



## **Product Design**

Design Assignment Guidance  
for Intermediate 2

*September 2004*



# Product Design

## Design Assignment Guidance for Intermediate 2

For use in National Qualifications Intermediate 2 Courses in and after 2005

First edition: September 2004  
Publication code: BB2412

Published by the Scottish Qualifications Authority  
Hanover House, 24 Douglas Street, Glasgow G2 7NQ, and Ironmills Road, Dalkeith,  
Midlothian EH22 1LE

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# Contents

Introduction	1
Intermediate 2 Product Design Course	1
Design Assignment Task	1
Relationship with Units	2
Conduct of Assessment	2
Structure of the Design Assignment	2
Allocation of Marks	3
Guidance to Candidates	3
 <b>Assessment Criteria and Guidance Notes</b>	
Section 1 — Initial Ideas	4
Section 2 — Development towards a Design Proposal	5
Section 3 — Communication	7

# Introduction

This document details the assessment criteria, marking schedule and assessment conditions for the Intermediate 2 Design Assignment.

This document must be used in conjunction with the *Product Design, Intermediate 2* (first edition, 2004) Arrangements document. Reference should also be made to the *Course Assessment Specification*, the annually published *Conditions and Arrangements* (BA0828) and *Estimates, Absentees and External Assessment Appeals: guidance on evidence requirements* (BA0992/3, April 2004) documents.

## Intermediate 2 Product Design Course

The Intermediate 2 Product Design Course has been designed to provide progression from Standard Grade Craft and Design and to articulate with Higher Product Design. The Course is set in the context of products for the market place which are produced by commercial design and manufacture.

In the Course, candidates look at the design process and the strategic decisions that have to be made, as well as considering the materials that may be used and manufacturing processes undertaken. The knowledge and understanding acquired is consolidated by undertaking practical design activities. The external assessment of the Intermediate 2 Product Design Course consists of:

- ◆ An examination paper testing candidates' knowledge and understanding of the content of the Course. The examination is one and a half hours in duration and is allocated 50 marks out of the total 100 marks available for external assessment.
- ◆ A Design Assignment folio produced in response to a task set annually by SQA. The Design Assignment is allocated 50 marks out of the total 100 marks available for external assessment.

Further information on the specifications, content and context can be obtained in the Intermediate 2 Product Design Course Arrangements document.

## Design Assignment task

The Design Assignment task will be set by SQA. It is conducted internally (ie by the centre), and is externally marked (by SQA). SQA will issue details of the Design Assignment task in January and will require submission of the completed assignments by a specified date in the year of presentation. A different Design Assignment task will be issued each year by SQA.

## Relationship with Units

As the candidate's Design Assignment is a response to a discrete task, it is not possible for Unit work to be used. Similarly the Design Assignment evidence may not be used to overcome Unit assessments.

## Conduct of Assessment

The responsibility for setting annual 'tasks' lies with SQA. Completion of Design Assignments must be carried out under supervised conditions within centres. This must be adhered to for two reasons:

- ◆ candidate work must be authenticated
- ◆ as an external assessment, the integrity of the Design Assignment must be guaranteed

As a component of the external assessment, work produced for the Design Assignment must be produced by candidates working independently. The work must be original material produced by candidates, ie photocopies are not allowed and group work is not permitted. While appropriate advice and guidance may be given by the teacher/lecturer, candidates are solely responsible for producing their own Design Assignment.

No annotations should be made on a Design Assignment by anyone other than the candidate preparing the folio. Design Assignments must remain in centres prior to being sent to SQA for assessment purposes — candidates must not be allowed to remove their Design Assignments from centres prior to assessment. Throughout the production of Design Assignments, candidates must store their work securely within the centre in a manner which ensures that material is not allowed to deteriorate or be damaged in any way.

## Structure of the Design Assignment

**A maximum of eight single-sided sheets of A3 is allowed. Any additional sheets submitted over the eight allowed will not be marked.** The original work (ie, not photocopied or scanned versions) must be submitted.

A separate flyleaf, which must be used to authenticate the candidate's work, will be made available to centres.

## Allocation of Marks

Section	Marks available
1 — Initial Ideas	10 marks
2 — Development towards a Design Proposal	20 marks
3 — Communication	20 marks
<b>Total</b>	<b>50 marks</b>

## Guidance to Candidates

Candidates should be familiar with the assessment criteria and guidance offered for each Section of the Design Assignment. **There is no restriction on copying this document for candidates.**

# Section 1: Initial Ideas

The marks in this section are awarded for the quality, diversity and relevance of ideas.

The table below gives an indication of characteristics that a folio would display in order to achieve marks in particular bandings.

**It must be noted that a folio does not need to display all of the features listed within a banding to achieve marks in that banding.**

For example, a candidate may achieve marks in the top banding (6-10) where they have less than four ideas but have generated a significant range of diverse ideas for features or components.

Level of response	Marks available
<b>A limited range of ideas.</b> <ul style="list-style-type: none"><li>◆ Ideas are few in number or vague or similar to others.</li><li>◆ Ideas demonstrate little creativity.</li><li>◆ Ideas produced have little relevance to the specification.</li> <li>◆ Alternatively one concept may be poorly explored.</li></ul>	0-5
<b>A wide range of ideas.</b> <ul style="list-style-type: none"><li>◆ Typically, around four alternative ideas are produced.</li><li>◆ Ideas have obvious differences between them.</li><li>◆ Ideas demonstrate some creativity.</li><li>◆ Ideas address the specification.</li> <li>◆ Alternatively one concept is explored by producing a range of diverse ideas for features or components.</li></ul>	6-10

# Section 2: Development towards a Design Proposal

The marks in this section are awarded for the development of ideas through the application of design knowledge. The marks are awarded for the relevance and detail of the content of the work. The communication and presentation of the work is assessed in Section 3.

