars, suggest what can be done to help the mice to survive longer. (1m)



- 33 Kai conducted an indoor experiment on a plant. He watered the plant daily. After one week, he observed the change in the plant as shown below.

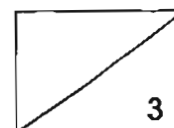


- a) What characteristic of a living thing does the experiment show? (1m)

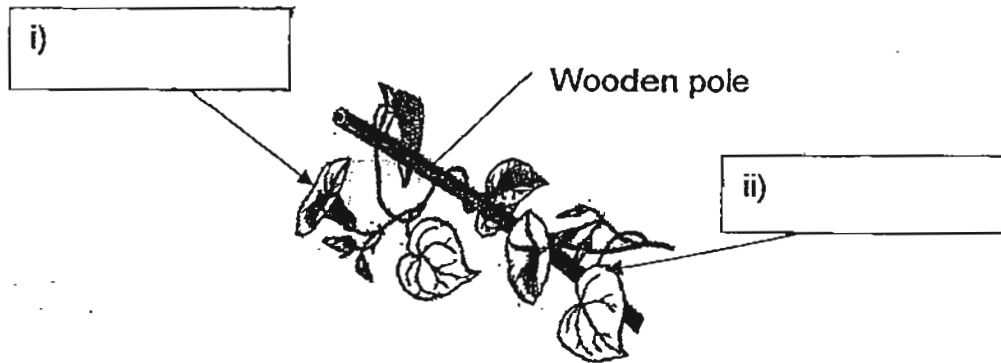
Kai decided to put the plant in his garden. Another week later, he noticed an organism had eaten up some of the leaves.

- b) i) What could the organism be? (1m)

- ii) What could be done to the plant to prevent such organisms from eating the leaves? (1m)



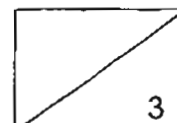
34 The diagram below shows a plant.



a) Label the plant parts by filling in the boxes above. (1m)

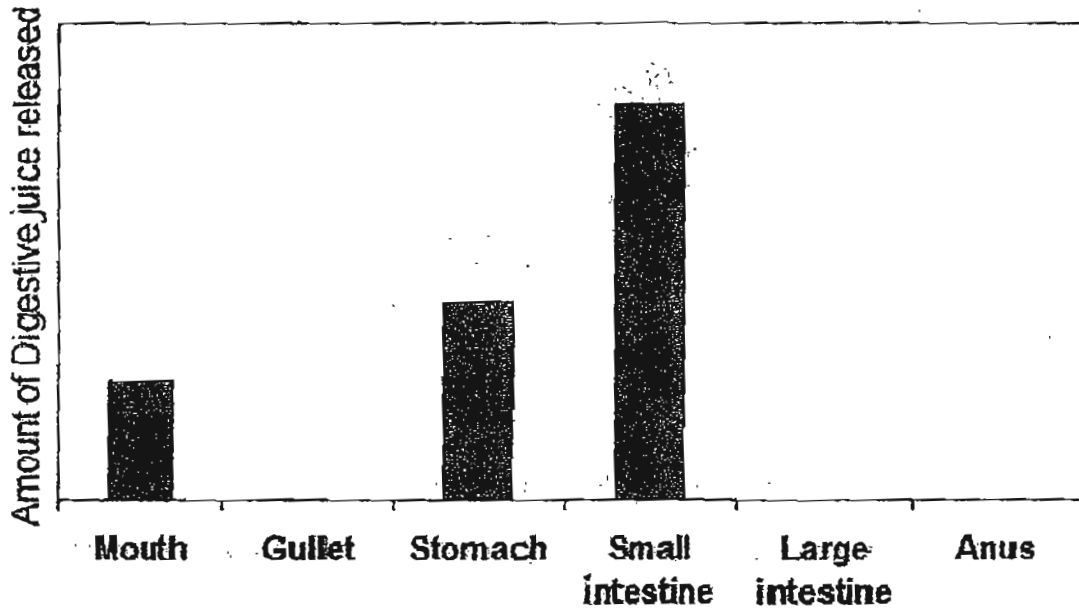
b) Why does the stem of this plant twirl round the wooden pole? (1m)

c) Explain how part (b) is helpful for the plant to be able to make food. (1m)



