

DES9 Research, test and apply techniques for the design of products - SQA Unit Code H9WE 04

Unit summary

This unit describes the skills and knowledge required to research and apply techniques for design. The nature of the end products may vary greatly. The focus of the unit is on researching and experiment with the design techniques for products including research of materials, and use of appropriate technology

What you must be able to do

- a) Determine the user or client for the proposed product to inform design decisions
- b) Determine the user or client for the proposed product to inform design decisions
- c) Correctly interpret the specifications of the brief
- d) Source and evaluate information pertinent to the brief
- e) Correctly identify the resources required for the design of the product
- f) Produce a preliminary visual representation of the brief
- g) Identify possible approaches to the design and establish criteria for the selection of the final approach
- h) Select appropriate materials, tools and equipment for the testing of approaches and techniques
- i) Test and experiment with a range of technique, technology and materials which might meet the requirements of the brief
- j) Evaluate testing and experimenting processes against selection criteria and select the preferred approach based on the requirements of the brief
- k) Refine and accurately document the design approach
- l) Select and organise materials, tools and equipment for fabrication in accordance with the design approach
- m) Safely make the product, prototype or sample ensuring consistency with the selected approach and the brief
- n) Present the designed product, prototype or model in accordance with the brief specifications

What you must know:

- 1) Work and ideas of other designers
- 2) Formal elements and principles of design
- 3) Techniques materials, tools and equipment and their application to design and manufacture
- 4) Physical properties and capabilities of a range of materials, tools and equipment
- 5) The characteristic of different materials under different treatments and the potential of these characteristics to achieve different effects
- 6) Common formats and features of briefs relating to the design of products
- 7) How and where to find information on new technology
- 8) Copyright, moral rights and intellectual property issues and legislation and their impact on the design industry
- 9) How to interpret a brief and communicate design ideas