1.8

Henry Park Primary School
Primary 4 Science
2023 Weighted Assessment 2
Section A

8

Name: _____ ( ) Duration: 35 minutes

Class: Primary 4 ____ Parent's Signature: _____

Section A [8 marks]

This section consists of two performance tasks. Follow the instructions carefully to complete the task. Write the answers in the spaces provided.

Read all the instructions carefully before starting on this section.

1. Cherie wanted to investigate if the number of strokes by a bar magnet affects the strength of a temporary magnet. She was given the following materials:

Material list:
- 1 iron nail
- A bar magnet
- 10 staples

(a) Tick (✓) the variables that must be kept the same in order for this experiment to be a fair test. [1]

Variables	Kept the same
Direction in which the iron nail is stroked	✓
Number of strokes	
Length of the iron nail	
Number of staples	

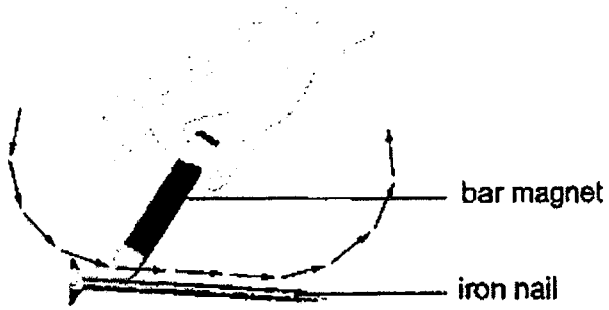
(b) What should Cherie measure in order to come to a conclusion? [1]

_____

_____

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(c) Now, take an iron nail and stroke it with the bar magnet **30** times in one direction to magnetize it.

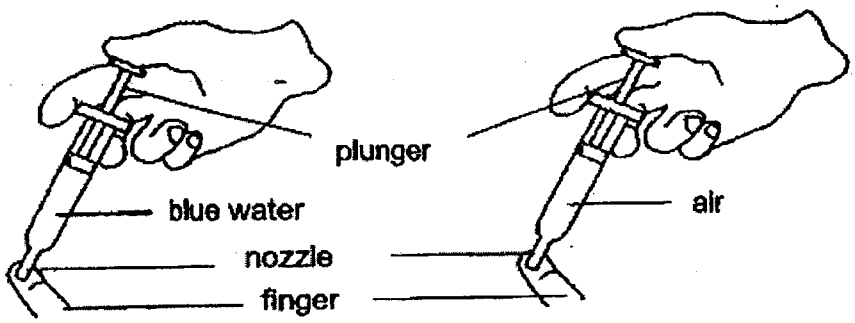


Place the iron nail near the staples and record down the number of staples the nail attracted. [1]

Number of staples attracted: _____

2. You are given two identical syringes. One syringe is filled with 10 ml of blue water while the other syringe is filled with 10 ml of air.

Follow what you see in the picture below.
One at a time, cover the nozzle of each syringe with a finger and push the plunger of the syringe.



(a) Record your observation in the table below. [1]

Substance	Can the plunger be pushed in? (Yes/No)
blue water	
air	

(b) Explain your observation in part (a) using what you have learnt about the properties of matter. [2]

_____

_____

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(c) Predict what you will observe when the plunger is pushed into an identical syringe that is filled with 10 ml of sand. [1]

(d) Explain your answer. [1]

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Henry Park Primary School
Primary 4 Science
2023 Weighted Assessment 2
Section B

7

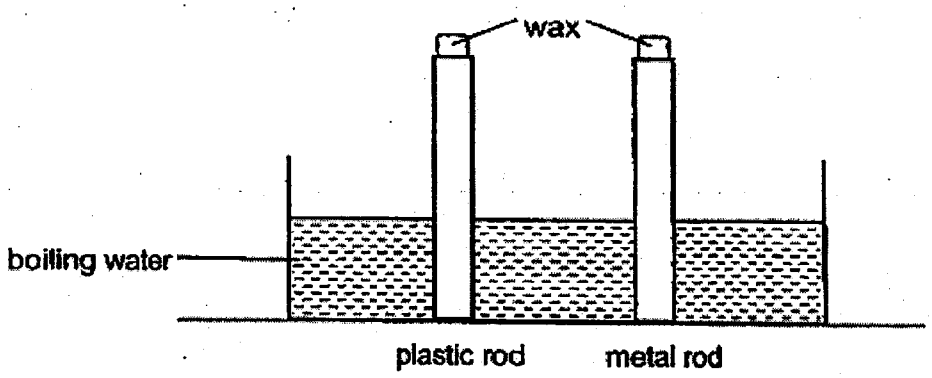
Name: _____ ( ) Duration: 35 minutes

Class: Primary 4 ____ Parent's Signature: _____

Section B [7 marks]
This section consists of short-answer and open-ended questions. Read each question carefully and write the answers in the spaces provided.