35 Study the graph below and answer the questions that follow.

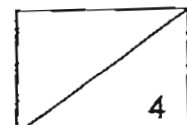
The Human Digestive System



a) In which part of the digestive system is most of the food digested?(1m)

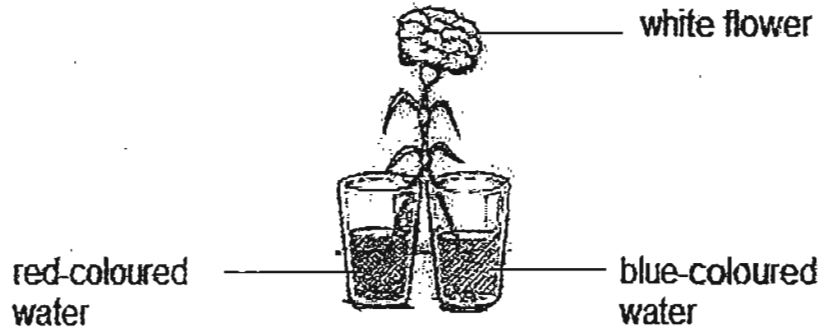
b) In which part is the undigested food stored? (1m)

c) Compare the amount of digestive juices in the mouth and stomach. What does the amount of digestive juice tell you about the amount of digestion that takes place in these two parts? (2m)



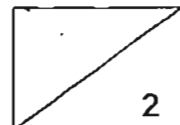
36

The stem of a white flower was cut and put into two beakers of coloured water as shown below.

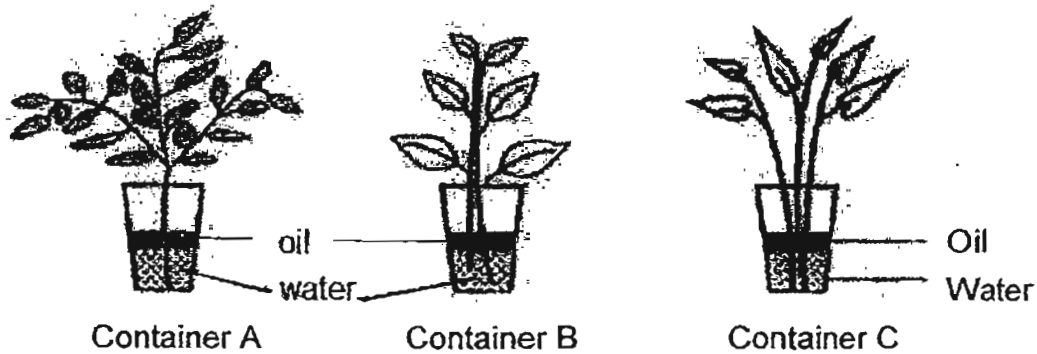


a) What will happen to the white flower after some time?(1m)

b) Explain your answer in part (a). (1m)



- 37 Three different types of plants were placed in identical containers with the same amount of water and a layer of oil. The volume of water was recorded on the 1st day and the 7th day in the table below.

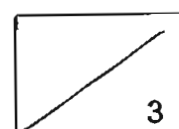


Container	Volume of Water (ml)	
	Day 1	Day 7
A	200	180
B	200	200
C	200	160

- a) Based on the table, which container contained a plastic plant?
Explain your answer. (1m)

- b) Explain why there was less water in Containers A and C on Day 7.
(1m)

- c) What is the purpose of covering the water in each container with a layer of oil in this experiment? (1m)



38 Study the picture of the human heart below.



a) Which system does this organ belong to? (1m)

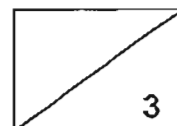
The table below shows the heart rate of Jose at different times of the day. The normal heart rate of a young, healthy person is about 72 beats per minute when he is not doing any vigorous activity.

