HENRY PARK PRIMARY SCHOOL
PRIMARY 3 SCIENCE 2013
TEST 3

20

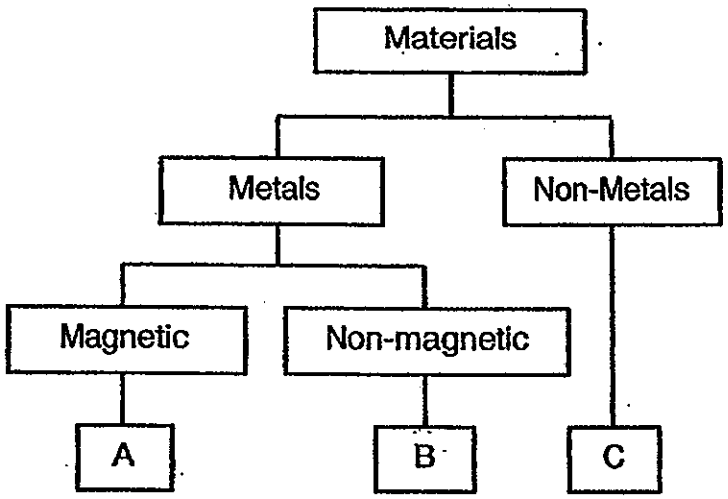
Duration of Paper: 45 min

Name: _____ Parent's Signature

Class: Primary 3_____ _____

Section A: Multiple-Choice Questions (5 x 2 marks = 10 marks)
For each question from 1 to 5, four options are given. One of them is the correct answer. Make your choice (1, 2, 3 or 4). Write your answer in the brackets provided.

1. The table below shows how some materials are classified.

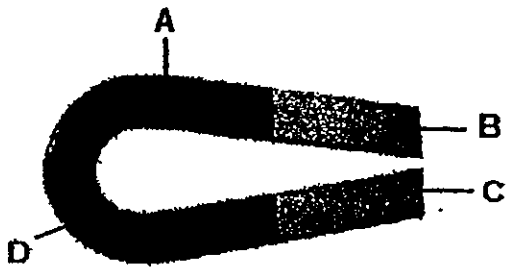


Which one of the following best represents material A, B and C?

	A	B	C
(1)	Copper	Fabric	Gold
(2)	Steel	Aluminium	Glass
(3)	Iron	Nickel	Wood
(4)	Copper	Cobalt	Rubber

( )

2. Danny wanted to find out which parts of a horse-shoe magnet are the strongest. He labelled the magnet with different parts A, B, C and D as shown below and recorded the number of paperclips attracted to each part.

