

METHODIST GIRLS' SCHOOL

Founded in 1887



END OF YEAR EXAMINATION 2011 PRIMARY 3 SCIENCE

BOOKLET A

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

INSTRUCTIONS TO CANDIDATES

Do not turn over this page until you are told to do so.

Follow all instructions carefully.

Answer all questions.

Shade your answers in the Optical Answer Sheet (OAS) provided.

Name: _____ ()

Class: Primary 3. _____

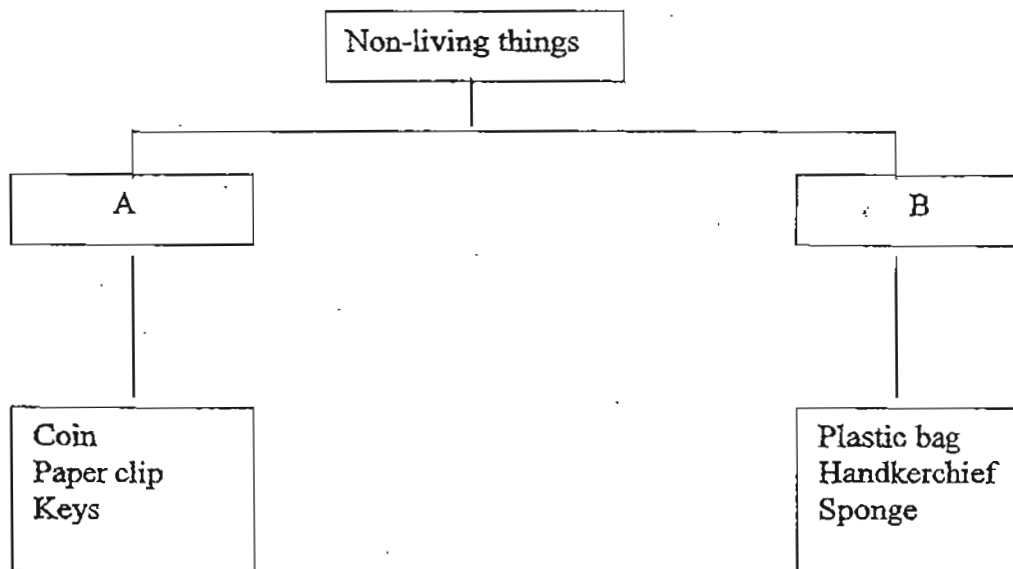
Date: 13 October 2011

This booklet consists of 14 printed pages including this page.

SECTION A: 50 marks

For each question from 1 to 25, 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 of the following sub-headings should A and B be?

	A	B
(1)	Flexible	Stiff
(2)	Light	Heavy
(3)	Big	Small
(4)	Hard	Soft

2

Which of the following is an example of a living thing that responds to changes?

- (1) A turtle lays eggs.
- (2) The leaves of a tree have holes in them.
- (3) The rain tree closes its leaves when night falls.
- (4) The pupil pours 30 ml of water into the measuring cylinder.

- 3 The items in the table are grouped into Group A and B. How are the items grouped?

Group A	Group B
Car tyre	Name card
Ping pong ball	Tissue paper
Shirt button	An envelope

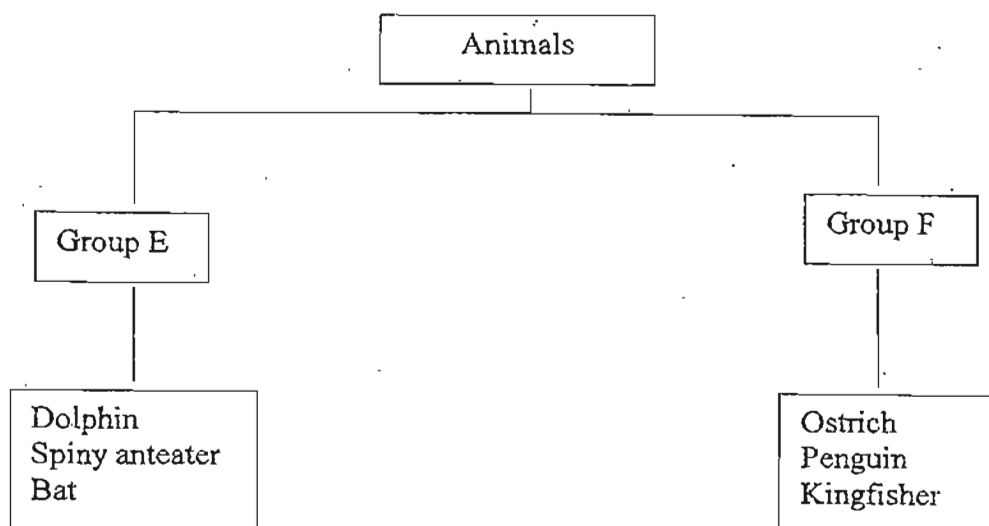
- (1) materials
- (2) size
- (3) weight
- (4) shape

- 4 Which of the following characteristics describe the spiny anteater as a mammal?

- A It has hairs.
- B It lays eggs.
- C It lives on land.
- D It feeds its young milk.

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

Study the classification diagram below and answer Questions 5 and 6.