Read each question carefully and write the answers in the spaces provided.

1. Yong Sheng placed a plastic rod and a metal rod into a container of boiling water as shown below. Equal amounts of wax were placed on both rods.



Fill in the blanks in the paragraph below to explain which wax melts first.

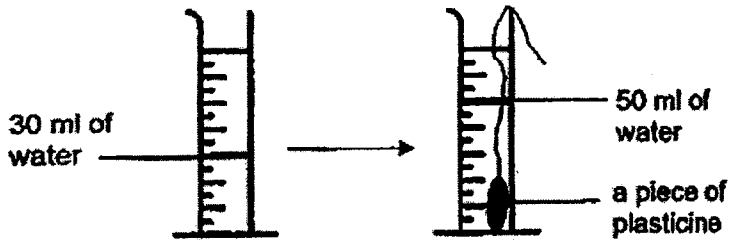
Which wax will melt first? [2]

Wax on the _____ rod will melt first.

Metal is a _____ conductor of heat than plastic. Heat from the _____ passes through the metal rod to reach the wax at a _____ rate.

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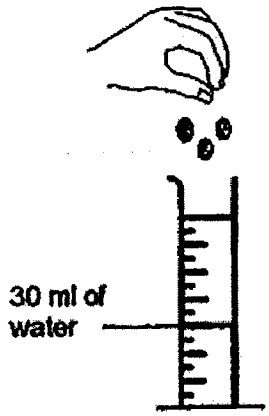
2. Siti conducted an experiment by filling up a measuring cylinder with 30 ml of water. She then lowered a piece of plasticine into the measuring cylinder and observed that the water level rose to 50 ml.



(a) What is the volume of the plasticine? [1]

_____ml

4. Siti took out the piece of plasticine and divided it into three smaller pieces. She placed the three smaller pieces of plasticine back into the same measuring cylinder without spilling any water.



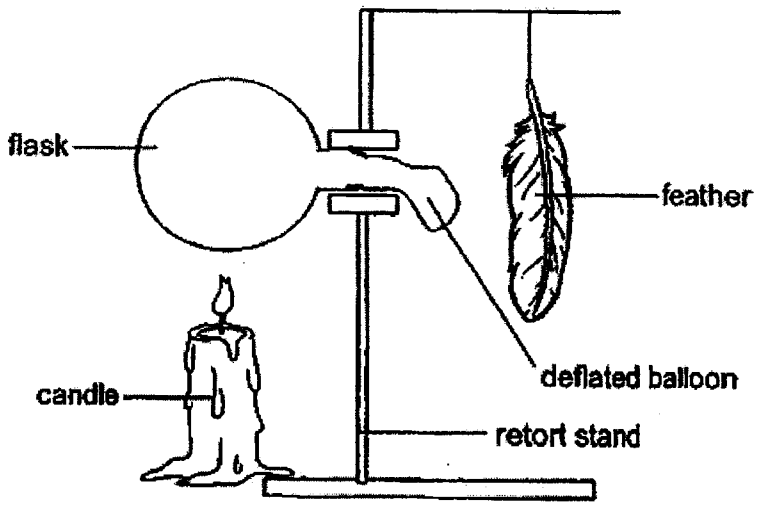
(b) What would be the reading of the water level? Explain your answer using the properties of matter. [1]

_____

_____

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3. Shafiq set up a flask with a deflated balloon near a feather as shown below. The flask was supported by a retort stand. He heated the flask using a candle.



(a) Predict what will happen to the feather after a while. [1]

(b) Explain your answer for part (a). [2]

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SCHOOL : HENRY PARK PRIMARY SCHOOL
LEVEL : PRIMARY 4
SUBJECT : SCIENCE
TERM : WA2 2030

CONTACT :

Section A

Q1)

a)

Variables	Kept the same
Direction in which the iron nail is stroked	✓
Number of strokes	
Length of the iron nail	✓
Number of staples used	✓

b)Cherie should measure the amount of staples attracted by the iron nail.

c)9

Q2)

a) No
Yes

b) Air is a gas can be compressed and does not have a definite volume while water the blue is a liquid be compressed and have a definite volume.

c) The plunger cannot be pushed in.

d) Sand is a solid so it has a definite volume and cannot be compress.

SECTION B

Q1) Wax on the metal rod will melt first.
Metal is a better conductor of heat than plastic. Heat from the boiling water passes through the metal rod to reach the wax at a faster rate.

Q2) a)20
b)50ml. The plasticine is a solid and solid have a definite volume.

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Q3)	a) The feather will move away from the ballon. b) Air in the flask gained heat from the candle and expanded causing the ballon to inflate. The inflated ball pushed the feather.
Q4)	

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