



**Kulleġġ San Nikola Sekondarja tas-Subien, In-Naxxar**  
**St. Nicholas College Naxxar Boys Secondary**  
**Half-Yearly Examinations**  
**February 2016**

Core  
Curriculum  
Program

**FORM: 3**

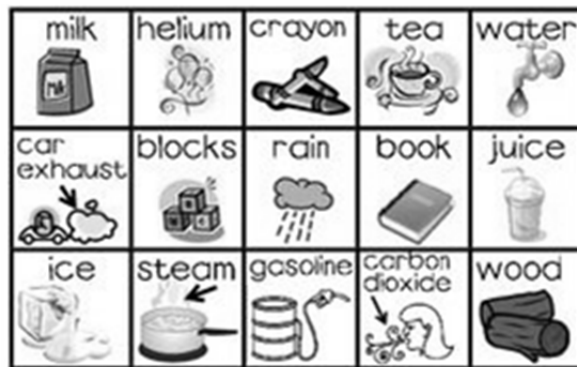
**SUBJECT: Science and Technology**

**TIME: 1 hr**

**Name:** \_\_\_\_\_

**Class:** \_\_\_\_\_

1. The pictures below show different objects.



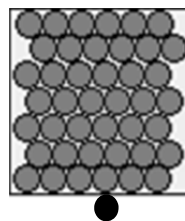
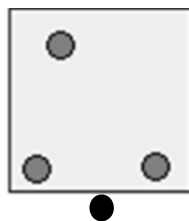
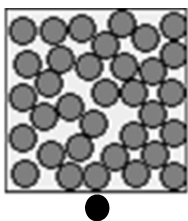
a. Draw a circle around **TWO** pictures showing a solid object. 2 marks

b. Choose **ONE** picture showing a:

i. Liquid: \_\_\_\_\_ 1 mark

ii. Gas: \_\_\_\_\_ 1 mark

c. Match the following particle diagrams to the correct state of matter.



●  
**Solid**

●  
**Liquid**

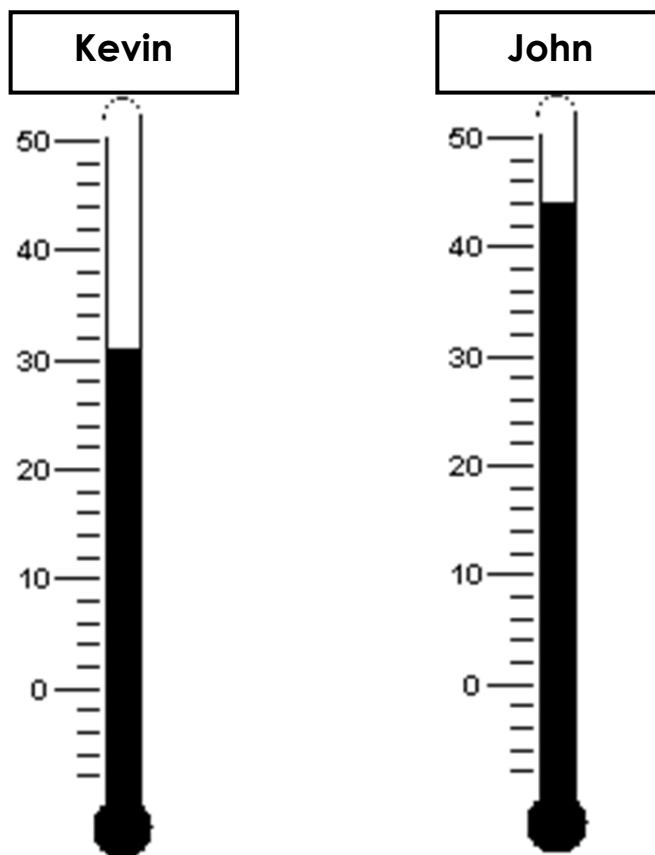
●  
**Gas**

3 marks

2. Kevin and John were feeling sick and went to the doctor. The doctor checked their temperature.
- a. What instrument does the doctor use to measure the temperature?

\_\_\_\_\_ 1 mark

- b. The following diagrams show Kevin's and John's temperature. What value do they read? Remember to write the units.