5 How are the animals in Group E and F classified?

	Group E	Group F
(1)	Live on land	Live in water
(2)	Have four legs	Have 2 legs
(3)	Covered with hair	Covered with feathers
(4)	Not edible	Edible

6 Which of the following statements describes the difference between a bat and a kingfisher?

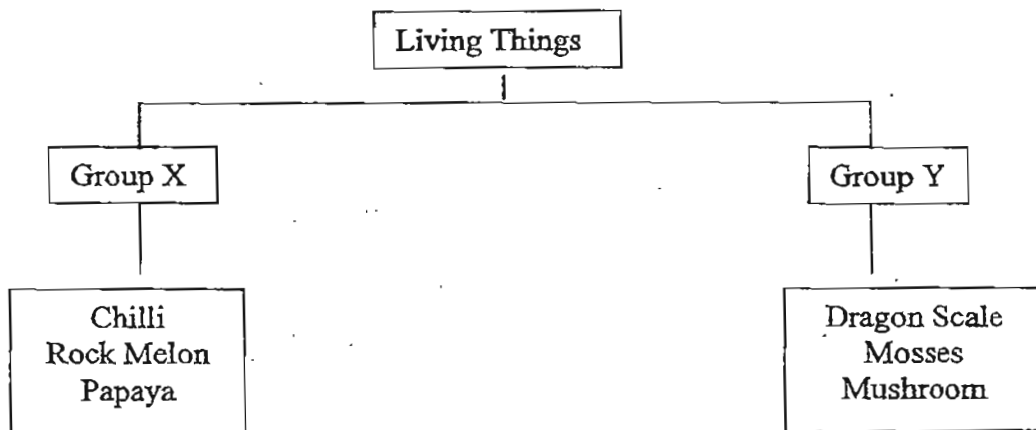
- (1) A bat can fly but a kingfisher swims.
- (2) A bat gives birth to live young but a kingfisher lays eggs.
- (3) A bat lives on land but a kingfisher lives in the water.
- (4) A bat is a meat eater but a kingfisher is a plant eater.

(Go on to the next page)

7 Which of the following statements is **true**?

- (1) Chlorophyll gives plants their green colour.
- (2) Plants depend on other living things for food.
- (3) The roots of all plants are found in the ground.
- (4) All plants have roots, stem, leaves, flowers and fruits.

8 The classification chart below shows how some living things can be grouped.



Which of the following represents X and Y?

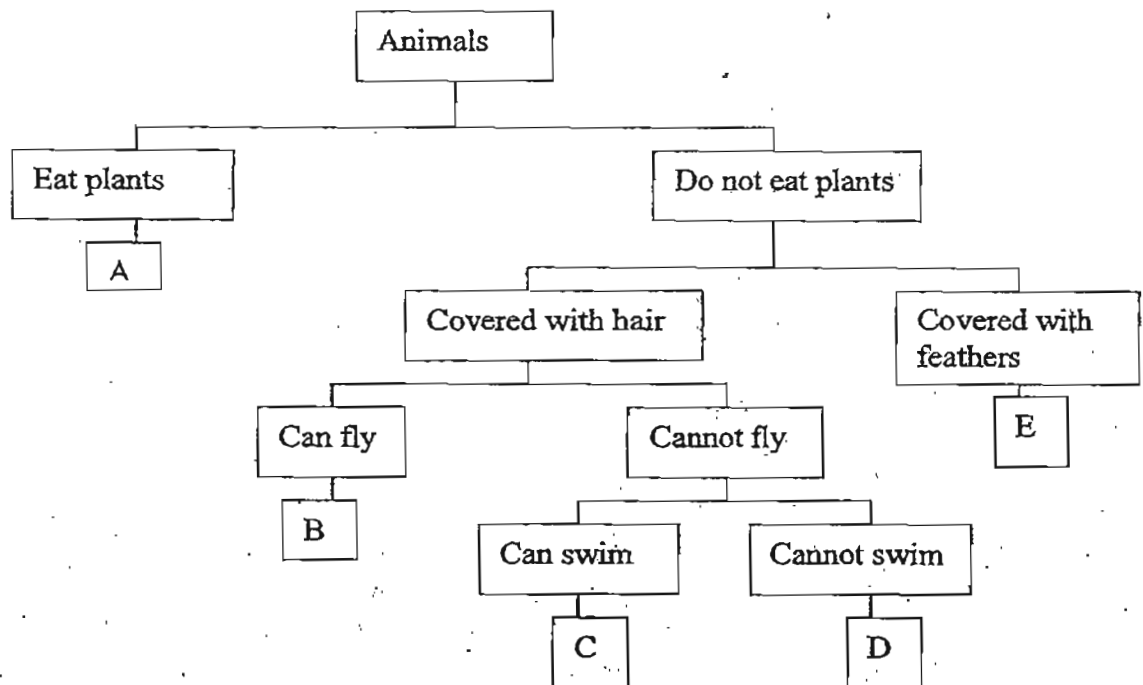
	Group X	Group Y
(1)	Make their own food	Cannot make their own food
(2)	Reproduce from seeds	Reproduce from spores
(3)	Fruits with many seeds	Fruits with one seed
(4)	Live on land	Live in water

9 Which of the following are not true about bacteria?

- A All bacteria are harmful to man.
- B Bacteria are micro-organisms.
- C Bacteria reproduce from spores.
- D Bacteria exist in different shapes.