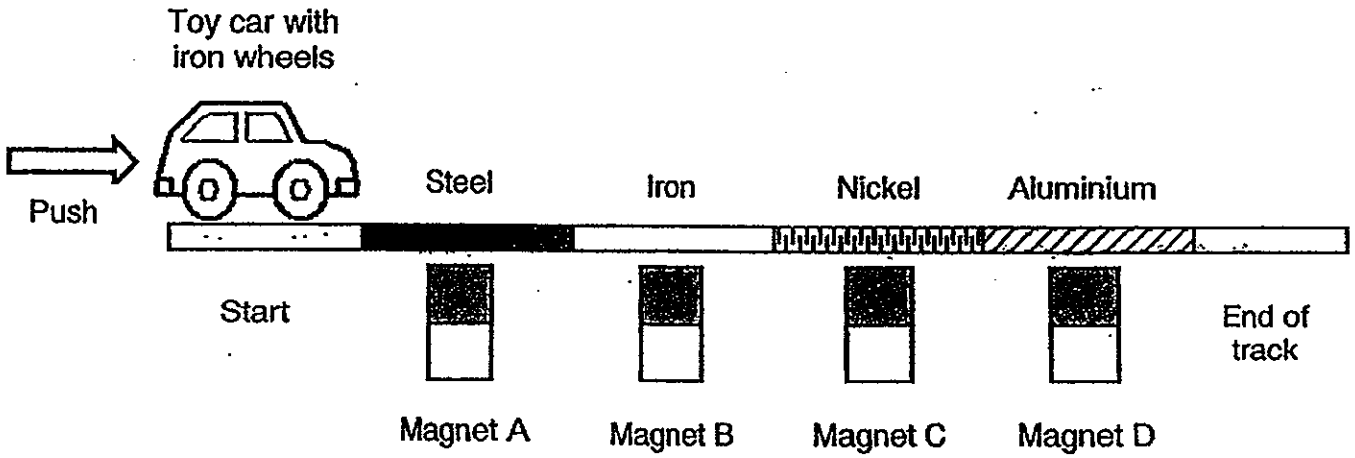


Which one of the following most likely shows the number of paper clips attracted by each part of the horse-shoe magnet?

	A	B	C	D
(1)	0	1	3	4
(2)	4	0	1	3
(3)	3	4	0	1
(4)	1	3	4	0

( )