Time	Beats per minute
6 am	60
10 am	88
4 pm	120
9 pm	70

Use the information in the table above to answer the following questions.

b) What could Jose be doing when his heart rate was the lowest? (1m)

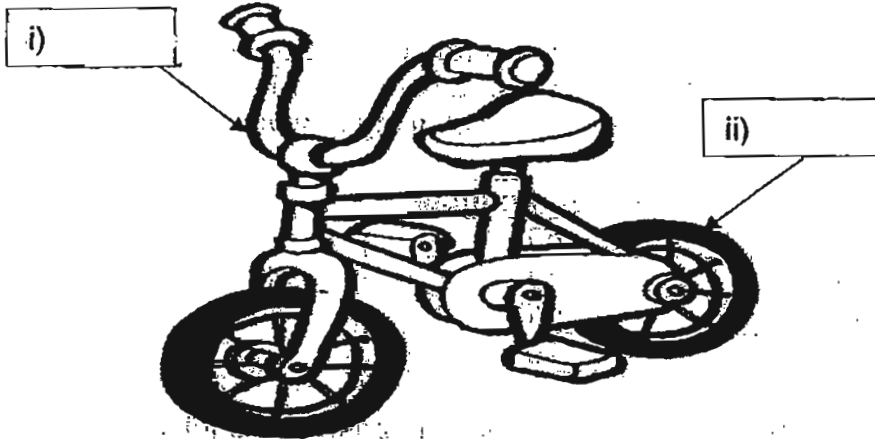
c) Jose went to play basketball. At what time was he playing basketball? (1m)



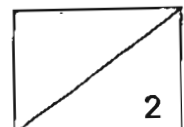
39 Study the table below.

Material	Strong	Flexible	Waterproof
A	Yes	Yes	Yes
B	Yes	No	Yes
C	Yes	Yes	No

a) Based on the properties of the materials in the table above, which is the most suitable material for the bicycle parts below? Fill in each box with either A, B or C. You can use each material only once. (1m)



b) Based on the table above, suggest a possible material for C and give a reason for your choice. (1m)



- 40 Yusof coiled an electrical wire around an iron nail to make an electromagnet. However, the iron nail was not able to attract any paper clips. His set-up is shown below.

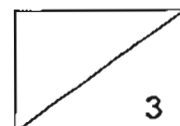


- a) From the picture above, what must be added in order for the electromagnet to work? (1m)
-

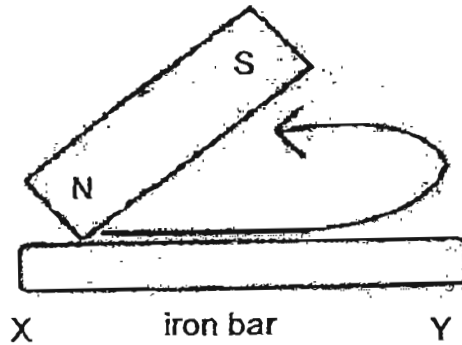
Yusof carried out the experiment again with different number of batteries and coils around an iron nail to see how many paper clips it could attract. The table below shows the results.

Number of batteries	Number of coils around the iron nail	Number of paper clips attracted
1	20	4
2	20	7
1	30	7
2	30	9

- b) What pattern can you observe about the number of batteries used, the number of coils around the iron nail, and the number of paper clips attracted? (2m)
-
-



41 Mr Tan used the 'stroke method' to magnetise a piece of iron bar as shown.



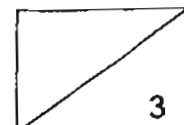
a) Identify the pole at X after he has magnetised the iron bar. (1m)

He continued to magnetise three other iron bars using the 'stroke method' but he used different number of strokes for each bar. He then placed each iron bar at the same distance from a plate of pins to test the strength of each iron bar. The table below shows the results of his experiment.