The table below gives an indication of characteristics that a folio would display in order to achieve marks in particular bandings.

**It must be noted that a folio does not need to display all of the features listed within a banding to achieve marks in that banding.**

For example, a candidate may achieve marks in the top banding (16-20) where there is limited overt reference to the specification but it is implicit within the folio that the specification has been considered.

Level of response	Marks available
<p><b>Minimal development of ideas towards a design proposal.</b></p> <ul style="list-style-type: none"> <li>◆ There is evidence of minimal progression from the initial ideas and/or concept(s).</li> <li>◆ There is minimal reference and/or relevance to the specification.</li> <li>◆ There is minimal reference to materials and manufacturing processes for the design proposal.</li> <li>◆ Minimal understanding of design issues is evident.</li> <li>◆ Minimal evaluation of the design proposal is made using irrelevant and/or inappropriate criteria.</li> </ul>	0-5
<p><b>Limited development of ideas towards a design proposal.</b></p> <ul style="list-style-type: none"> <li>◆ There is evidence of limited progression towards a design proposal.</li> <li>◆ There is evidence of some diversity in the exploration of potential solutions.</li> <li>◆ There is some reference to the specification.</li> <li>◆ There is some reference to materials and manufacturing processes for the design proposal.</li> <li>◆ Limited understanding of design issues is evident.</li> <li>◆ Limited evaluation of the design proposal is made.</li> </ul>	6-10

## Section 2: continued

Level of response	Marks available
<p><b>Development of ideas towards a design proposal.</b></p> <ul style="list-style-type: none"> <li>◆ The most promising idea(s) and/or concept(s) are adequately explored and progress towards a design proposal.</li> <li>◆ There is evidence of some diversity in the exploration of potential solutions.</li> <li>◆ There is evidence of reference to the specification throughout.</li> <li>◆ Materials and manufacturing processes suggested for the design proposal are appropriate.</li> <li>◆ Understanding of design issues is evident.</li> <li>◆ The design proposal is evaluated.</li> </ul>	11-15
<p><b>Clear development of ideas towards a design proposal.</b></p> <ul style="list-style-type: none"> <li>◆ The most promising idea(s) and/or concept(s) are clearly explored and evolve into a design proposal.</li> <li>◆ There is clear evidence of diversity in the exploration of aspects of the design proposal.</li> <li>◆ There is meaningful reference to the specification at appropriate points.</li> <li>◆ Materials and manufacturing processes suggested for the design proposal are appropriate and justified.</li> <li>◆ Clear understanding of design issues is evident.</li> <li>◆ The design proposal is evaluated by reference to the specification.</li> </ul>	16-20

## Section 3: Communication

The marks in this section are awarded for the communication throughout the folio. The marks are awarded in three categories:

- a) Communication of ideas and development (10 marks)
- b) Recording and justification of decisions taken (5 marks)
- c) Communication of design proposal (5 marks)

The table on the next pages gives an indication of characteristics that a folio would display in order to achieve marks in particular bandings.

**It must be noted that a folio does not need to display all of the features listed within a banding to achieve marks in that banding.**

For example, a candidate may achieve marks in the top banding for communication of ideas and development (6-10) with very limited evidence of graphics provided there is evidence of high quality modelling.

Level of response	Marks available
<b>Communication of ideas and development</b>	
<p><b>The ideas and development are communicated.</b></p> <ul style="list-style-type: none"> <li>◆ A limited range of graphics and/or models is used.</li> <li>◆ Most of the sketches/models are rough in nature.</li> <li>◆ Some annotations have been used to record candidate's thoughts, justifications and explanations.</li> <li>◆ The communication of the development progressively displays little more detail.</li> <li>◆ Graphics/models include aspects of some of the following: <ul style="list-style-type: none"> <li>— <i>dimensions, materials, textures, finishes, special features.</i></li> </ul> </li> <li>◆ Modelling is used for some of the following: <ul style="list-style-type: none"> <li>— <i>exploring ideas, evaluating ideas, refining ideas</i></li> </ul> </li> <li>◆ Written content is mostly clear.</li> <li>◆ Flow of ideas/thoughts is evident.</li> </ul>	0-5
<p><b>The ideas and development are communicated clearly.</b></p> <ul style="list-style-type: none"> <li>◆ A wide range of graphics and/or models is used appropriately.</li> <li>◆ During the early stages the sketches/models will have been generated quickly and may be rough in nature.</li> <li>◆ Meaningful annotations are used to record candidate's thoughts, justifications and explanations.</li> <li>◆ Through sketches and models, the communication of the development progressively shows more detail.</li> <li>◆ Graphics/models include detail of most of the following: <ul style="list-style-type: none"> <li>— <i>dimensions, materials, textures, finishes, special features</i></li> </ul> </li> <li>◆ Modelling is used effectively to explore, evaluate, refine and/or present ideas.</li> <li>◆ Written content is clear.</li> <li>◆ Flow of ideas/thoughts is clearly evident.</li> </ul>	6-10

## Section 3: continued

Level of response	Marks available
<b>Recording and justification of decisions taken</b>	
<p><b>Within the folio, there will be clear reasons for decisions taken.</b></p> <ul style="list-style-type: none"> <li>◆ Decisions taken will be recorded in the folio.</li> <li>◆ Reasons for the decisions will be communicated.</li> </ul>	0-5
Level of response	Marks available
<b>Communication of design proposal</b>	
<p><b>The design proposal is communicated effectively.</b></p> <p>This may take the form of any of the following:</p> <ul style="list-style-type: none"> <li>◆ A rendered graphic.</li> <li>◆ A model.</li> </ul> <p>(Graphics/models may be manually or computer generated)</p>	0-5