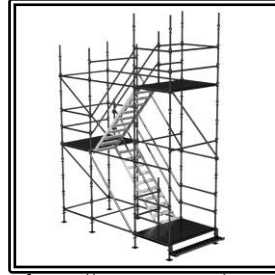


# Y13 Applied Technology Worksheet # 1

## CARPENTRY AND JOINERY

- (a) Study the diagram below and answer the questions that follow.



Source: <https://www.generationscaffolding.com>

- (i) Identify the structure shown above. **(1 mark)**
  - (ii) List **two** reasons for using the above structure in building industry. **(2 marks)**
  - (iii) Differentiate between **fabric** and **foam** as materials used in building. **(2 marks)**
- (b) 12 bags of sand are used to complete the floor.
- (i) State the correct ratio of concrete mix proportions for sand and coarse aggregates if cement ratio is **1**. **(1 mark)**
  - (ii) Calculate the number of bags of **cement** and **coarse aggregates** needed to complete the floor. **(2 marks)**
- (c) Differentiate between **clay blocks** and **bricks**. **(2 marks)**
- (d) Study the diagram below and answer the questions that follow.
- (i) Identify the construction equipment shown above. **(1 mark)**
  - (ii) State two advantages of using the above equipment in the building industry. **(2 marks)**
  - (e) The absolute volume of concrete produced by a 50kg of cement is  $0.1345\text{m}^3$  with entrained air of 2% resulted in the actual volume of  $0.98\text{m}^3$ .  
With the mix proportion of 1:1.5:3, calculate the weight of the cement. **(2 marks)**
- (f) Discuss Glass and Metal in terms of their compositions and properties. **(4 marks)**
- (g) State one practice used for storing and handling plywood. **(1 mark)**

## SUPPLEMENTRY QUESTIONS

1. Name three building materials used in the modern technology and explain each materials.
2. Name three building materials used in the traditional technology and explain each materials.
3. What is the difference between clay blocks and bricks?
4. Name a man-made material that can be used as building materials?
5. Differentiate between Fabric and Foam as materials used in building?
6. Plastic is also one of the building materials. Discuss what is plastic?