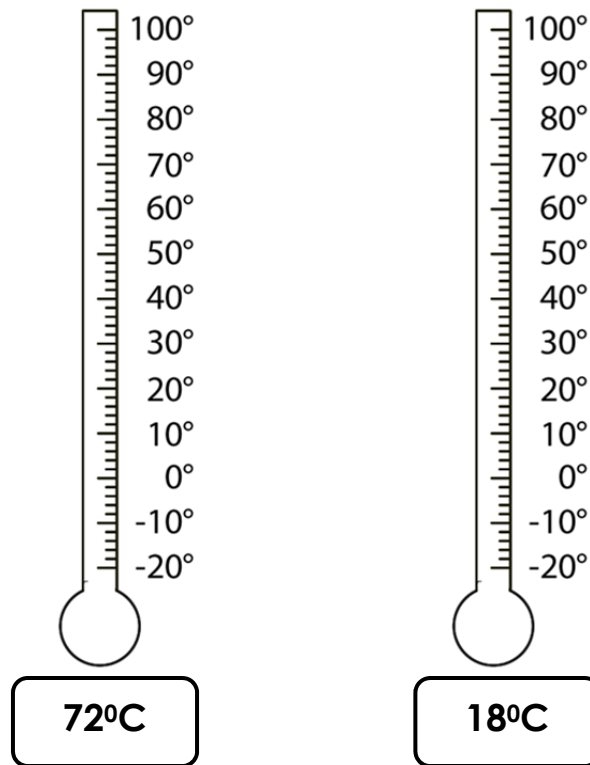
- i. Kevin's temperature is \_\_\_\_\_.
- ii. John's temperature is \_\_\_\_\_.

2 marks

Name: \_\_\_\_\_

Class: \_\_\_\_\_

- c. Shade the thermometer to show the following values:



2 marks

3. Use **some** of the words in the box below to fill in the blanks.




solid	boiling point	50°C	evaporation
0°C	liquid	water vapour	gas
melting point			

Water is a liquid. When you freeze water it becomes a \_\_\_\_\_ called ice. Liquid water becomes ice when the temperature is \_\_\_\_\_. Liquid water can be heated to form a gas called \_\_\_\_\_. The temperature at which liquid water becomes a gas is 100°C. This is called the \_\_\_\_\_ of water.

4 marks

4. The pictures below show different apparatus that you can use to separate different mixtures.

a. Match the following mixtures with the correct apparatus.

Fine sand and pebbles			3 marks
Marbles and paper clips			
Fine sand and salt			

5. Salt is soluble in water while sand is insoluble.

a. Define the term '*soluble*'.

---

---

1 mark

b. Name **ONE** other substance which is:

i. Soluble in water: \_\_\_\_\_

ii. Insoluble in water: \_\_\_\_\_

2 marks

6. Fill-in the blanks using the words in the box below.

a.

Filter – Filtrate – Funnel - Residue

i. The liquid and bits of solid are poured into the \_\_\_\_\_ paper in the funnel.

ii. The paper traps the solid. The solid is called the \_\_\_\_\_.

iii. The liquid goes through the filter paper. It is called the \_\_\_\_\_.

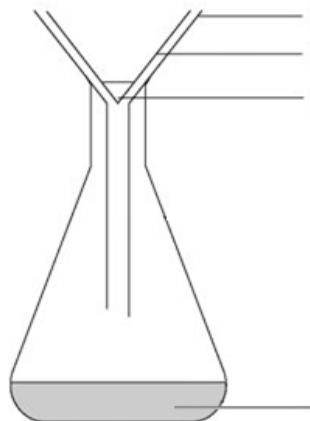
3 marks

b. The diagram below shows the apparatus used to separate a mixture of sand and water.

Label the diagram using the words below.

4 marks

**Residue    Filter paper    Funnel    Filtrate**



c. Write the name of the separation technique shown in the diagram above.

\_\_\_\_\_

1 mark

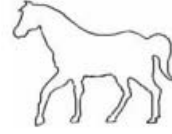
7 The following are pictures of things shown in either 3-D or 2-D. Label the proper box.



Van

2D

3D



Horse

2D

3D



Cylinder

2D

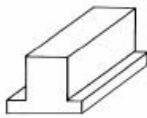
3D



Chess board

2D

3D



Beam

2D

3D



Hammer

2D

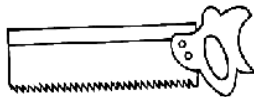
3D

$\frac{1}{2} \times 6 =$   
3 marks

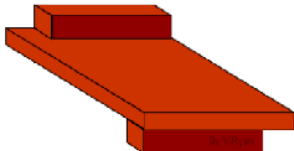
8a Tools are important in design and technology. Match the following tools with their proper name.



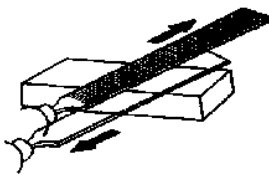
Hammer



Bench Hook



Screwdriver



Back Saw



Flat File

5 marks

b John wants to saw (cut) a piece of wood. He should use two of the above tools. Draw a circle around these two tools.

2 marks

- 9 Peter is designing and making a desk tidy for his 5 year old brother. The following is the design brief he wrote.

Design and make a desk tidy for a student to be used on his desk at home.



- a Underline three (3) keywords in the above design brief. 3 marks
- bi He is going to make the base from wood, **underline** the best shape of wood he should use from the following list.



Wood Block



Wood Dowel



Wood sheet

1 mark

- b ii Why have you chosen the above form.