3. The diagram below shows a toy car with iron wheels placed on a track made from different materials.

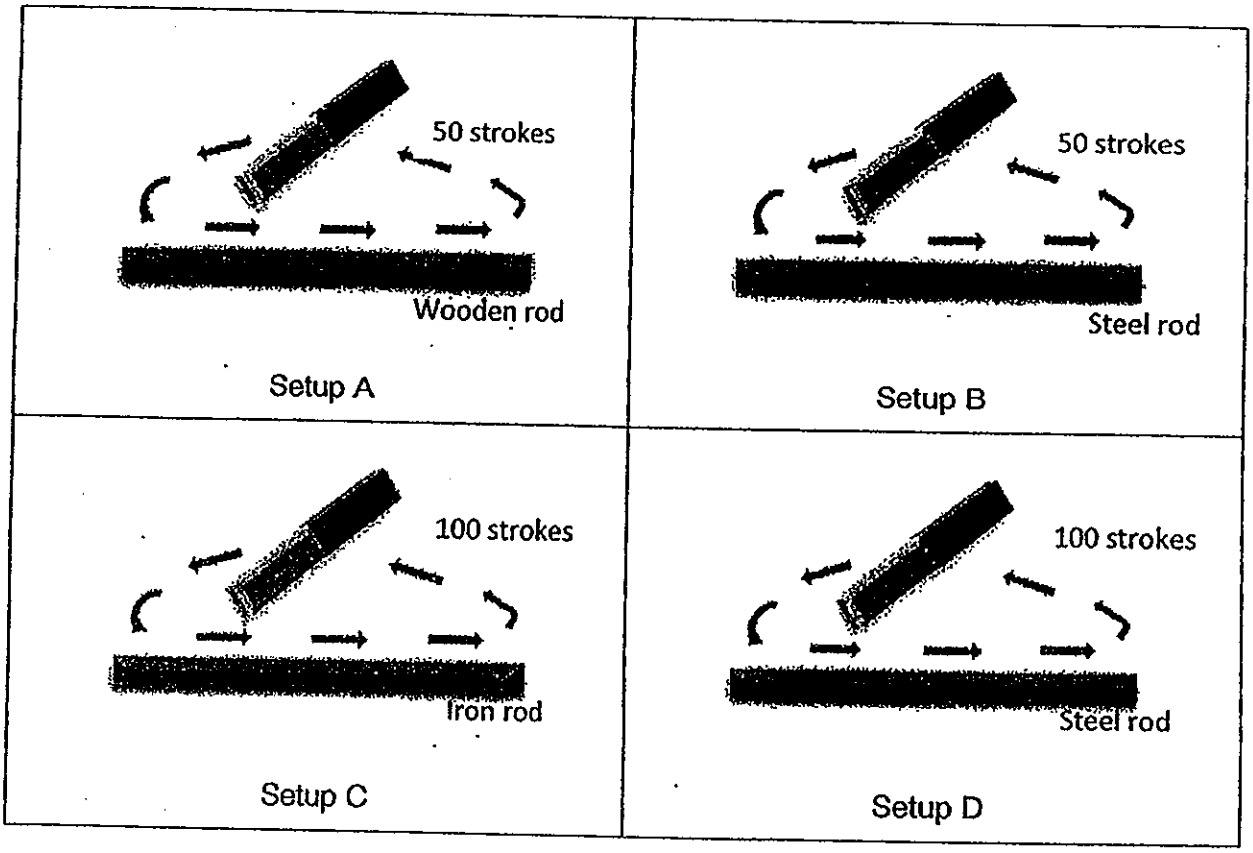


Which of the following best describes what happens to the car as it is pushed along the track as shown above?

(1) All the magnets will attract the iron wheels of the car.
(2) None of the magnets will attract the iron wheels of the car.
(3) Magnet A will stop the car because magnetism passes through steel.
(4) Magnet D will stop the car because magnetism passes through aluminium.

( )

4. Ali wanted to find out how the number of strokes affects the strength of a magnet.



Which two setups should he use for a fair experiment?

(1) Setup A and Setup B

(2) Setup A and Setup C

(3) Setup B and Setup D

(4) Setup C and Setup D

( )

5. John compared three rulers made of three different materials.

Ruler A: Made of metal

Ruler B: Made of plastic

Ruler C: Made of wood

John then made some observations of the rulers in the table below.

Ruler A is harder to bend than Ruler C.
Ruler B bends easier than Ruler A.
Ruler C breaks when bent.

Which property of materials is John comparing?

(1) Hardness

(2) Flexibility

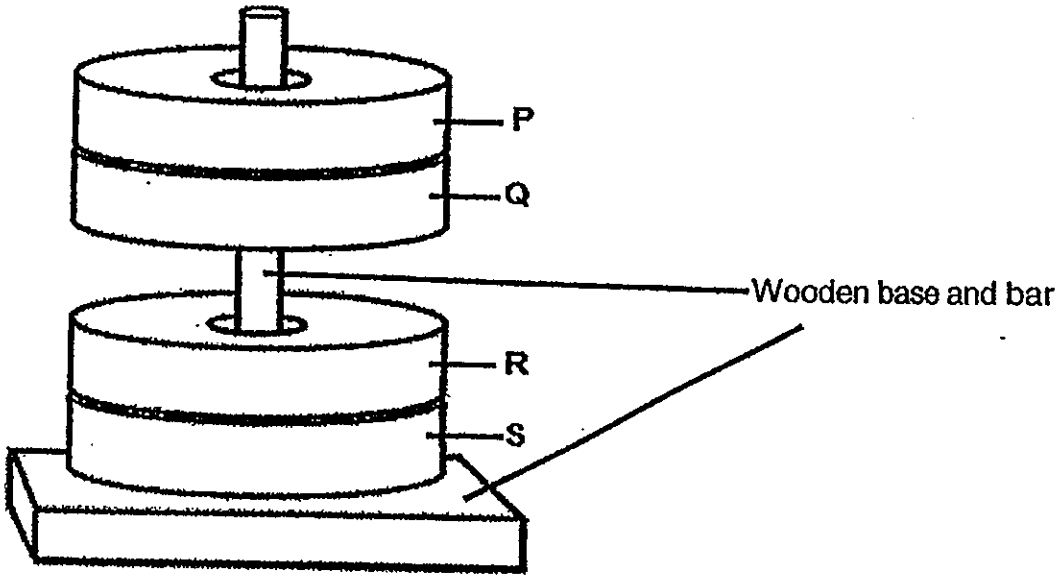
(3) Strength

(4) Able to float on water

( )

Section B: Structured Questions (2 x 2 marks = 4 marks)
For questions 6 and 7, write your answers in the spaces provided.

6. In the diagram below, P, Q, R and S are metal rings stacked on a wooden base with a wooden bar. They are either magnets or made of magnetic materials.