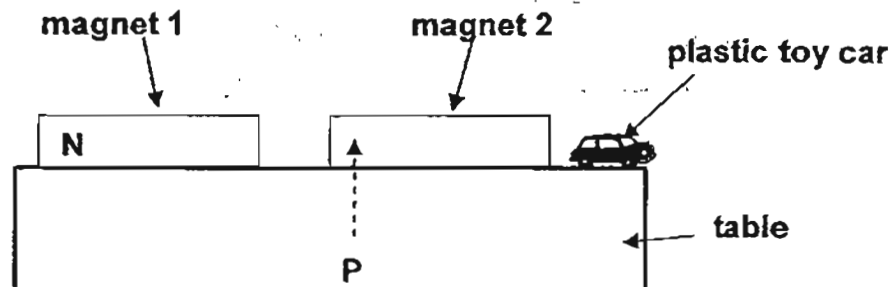
Number of strokes	Number of pins attracted
40	4
?	2
50	7

b) How many strokes did he use when 2 pins were attracted? (1m)

c) What does the result show about the effect of the number of strokes on the magnetic strength of the iron bar? (1m)



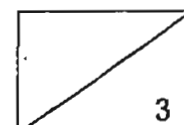
42 Two magnets are placed next to each other as shown.



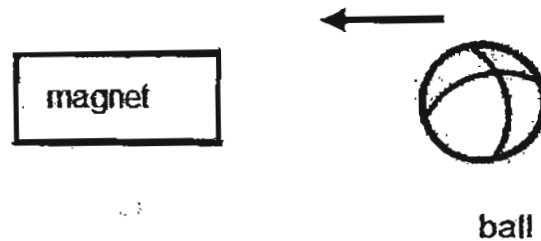
a) If P is the S-pole of magnet 2, what will happen to the plastic toy car if magnet 1 is moved closer to magnet 2? (1m)

b) Explain your answer in (a). (1m)

c) If P is the N-pole of magnet 2 and the position of magnet 1 remained unchanged, what will happen to the plastic toy car when magnet 1 is brought closer to magnet 2 ? (1m)



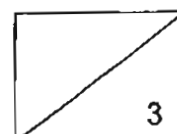
43 Mustafa placed a magnet near a ball as shown below.



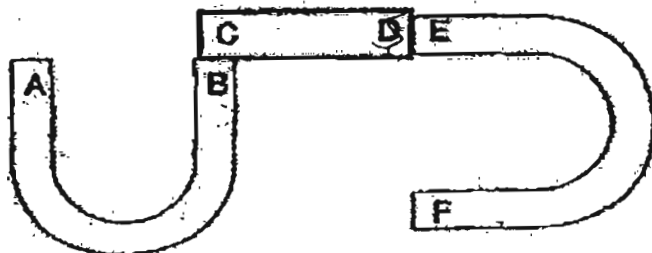
a) He observed that the ball moved towards the magnet in the direction indicated by the arrow. Name two magnetic materials that the ball can be made of. (1m)

b) When Mustafa placed a piece of paper between the magnet and the ball, he noticed that the ball could still be attracted to the magnet. Why? (1m)

c) Mustafa replaced the ball with a ping pong ball. What do you think he would observe? Why? (1m)