---

2 marks

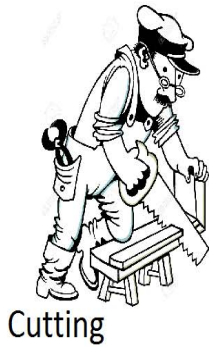
- b iii Is the material natural wood or manufactured wood? Underline the answer.

1 mark

Natural Wood

Manufactured Wood

ci In order to make the base peter should use the following processes, which are not in order. Write the correct number next to diagram in order.



Cutting

Step



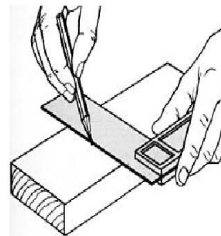
Sanding

Step



Painting

Step



Marking out

Step

4 marks

cii Peter wants to paint the wood such that the wood grain (vina) will be visible. Underline the proper finish peter should use.



Paint



Varnish

1 mark

ciii Why have you chosen the above finish.

---



---

2 marks



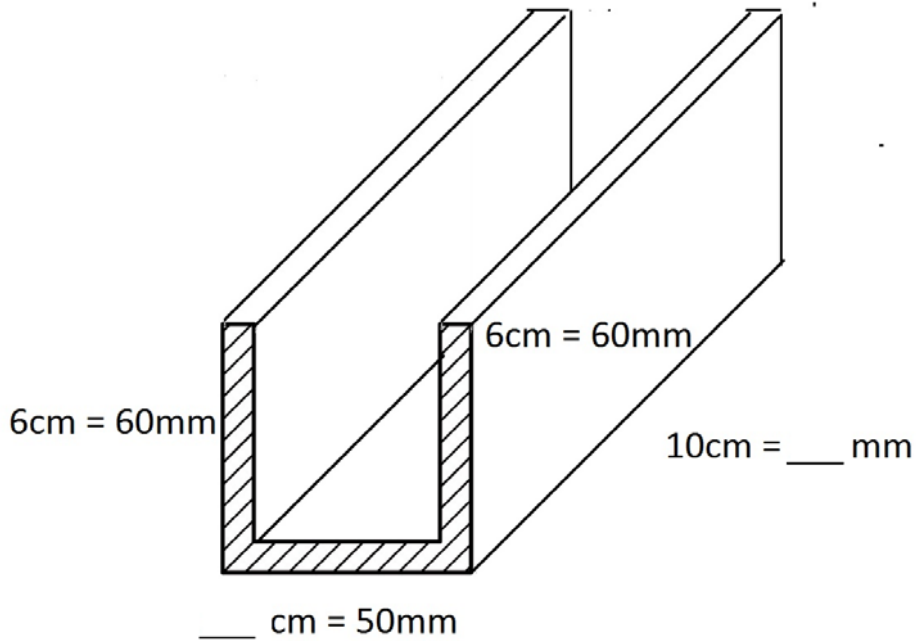
10a Peter wants to make a paper holder by bending a piece of plastic. Underline the plastic he should use:

Thermosetting Plastic

Thermoplastic.

1 mark

bi Peter is going to make the following piece of plastic by bending it. Fill in the proper lengths.

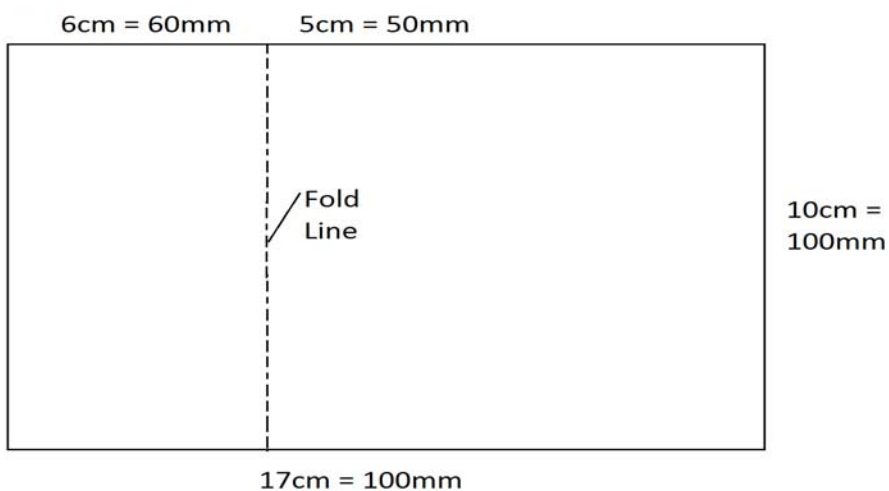


2 marks

ii Before he will cut the plastic he is going to make a model so he will not waste material. Mention one material he could make the model of.

1 mark

iii The following is the model. One fold line is drawn. Draw the other fold line.



2 marks