

Y13 Applied Technology Worksheet # 10

Note: Students to attempt this at the back of their exercise book.

QUESTION 10

DESIGN

(20 marks)

Design Problem:

Most schools around the country do not have a proper bus shelter. During wet weather students often get wet and are vulnerable to cold and sickness.

Design Brief:

Design a **bus shelter** that will withstand any weather conditions.

Specifications:

The **bus shelter** should:

- be safe for the user;
- be constructed with affordable materials;
- have the benches fixed to the side to cater for ten people;
- be elegant and stylish, incorporating current market trends;
- be made from a sound construction using available materials.

Requirements:

- Produce pictorial freehand sketches of **two** possible solutions and **label** the parts. (5 marks)
- Draw a pictorial rendered freehand sketch of the final solution taking ideas from the two possible solutions. (4 marks)
- Produce a detailed drawing to show the joint between any two members. (3 marks)
- Explain how the bench is fixed to the side of the shelter. (2 marks)
- Evaluate your final solution on the following criteria:
 - Safety
 - Materials used
 - Functionality(6 marks)