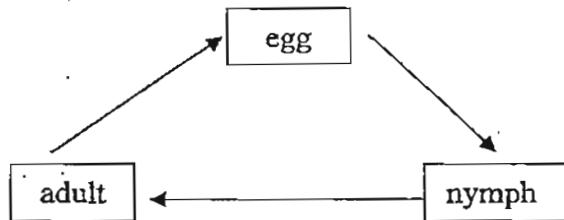
- (1) A, B and C
- (2) A, C and D
- (3) C and D only
- (4) A and C only

10 From the diagram below, it can be concluded that _____



- (1) B and E can fly.
- (2) A and E do not eat plants.
- (3) D and E live in the same place.
- (4) B and C have the same type of body covering.

- 11 The diagram below shows the life cycle of a grasshopper.



Which of the following animal/animals has/have a similar life cycle?

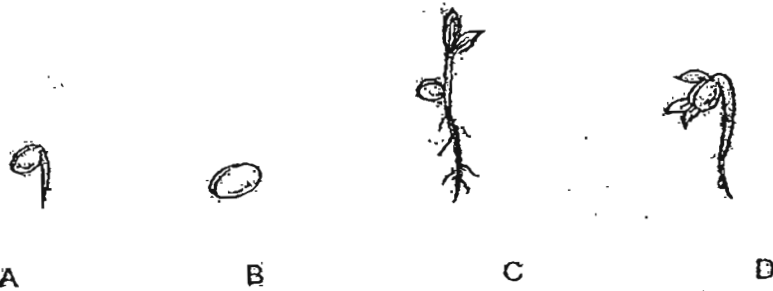
- A cockroach
- B dragonfly
- C praying mantis

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

- 12 Which of the young below does not look like its parents?

- (1) chick
- (2) mealworm
- (3) cockroach nymph
- (4) grasshopper nymph

13. Which of the following shows the correct order in the development of a seed?



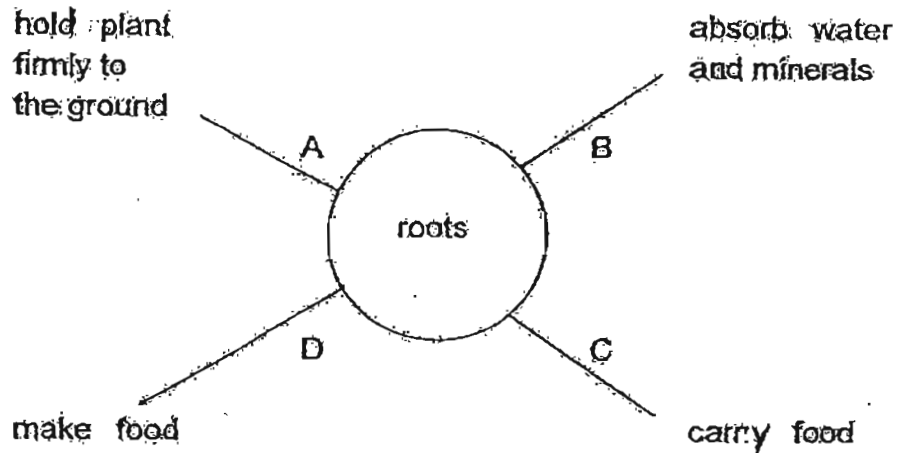
- (1) A → B → C → D
 (2) B → C → A → D
 (3) C → D → A → B
 (4) B → A → D → C

14. Which of the following parts form the reproductive system of a flowering plant?

- A. Stem
 B. Seed
 C. Fruit
 D. Flower

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

15. Study the concept map below.



Which of the functions above are correct?

- (1) A and B
 - (2) B and C
 - (3) C and D
 - (4) A and D
16. The tables and chairs in Tom's classroom are made of certain types of plastic and metal. Which of the following are the most likely reasons for using plastic and metal to make the tables and chairs?

	Metal	Plastic
(1)	hard	flexible
(2)	flexible	strong
(3)	strong	cheap
(4)	cheap	hard

17. Raju grouped some materials in the table below.

A	B
window grille	wooden chopsticks
sewing needle	car tyres
screw driver	cotton blouse
nail	leather belt
thumbtack	paper plate

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

	A	B
(1)	strong	flexible
(2)	Made of metal	Made of plastic
(3)	Sink in water	Float in water
(4)	Never alive	Once alive

18. Hui Hui put three items into a tub of water. She observed that only two of the items floated on the water.
What could these two items be?

- A. safety pin
- B. plastic bag
- C. bottle cap
- D. marble

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

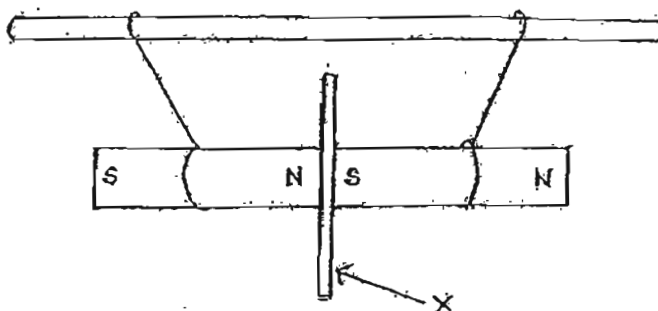
19. Mr Lee wants to make a hammock in his garden. Which of the following physical properties of the material must he consider for the hammock?



The material must be _____.