Based on the diagram above, put a tick (√) in the column that best describes metal ring P, Q, R and S. [2m]

Metal Ring	Definitely a magnet	Can be a magnet or magnetic metal
P		
Q		
R		
S		

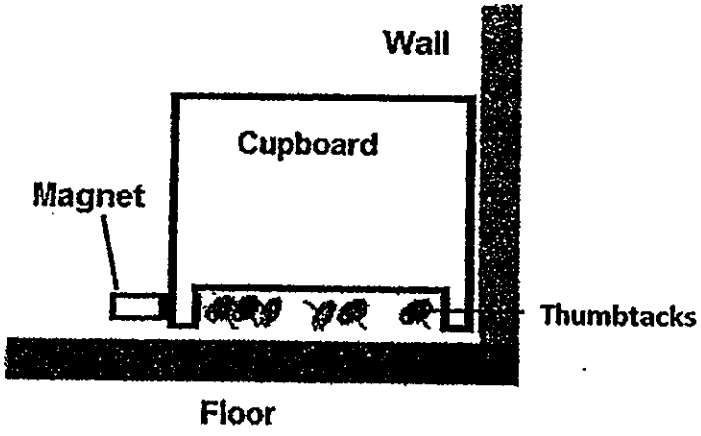
7. Match the following descriptions to the correct characteristics of living things.

Descriptions	Characteristics of Living Things
A frog lays eggs in the water.	Living things grow.
The mimosa plant closes its leaves when touched.	Living things reproduce.
Mary's feet cannot fit into her old shoes anymore.	Living things move by themselves.
Ben walks to school every morning.	Living things respond to changes around them.

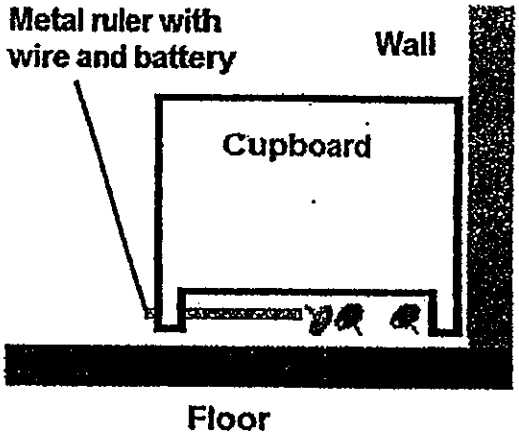
Section C: Open-Ended Questions (6 marks)

For questions 8 and 9, write your answers clearly in the spaces provided.

8. Lena dropped 6 iron thumbtacks onto the floor and they rolled under a heavy cupboard. She retrieved 3 of the thumbtacks by holding a small magnet on the floor by the cupboard.



Picture 1 – Using small magnet



Picture 2 – Using metal ruler, wire and battery

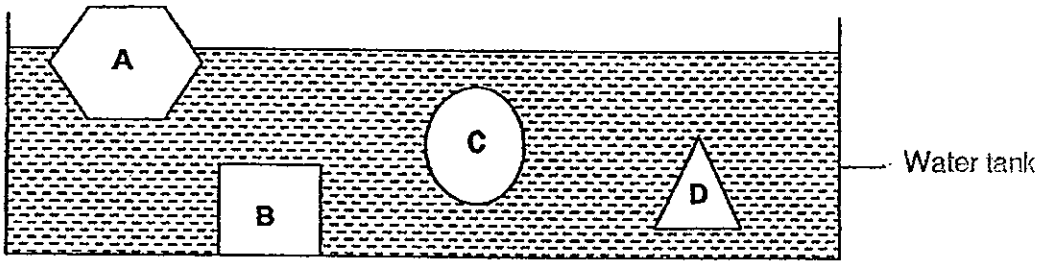
Lena tried sliding her metal ruler under the cupboard but it was too short to reach the thumbtacks. So she coiled some wire around her long metal ruler, connected the ends of the wire to a battery and pushed the ruler under the cupboard. This time she retrieved 2 thumbtacks.