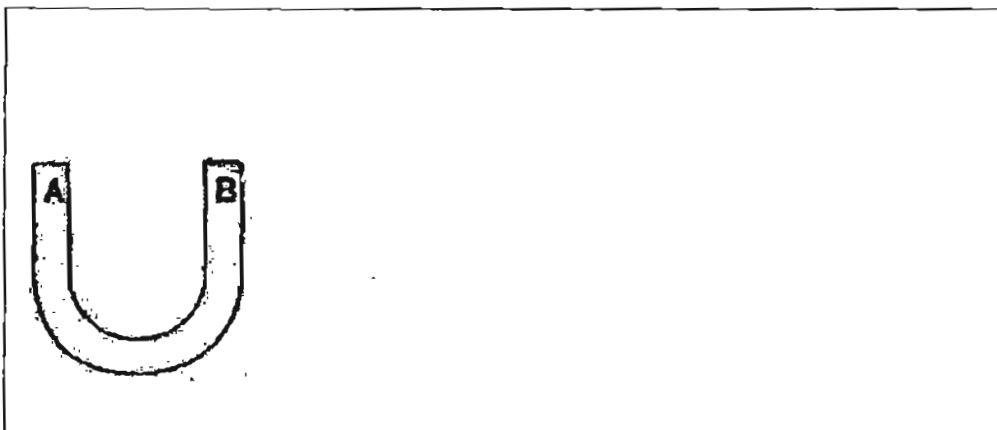


44 Study the diagram below.

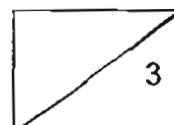


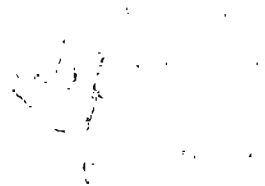
a) If A is the N-pole of the magnet, what pole will D be? (1m)

b) Based on your answer in (a), the diagram above is incorrect if E is actually the S-pole. Using the same number of magnets, draw the correct diagram in the box below and label parts C, D, E and F. One of the magnets has been drawn for you. (2m)



End of Booklet B
Please check your answers.





1914

Answer Ke

EXAM PAPER 2011

SCHOOL : RED SWASTIKA
SUBJECT : PRIMARY 3 SCIENCE

TERM : SA2

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

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

- 31)a)Shark breathe through gills while whale breathe through lungs.
b)The shark cannot swim and die.
- 32)a)The air in the jars would be used up and the mice have no more air to breathe.
b)Mouse Y will survive longer because the jar is bigger and has more air inside but Mouse X's jar is smaller and has less air inside.
c)Poke a hole on the cover.
- 33)a)Living things respond to changes/stimuli.
b)i)caterpillar
ii)Spray chemical on the plants to prevent the caterpillar to eat the leaves.
- 34)a)i)flower ii)leaf
b)The stem of that plant is weak so the stem twirl around the wooden pole for support.
c)The stem is supported by the pole and can hold the leaves upright to get more sunlight to make food.
- 35)a)The small intestine.
b)The large intestine.
c)More digestion takes place in the stomach than in the mouth.
- 36)a)It will turn purple flower.
b)Red-coloured water plus coloured equal to purple coloured water. The stem has tubes that transport the water to various part of the plants. That's how the white flower become purple flower.
- 37)a)Container B. Plastic plant does not take in water from the roots.
b)The roots of the plant take in the water and transport it to various parts of the plant.
c)To prevent the water from evaporating.

38)a)Circulatory System.

b)He was sleeping.

c)Jose went to play basketball at 4pm.

39)a)i)B ii)A

b)It is strong, flexible and not waterproof.

40)a)He must add some batteries in order for the electromagnet to work.

b)When there is an increase in the number of batteries and the coils around the nail, the electromagnet is able to attract more paperclips.

41)a)North seeking pole.

b)20.

c)The more no you stroke, the iron bar will have more magnetic force.

42)a)The car will drop down from the table.

b)The like poles of both magnets are facing each other so they repel. When magnet 2 moves backwards, it will push the toy car causing it to drop down from the table.

c)The car will remain in the same position.

43)a)Iron and Steel.

b)The magnet have a strong magnetic force to pass through the paper.

c)The ping Pong ball will not move. The ping pong ball is not a magnetic material so magnet did not attract it.

44)a)South pole.

b)