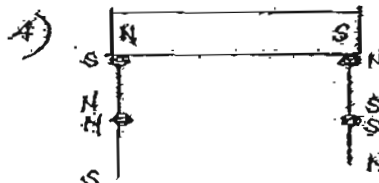
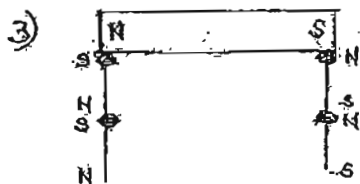
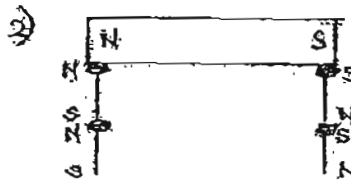
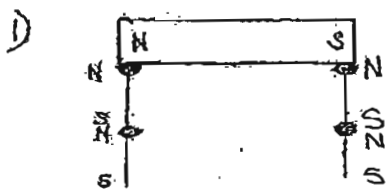
- A. hard
 - B. strong
 - C. flexible
 - D. transparent
- (1) A and B only
(2) B and C only
(3) C and D only
(4) A and C only
20. Which of the following methods will destroy the magnetism of a magnet?
- A. heating it for some time
 - B. dropping it from a height
 - C. stroking it with a non-magnetic object
 - D. coiling wires around it and running an electric current through the wire.
- (1) A and B
(2) A and C
(3) A, B and D
(4) B, C and D

21. Two bar magnets, suspended by strings, were tied to a wooden rod. A thin sheet made of material X was placed between the two magnets. The two bar magnets moved towards each other, as shown in the diagram below.

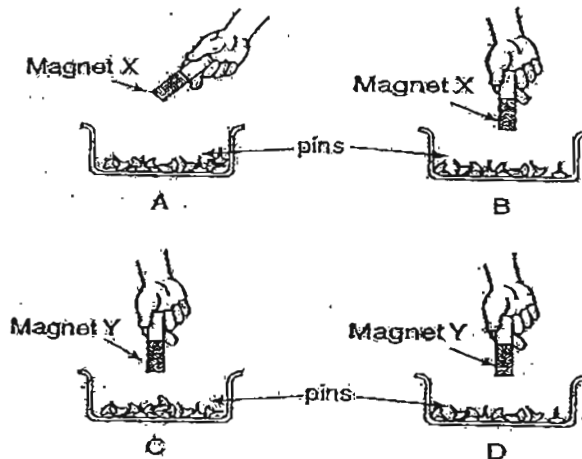


What is material X likely to be?

- (1) iron
 - (2) steel
 - (3) glass
 - (4) nickel
22. Which one of the following diagrams below names the poles of the pins correctly?



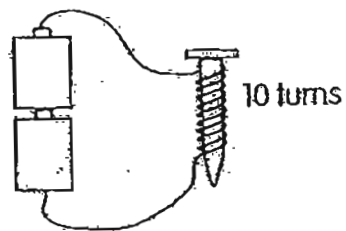
23. Peter wants to carry out an experiment to find out which magnet is stronger. Which two set ups must Peter use to ensure a fair test?



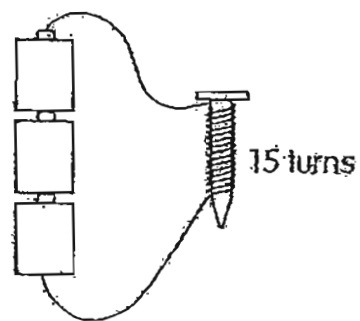
- (1) A and C
- (2) B and C
- (3) B and D
- (4) A and D

24. Look at the two set ups below

Set up M



Set up N

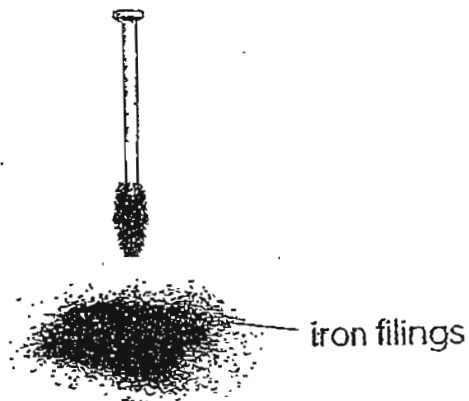


The iron nail in set up N would attract more paper clips because

- A. more batteries are used in set up N.
- B. the wire in set up N is longer.
- C. the wire is coiled more times around the nail in set up N.

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

25. Juney used the 'stroke' method to turn an iron nail into a magnet. She then placed the nail over some iron filings. She observed that not all the filings were attracted to the nail. Based on her observations, which of the following states the reason why the nail did not attract all the filings.



- (1) The nail had not been magnetised.
- (2) The iron filings had been magnetised.
- (3) The nail was not strong enough to attract all the iron filings.
- (4) The nail had not been stroked with the same pole of the magnet.

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END OF YEAR EXAMINATION 2011 PRIMARY 3 SCIENCE

BOOKLET B

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

INSTRUCTIONS TO CANDIDATES

Follow all instructions carefully.

Answer all questions.

Write your answers in this booklet.

Name: _____ ()

Class: Primary 3. _____

Date: 13 October 2011

Booklet A	/ 50
Booklet B	/ 40
TOTAL	/ 90

This booklet consists of 13 printed pages including this page.

Section B: 40 marks

For questions 26 to 42 write your answers in the spaces provided.
The number of marks available is shown in brackets [] at the end of each question or part question.

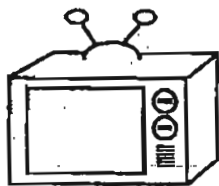
- 26 The picture below shows a snail.



