

WYNBERG GIRLS' JUNIOR SCHOOL
GRADE 6 – NATURAL SCIENCE PAPER
MARCH 2012

50 Marks

1. Copy this table into your book. Tick the words that describe the materials listed below: (4)

	Conducts Electricity	Conducts Heat	Transparent	Flexible
Rubber glove				
A drinking glass				
A metal fork				

2. Thandi has decided to make a box house with a roof constructed from tinfoil. After covering the roof with tinfoil she placed the box house outside and recorded the temperature over a day. These were her findings:

Roof Material: Tinfoil	
Time of day	Air temperature measured inside the box in degrees Celsius (°)
08:00	25 ° C
10:00	35 ° C
12:00	50 ° C
14:00	45 ° C
16:00	40 ° C

- 2.1 Use these measurements to plot a **line graph** showing Thandi's findings. (11)
- 2.2 Do you think this box house is comfortable to live in? Explain why or why not. (2)
- 2.3 Draw a labeled diagram to illustrate what happens to sunlight energy when it shines on the roof of the house that Thandi constructed. (2)
3. Why is plastic such a useful material? (5)
4. Name two atoms that make up plastic. (2)
5. Explain how the injection moulding process is used to produce plastic items. (7)
6. List four ingredients that are used to make glass? (4)
7. At what temperature do these ingredients melt to form molten glass? (1)
- 8.1 What process must most ceramics go through in order to make them water-resistant? (1)
- 8.2 Which ceramic material is an exception because it is naturally water-resistant? (1)
9. Explain what is meant by bisque firing. (2)
10. What is special about the ceramic tiles in which space shuttles are covered? (3)
11. Illustrate and label 5 uses of an empty plastic 2 ℓ cooldrink bottle. (5)