

Design green wood products or components

Overview

This standard involves designing a green wood product or component.

Designing a green wood product or parts of a product will include:

- following a given product specification
- planning and meeting research schedules
- selecting suitable tools, equipment and materials
- adapting methods and techniques
- making prototypes
- identifying a final design specification
- resolving any difficulties
- recording information for costing and stock control

Your work must conform to all relevant legislation and codes of practice when carrying out this work.

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Performance criteria

You must be able to:

1. assess the risks associated with the proposed work
2. select and implement the appropriate working methods, in accordance with the assessed risks
3. select and use the appropriate personal protective equipment (PPE) for the work
4. obtain and confirm an accurate, clear and comprehensive specification from your client for the green wood products or components
5. plan and implement an effective research schedule to meet the required deadlines
6. produce a design to meet the client's specification for the green wood products or components
7. ascertain the practicality and availability of materials, tools and equipment that are suitable and necessary to meet the client's final specification
8. make a prototype sufficient to confirm the client's final specification and to test out the technique for the materials and technical ability required
9. ensure that the client's final specification and the technique is achievable, economical and fit for purpose
10. record clear, sufficient information for accurate costing, stock control and replication of the materials, designs and techniques used
11. identify where design techniques should be adapted so as to meet the client's green wood product or component specification more effectively
12. identify evaluation criteria that are appropriate to the client's specification and to your business
13. apply evaluation criteria to the green wood products or components
14. judge the green wood products or components in a manner consistent with the evaluation criteria
15. where the green wood products or components do not meet the criteria, give sufficient and reliable information on this and propose modifications to meet the evaluation criteria
16. where the green wood products or components do meet the criteria, communicate this effectively to the relevant people, where appropriate
17. record clear and reliable information
18. maintain the health and safety of yourself and others at all times, in accordance with relevant legislation

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Knowledge and understanding

You need to know and understand:

1. how to identify hazards and assess risks
2. the selection, use and care of personal protective equipment (PPE)
3. how to interpret client specifications presented in written, oral, pictorial and physical form
4. the visual and physical characteristics of materials
5. the sources of information on styles, techniques, historical background and contexts
6. the potential constraints of materials, equipment, technology and techniques
7. the different design techniques
8. how to apply aesthetic and ergonomic principles
9. how to assess the economic and practical viability of techniques
10. how to identify and select evaluation criteria
11. how to apply evaluation techniques
12. the indicators that suggest that a proposed adaptation is required
13. the ways of identifying and resolving problems with the requirements of the client's specification
14. the criteria for deciding whether design techniques should be adapted
15. how to communicate effectively all aspects of your proposed design to your client
16. your responsibilities under relevant environmental, health and safety legislation and codes of practice

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