- (a) What happens to the snail if you touch it? [1]

- (b) From your answer in part (a), what can you conclude about living things? [2]

- 27 The pictures below shows three items.



Television



Bean

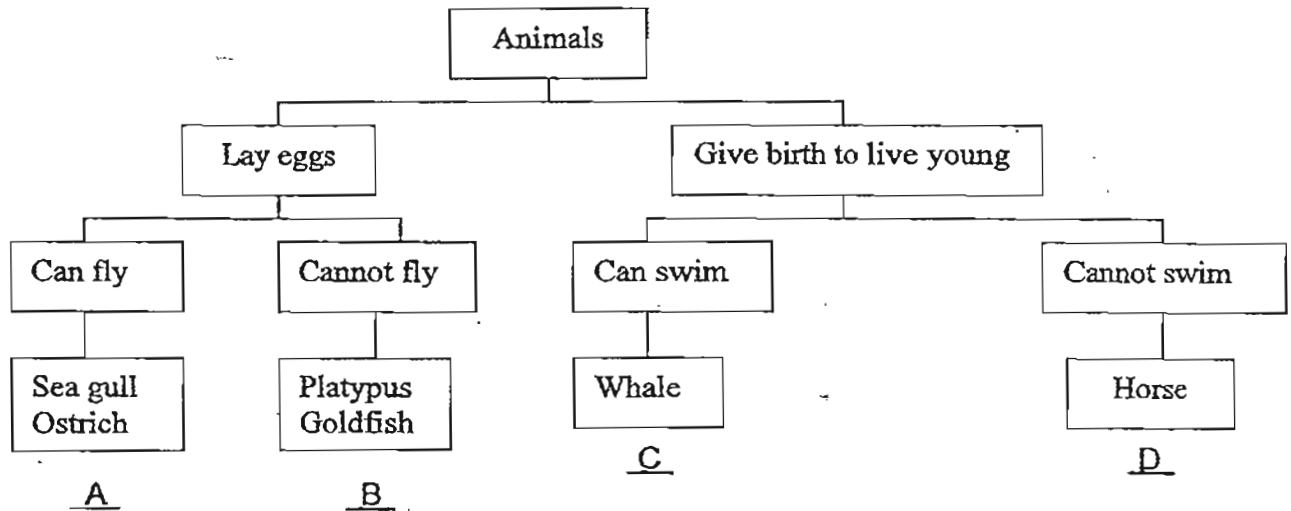


Dog

- (a) One of the items cannot be grouped with the others. Which item is it? [1]

- (b) Give a reason to explain your answer in part (a). [1]

- 28 The classification diagram below shows how ^{six}~~five~~ different animals are grouped. Use the information given to answer the following questions.



- (a) Write down one difference between the platypus and the horse. [1]
- _____
- (b) Which animal is wrongly classified? [1]
- _____
- (c) Where would you place a guppy in the classification chart above? [1]
- _____
- (d) Using the animals listed in the table below, give suitable headings, R, S, T and U to show how the animals can be re-grouped. [2]

Do not have hair on their bodies		Have hair on their bodies	
R	S	T	U
Sea gull	Goldfish	Whale	Horse

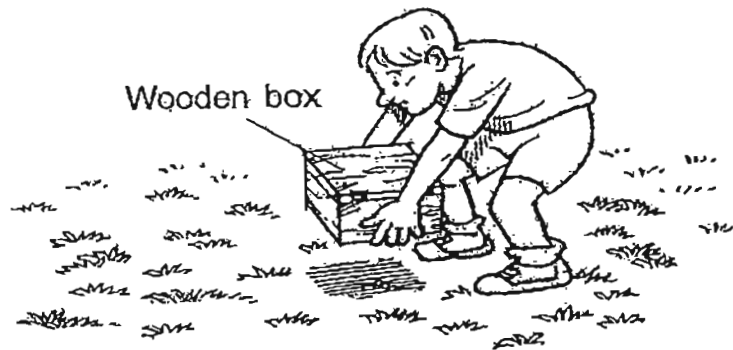
R _____

S _____

T _____

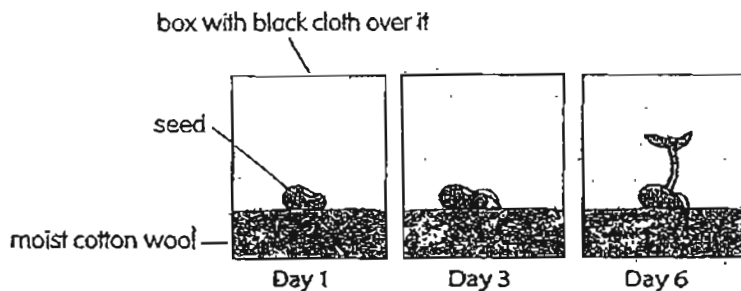
U _____

- 29 Matthew used a wooden box to cover a patch of grass in his garden. The diagram below shows Matthew removing the wooden box from the patch of grass that he had covered after one week. He observed that the patch of grass has withered.



