

## Principal Assessor Report 2003

**Assessment Panel:**

**Craft and Design**

**Qualification area**

**Subject(s) and Level(s)  
included in this report**

**Higher Craft and Design**

## Statistical information: update

<b>Number of entries in 2002</b>	2582
<b>Pre appeal</b>	A-C 59.8%
<b>Post appeal</b>	A-C 66%

<b>Number of entries in 2003</b>	2463
<b>Pre appeal</b>	A-C 62.4%
<b>Post appeal</b>	

## General comments re entry numbers

Entries showed a decrease of 119 from last year which could be because centres are recognising candidates who are more suited to Int 2 level; there is also the availability of Practical Craft Skills courses. There are concerns however regarding trends we may see in the future, the current course is still very intensive and this may put some candidates off. This will be an increasingly attractive option if Practical Craft Skills courses are offered at Higher Level. The steps being taken by the NQ review, in the major review of the Higher and Intermediate 2 courses should help alleviate these factors.

## General comments

### Paper 1

The marks gained by candidates in this paper showed a slight decrease from last year. An effort was made to make marks more available by breaking questions down into smaller parts. However as there was still evidence from last year to suggest that aspects of the course had had light treatment by centres it was felt that these areas should be re-examined. Question 4 on aesthetics was in general poorly answered with candidates unable to express themselves and identify aesthetic terms eg shape, colour, harmony, contrast, proportion, golden mean, rule of thirds. In question 11(c) candidates could not describe industrial planning issues such as industrial manufacturing methods, planning diagrams e.g. Gantt Charts, Just in time, Standard components, etc. In general however Paper1 seemed to provide a fair test for candidates with responses to questions following a pattern as would be expected.

### Paper 2

The responses from candidates in the Design Assignment showed an improvement from last year.

### Section 1 Problem Analysis and Specification

This section as usual was generally done well by candidates although some candidates still do not justify the reason for choosing design factors as stated in the DA Assessment Specification.

### Section 2 Generation of Ideas

Again this section in general was well attempted although there was a wide variation in the quality of the graphics. The use of an ideas generation technique was not well done as there is little evidence of these generated ideas appearing throughout this section.

### **Section 3 Development and Synthesis**

This section showed a big improvement from previous years particularly in terms of developing ideas. There was less evidence of the development of ideas being mixed in with design synthesis which should be focussing more on possible construction techniques rather than changing shapes, materials, colours, layouts etc as in the Development stage. Again there was a mixture of standards of graphics in this section, where traditionally examiners are looking for more technical detail and the application of a variety of graphical techniques.

### **Section 4 Modelling**

Some centres missed this out and therefore penalised their candidates by 6 marks. It is important that centres ensure that they use the current years Design Assignment guidelines at all times. Those centres that included modelling generally did well.

### **Section 5 Planning for Manufacture**

Traditionally this section causes the most problems. However if candidates imagine a scenario where a product has to be made commercially and then look at all the issues relating to the manufacture of that product. eg planning, mould making, materials selection, suitable manufacturing methods, outsourcing, standard components, sub-contracting, JIT, parts/materials lists, etc. and then shows an understanding of how these elements interact, they will do well in this section. Some centres are showing improvement in this area.

Question 11c Paper 1 showed candidates generally do not understand these concepts.

### **Section 6 Evaluation**

Generally well done.

## Grade boundaries at C, B and A for each subject area included in the report

Grade	Band	Minimum Mark
A	1	160
A	2	138
B	3	126
B	4	115
C	5	103
C	6	92

### General commentary on passmarks and grade boundaries

- While SQA aims to set examinations and create mark schemes which will allow a competent candidate to score a minimum 50% of the available marks (notional passmark) and a very well-prepared, very competent candidate to score at least 70%, it is almost impossible to get the standard absolutely on target every year, in every subject and level
- Each year we therefore hold a passmark meeting for each subject at each level where we bring together all the information available (statistical and judgmental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the senior management team at SQA
- We adjust the passmark downwards if there is evidence that we have set a slightly more demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- We adjust the passmark upwards if there is evidence that we have set a slightly less demanding exam than usual, allowing the pass rate to be unaffected by this circumstance
- Where the standard appears to be very similar to previous years, we maintain similar grade boundaries
- An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions are different. This is also the case for exams set in centres. And just because SQA has altered a boundary in a particular year in say Higher Chemistry does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related as they do not contain identical questions
- Our main aim is to be fair to candidates across all subjects and all levels and maintain standards across the years, even as syllabuses evolve and change

### Comments on grade boundaries for each subject area

It is the intention to see the pass mark rise towards the standardised 50% 'a priori' without lowering the standard required for the written paper whilst ensuring an appropriate level of difficulty.

## **Comments on candidate performance**

### **General comments**

See below.

### **Areas of external assessment in which candidates performed well**

Candidates as expected performed well in questions where they were asked to describe production processes. Candidates also had a good knowledge of how the introduction of new technology would affect society, manufacturers and the workforce. Question 10 which looked at the product demand curve produced a mixture of responses which is to be expected for a question placed as it was at the end of the paper. Candidates in general had a good understanding of marketing techniques to extend a products life cycle.

### **Areas of external assessment in which candidates had difficulty**

Where candidates were asked to provide an extended response and to provide explanations, discussions or opinions, answers tended to be disappointing. The experts a designer would work with at various stages in the design process and the areas of expertise they were able to bring were badly answered. This was especially disappointing for a lead in question and one candidates would be expected to answer well. Question 4 on aesthetics was answered poorly. Little understanding was shown of how aspects of shape, colour, form, texture, balance, proportion would affect the desirability of a product. As was highlighted in the PA's report last year there is still a problem with the understanding the issues that come together when putting a product into manufacture. This was borne out by the lack of performance in answering question 11 part c.

### **Areas of common misunderstanding**

There was a significant minority of candidates who started answering question 6 based upon the toothbrush holder as was asked but finished off by answering the question based upon a toothbrush. There were also some candidates who answered the question wholly based upon a toothbrush.

## Recommendations

### Feedback to centres

Markers in general commented on the improvement in responses from candidates in the Design Assignment particularly in the Development and Synthesis stage. There are still considerable problems however in the planning for manufacture section of the DA and I would point to my comments in the 'general comments' section for guidance on this. I also add the comments made in last years report to back this up.

'In the area of developing ideas candidates should be choosing two or three of their best ideas based upon an evaluation relating to the specification, changing them in form, texture, colour or materials re-evaluating them after development then synthesising or refining the chosen solution so that it can be manufactured as a commercial product. This means looking again at materials, methods of construction/ assembly, identification of bought parts, sourcing of parts, pricing of bought parts etc. Only then can a final solution be finalised and a working drawing be produced.

If these aspects are properly thought out then a production plan including manufacturing processes, outsourcing/ subcontracting, buying parts and delivery times and cut off dates can be calculated effectively.