

OUTSTANDING TEACHING, LEARNING AND ASSESSMENT TECHNICAL SKILLS NATIONAL PROGRAMME

Output 3: Construction & Built Environment – Mini Problem – Staircase
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Stairway Design

You have been asked by your line manager to suggest a suitable design for a stairway connecting two floors in a museum (see 3D sketch attached). It is up to you to choose the shape and location of the stairs. Your design, however, should comply with regulations from a relevant design standard. Moreover, the client has asked the stairs are designed using a sustainable building material.

Your solution should illustrate the following aspects:

- 1- Identify a suitable design standard to rely on when designing your stairway.
- 2- Number of stair flights in your design.
- 3- Number of steps in each flight.
- 4- Draw a little sketch illustrating the main dimensions of your design.
- 5- Type of building material (justify your choice – 100 words minimum).
- 6- Calculate the angle of the stairs' pitch. Check whether it falls within the range recommended in the design standard you used.
- 7- Name five H&S measures accounted for in your design.

Design a stairway that connects the two floors shown below

Note: dimensions in mm