- (a) Give a reason why the patch of grass has withered. [1]

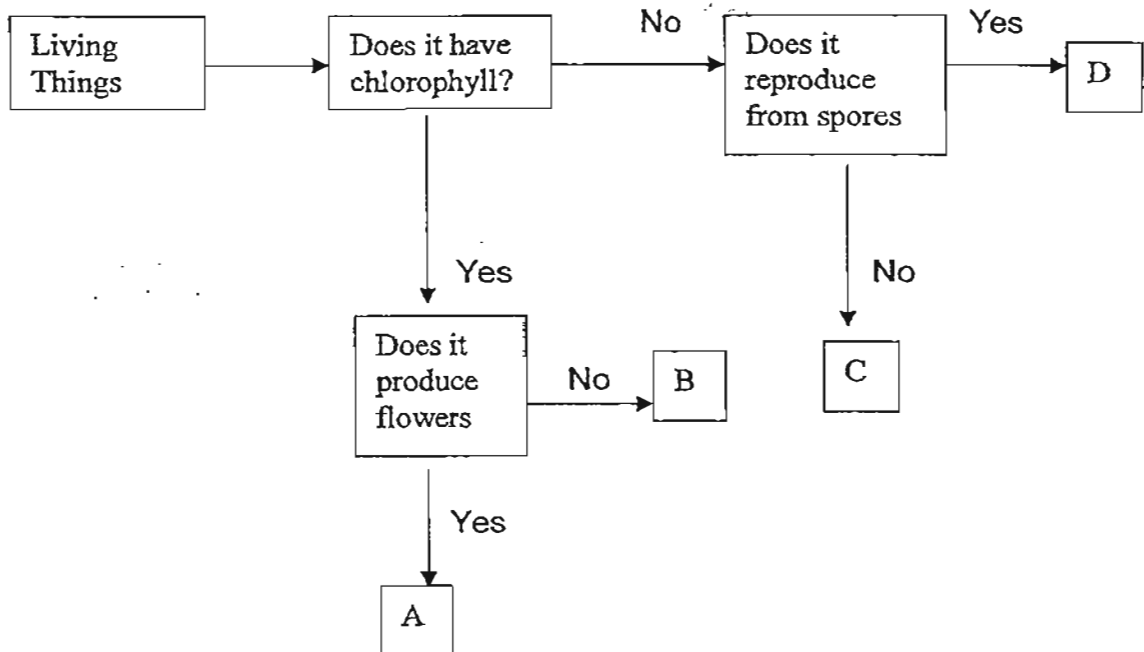
- (b) John set up an experiment, as shown below, to observe the germination of a seed over a period of six days.



What can he conclude about the germination of a seed at the end of the experiment? [1]

- (c) Where does the seed get its food from during germination? [1]

30



(a) From the above flow chart, which group represents fungi? [1/2]

(b) Give a reason for your answer in part (a). [1/2]

(c) Give one other characteristic of fungi that is not stated in the above flow chart. [1]

31 Mary studied the larva of an insect over a period of time. After some time, she noticed that it had grown bigger.

Write down the two main activities of the larva during this stage. [1]

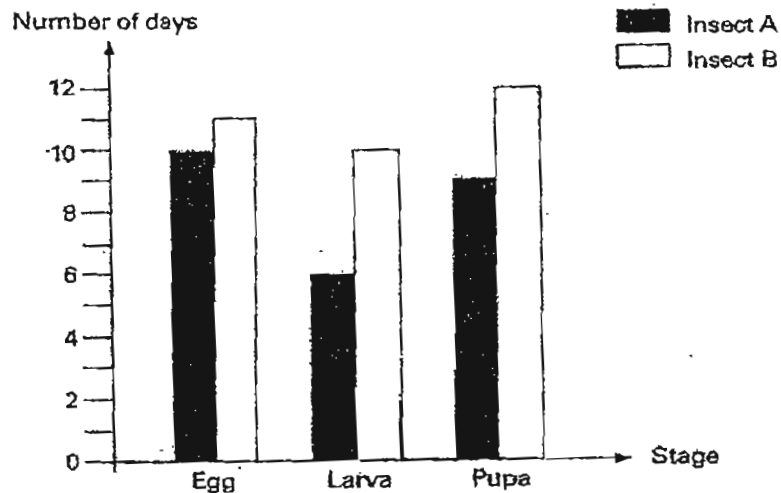
- 32 "The Aedes mosquito associated with dengue is an indoor dweller. Officers of the National Environmental Agency (NEA) had found 6 011 breeding sites in homes in the first half of this year. NEA officers will visit more than 100 000 homes in the next four months to seek and destroy all breeding sites." (Straits Times 28 July 2011)

(a) Write down 2 ways to prevent the breeding of mosquitoes in the home. [2]

(i) _____

(ii) _____

- 33 The graph below shows the number of days each stage of the life cycle of two insects lasted.



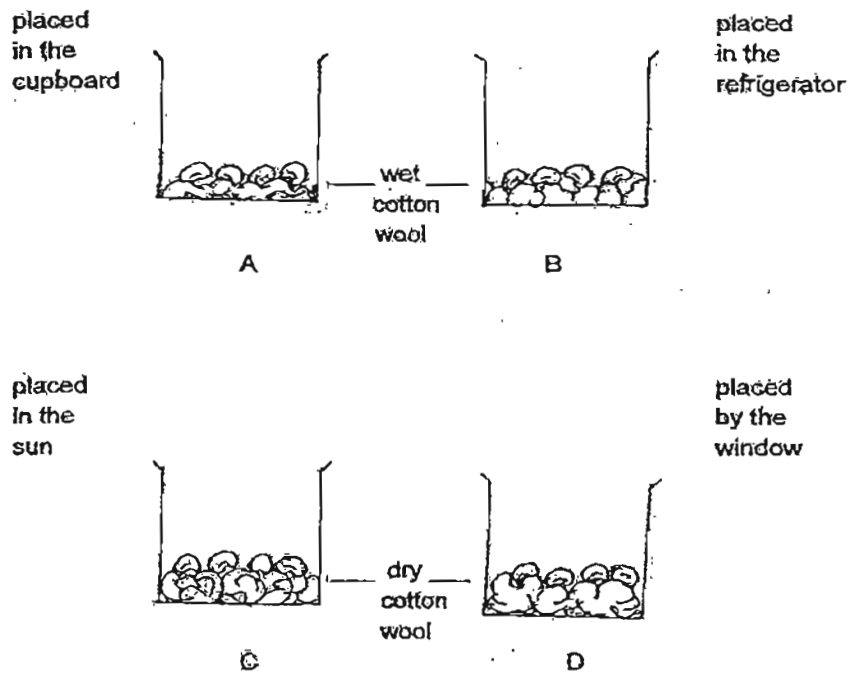
- (a) Which insect has a longer life cycle? [1/2]