(a) Lena retrieved 3 thumbtacks with her small magnet.
Give a reason why the other thumbtacks were not attracted to her small magnet. [1m]

(b) Explain how Lena retrieved 2 more thumbtacks using a ruler, wire and battery. [1m]

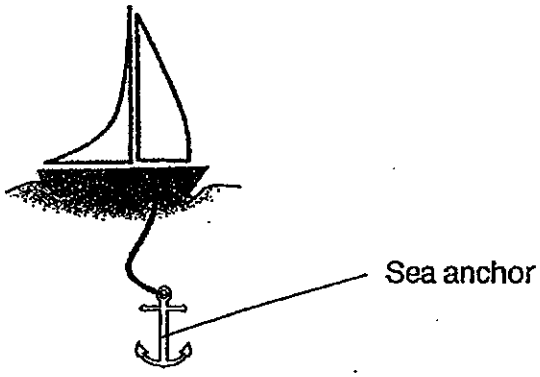
(c) State <u>one</u> change Lena could make to her setup in Picture 2 to retrieve the last thumbtack **without changing the ruler.** [1m]

9. Janet wanted to find out if the material of an object will affect whether it floats or sinks in water. She conducted her experiment by dropping 4 objects, A, B, C and D made of different materials into the water tank as shown below.



(a) Based on the diagram above, is the experiment a fair test?
Explain your answer. [2m]

Fishermen release a sea anchor into the sea to stop their boat from moving. The anchor drops to the bottom of the sea bed and allows them to fish at the same spot without the boat moving.



(b) Based on Janet's experiment results above, which material, A, B, C or D would be most suitable for a sea anchor? [1m]

--- END OF PAPER ---

ANSWER SHEET

EXAM PAPER 2013
SCHOOL : HENRY PARK PRIMARY SCHOOL
SUBJECT : PRIMARY 3 SCIENCE

TERM : CA2

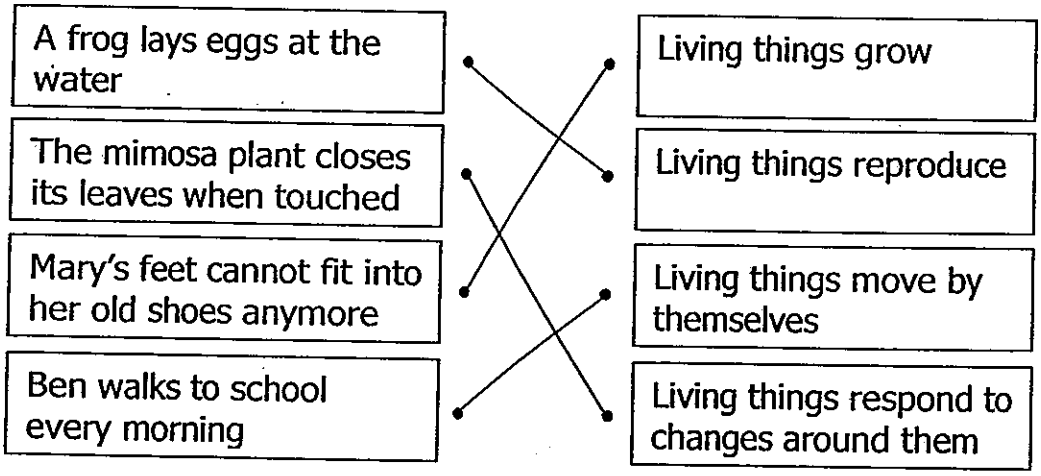
Q1	Q2	Q3	Q4	Q5
2	4	4	3	2

Section B

Q6)

Metal Ring	Definitely a magnet	Can be magnet or magnetic material
P		√
Q	√	
R	√	
S		√

Q7)



Q8

a) The magnetic strength is not strong enough to attract the thumbtacks
b) The metal ruler became an electromagnet
c) Out more batteries and turn more coils

Q9

a) No. They are not the same shape or size
b) Material B