- (b) Name an insect which has the same number of stages as insect A/B shown in the graph above. [1/2]

- 34 State one difference between the life cycle of a grasshopper and the life cycle of a beetle. [1]

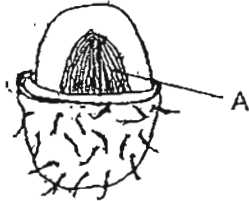
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- 35 Sumei wanted to find out the conditions needed for seeds to grow. She carried out an experiment as shown below.



- (a) In which beaker would the seeds germinate? Explain your answer. [2]

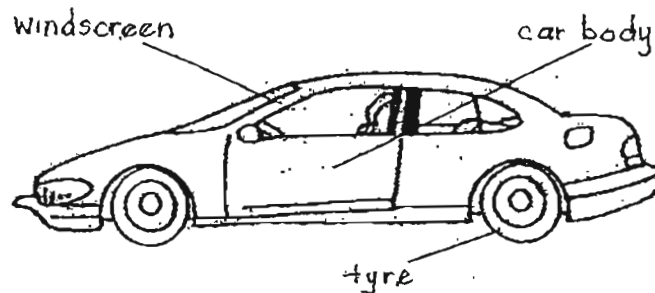
- 36 The diagram below shows a rambutan fruit that is cut open.



- (a) Name the part marked A [1]

- (b) What is the use of A to the plant? [1]

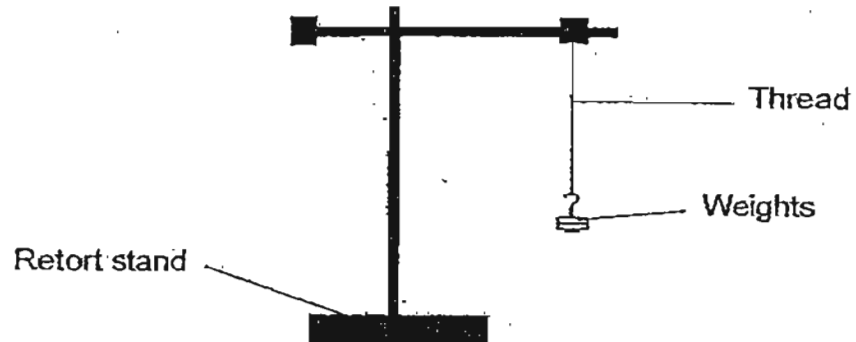
- 37 The picture below shows a car.



State the material used for making each of the parts named and the reason why the material is suitable. [3]

Object	Material used to make the parts	Why the material is suitable
Windscreen		
Tyre		
Car body		

- 38 Melissa conducted an experiment to test the strength of four different types of threads. She added weights to the hook as shown in the diagram below, one at a time, until the thread broke. Each weight is 100g.



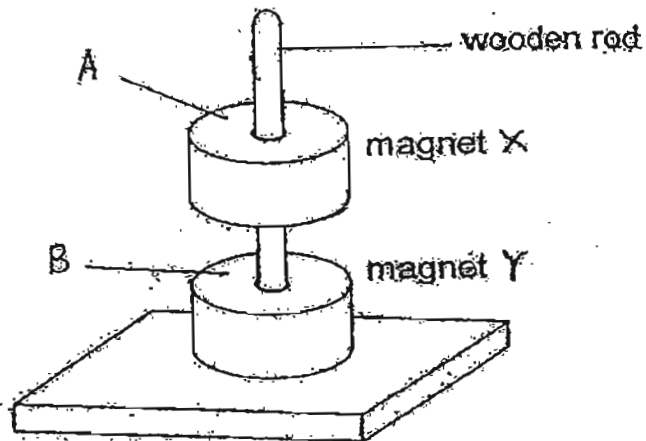
She recorded the results in the table.

	Thread E	Thread F	Thread G	Thread H
Number of weights before the thread breaks	2	3	4	5

- (a) Based on the information above, which thread/threads could you use to support a 350-gram object? [1]

- (b) Which thread is the weakest? [1]

- 39 Mei Mei placed two identical ring magnets X and Y, through a wooden rod as shown in the diagram below. She observed that magnets X and Y were at a distance from each other.



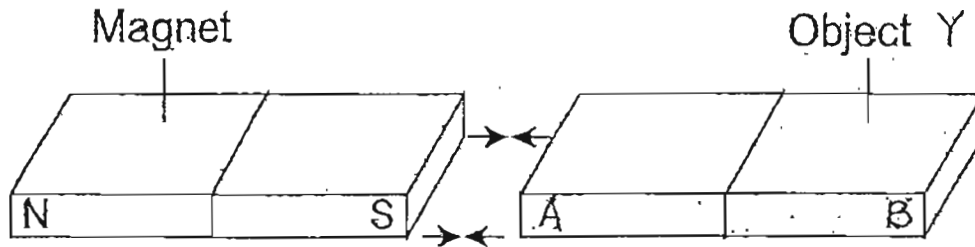
- (a) Explain why magnets X and Y behaved in this manner? [2]

- (b) What magnetic poles are A and B?

A: _____

B: _____

- 40 The set up below shows a magnet and an object Y.

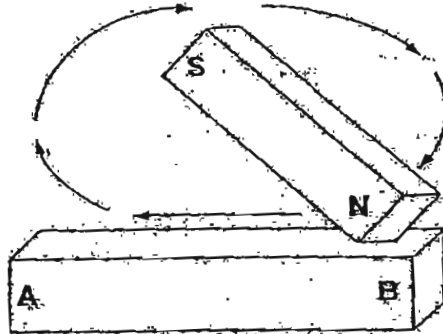


When the piece of magnet is placed near Object Y, Part A is attracted to the south pole of the magnet. When Part B is placed near the south pole of the magnet, it is also attracted to the magnet.

Based on the information, put a tick (✓) in the correct boxes below for the following statements. [2]

	Statements	True	False	Not possible to tell
(a)	Object Y is a magnet			
(b)	The north pole of the magnet will attract Part B of the object.			
(c)	The north pole of the magnet will not attract part A of the object.			
(d)	Object Y is made of steel.			

- 41 Timothy stroked an iron bar 25 times with a bar magnet, as shown in the diagram.



- (a) Name poles A and B of the iron bar after it becomes a magnet. [1]

A: _____

B: _____

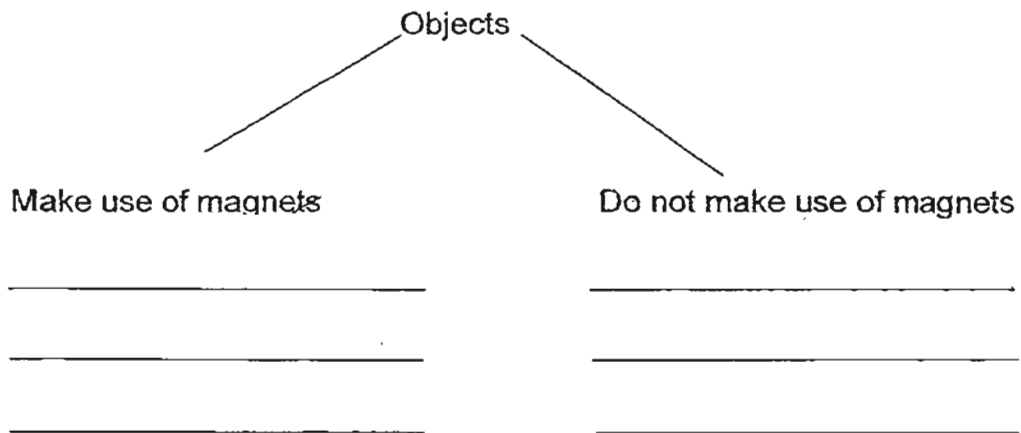
- (b) Timothy then replaced the iron bar with an aluminium bar and stroked it 25 times.

Will Timothy succeed in making the aluminium bar a magnet?
Why? [2]

42 Some objects are listed in the box.

metal ruler	electric bell	compass
refrigerator door	iron nail	aluminium tray

Group the objects according to the classification table below. [3]



END OF PAPER

Answer Ke

EXAM PAPER 2011

SCHOOL : MGS

SUBJECT : PRIMARY 3 SCIENCE

TERM : SA2

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

Q18	Q19	Q20	Q21	Q22	Q23	Q24	Q25
2	2	1	3	3	3	3	3

26)a)The snail will curl into its shell.

b)All living things respond to changes around them.

27)a)Television.

b)The television is not a living things while the dog and the bean are living things.

28)a)The platypus lays eggs whilst the horse gives birth to young alive.

b)Ostrich.

c)C.

d)R: Live on land.

S: Live in water.

T: Live in water.

U: Live on land.

29)a)It has no sunlight to make its food.

b)A seed need air, water and warmth in order to germination.

c)It gets its food from its seed leaves.

30)a)D.

b)It does not have chlorophyll and it reproduces by spores.

31)Feeding and moulting.

32)a)i)Spray the water surface with oil.

ii)Pour away all stagnant water.

33)a)Insect B.

b)Butterfly.

34)A grasshoppers life cycle has 3 stages where as a cockroach's life cycle has 4 stages.

35)A. It has air, water and warmth. Warmth does not need to come from the sun.

36)a)It is the seed.

b)It helps to reproduce.

37)Glass / It is transparent

Rubber / It is flexible

Metal / It is strong

38)a)G and H.

b)E.

39)a)It is because north pole of magnet Y is facing north pole of magnet X. Like poles repel.

b)A: South seeking pole.

B: North seeking pole.

40)a)F b)T c)F d)Not

41)a)A: South pole

B: North pole

b)No. Aluminium is not a magnetic object.

42)compass

Electric bell

Refrigerator door

metal ruler

iron nail

aluminium tray