



## **General Certificate of Secondary Education**

# **Design and Technology (Graphic Products)**

## **3553**

## **Short Course**

**Coursework**

**3553/C**

# **Report on the Examination**

*2008 examination - June series*

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*Dr Michael Cresswell Director General.*

## **General Comments**

Assessment of design folders was generally more accurate this year, with many centres marking in line with the standards set by the board.

Response from centres was again very mixed, with many centres failing to meet the requirements of the board in one or several ways. Moderation was delayed by the late arrival of Centre Mark Sheets and incomplete documentation. It was however pleasing to see a decrease in matrix reading errors. There has been a welcome increase in the number of centres who include good quality photographs of candidate's outcomes.

Visits to centres were generally well organised this year, with the vast majority of centres providing well-labelled and ordered samples in appropriate accommodation.

Centres are encouraged to discuss project briefs/design situations with their coursework advisers; suitability of the projects can then be verified before candidates embark on the work.

It is important that candidates address the three assessment objectives in their coursework assessment. The candidates' brief must give ample scope to design and manufacture a product or range of outcomes that will address these objectives. The outcomes need to be manufactured predominantly from compliant materials.

Candidates who choose an Architectural model as the final outcome should link the model to the launch of a new corporate identity or promotional activity, thus addressing the three assessment objectives. It is also important that the research focuses upon materials that are needed to create the model.

It is important that 3D outcomes presented by candidates appear in the candidate's design folder. In some cases this has not been the case, with no development or recognition of how the product would be manufactured being included in the design submission. It is important that the candidates' 3D outcomes evolve through the candidates' design work.

## **Design Folders**

### **Research**

Most candidates understood the need to provide concise and relevant research gathered from a range of sources. Some, however, relied too heavily on general material usually gathered from the Internet, which had no direct link to the task. This material was often just printed off with little or no candidate annotation. Both primary and secondary research should be included throughout the folder as and when it is required. However, there are still some centres that are producing excessive amounts of research which is often irrelevant, repetitive and generic in nature.

### **Analysis**

Many submissions in this section were disappointing. Some candidates failed to carry out detailed and relevant analysis of their research. This was not always restricted to the less able. Candidates who choose to include a survey or questionnaire should make them concise, relevant and include results and conclusions. Fewer candidates realised the

advantages that could be gained by careful analysis of the problem, task and research and its assistance in prompting more relevant activity in the design ideas section.

## ***Specification***

The improvements made last year were maintained in this section, where many candidates considered carefully the requirements of their product and provided good detail as to how these could be achieved. A small minority of candidates still focused on the process rather than the product.

## ***Generation of Ideas***

There were generally more design ideas shown this year. The quality, presentation and detail of these ideas was excellent in some cases, but in many instances candidates disappointed in this area. Many ideas were lifted directly from the computer and there was a lack of ownership and originality. Many candidates took existing brand names and based their ideas around these. This was restricting to innovative design. The better candidates presented ideas both in 3D sketch form and ICT generated format. Some candidates went on to develop their ideas using exploded views and card models that were evidenced by photographs; this is something that should be encouraged. However, in many folders, ideas were poorly drawn and presented in 2D.

## ***Development of a solution***

There was again a great variation in the response to this section. The better candidates took their best design idea(s) and then refined and developed them to the final working drawing for their product. In doing this they used a wide range of hand-drawn and computerised skills and images. Some candidates used 3D packages to good effect in the development of their ideas. Many, however, restricted themselves to very limited development and often relied on repetition to fill these pages. Some candidates again relied on 2D presentation and only a minority produced a dimensioned working drawing, which could be made by a third party. There was again a significant deterioration in the use of hand drawn graphical skills.

## ***Planning of making***

More candidates used this as an opportunity to address systems and control and produced a flow chart of their proposed making, building in quality control points and health and safety issues. A number of submissions had a plan as described above and a parallel retrospective diagram, with photographs showing each stage with its quality control, testing and resulting modifications. Some added an industrial planning diagram showing how the commercial manufacture would vary from that undertaken in the centre. This approach hit a number of assessment buttons in two or three relatively simple pages.

Many candidates produced very sketchy or retrospective planning, missing out some important stages. Gantt charts are also being submitted as plans of making. Some candidates submitted no planning at all.

## ***Evaluation, Testing and Modifications***

There are still wide variations in how candidates evaluate their final product. The better candidates included testing and third party opinion as well as modifications and final conclusions. In some folders this was missing and evaluations were limited to a brief summary of the students' own opinion and a few specification points. All evaluations should

test the final product against the initial specification, with detailed conclusions that include all changes and modifications. In many cases this has been over-rewarded, with many of the required criteria not being addressed or without reference being made to the specification.

### ***Use of communication, graphical and ICT skills***

It was good to see a further increase in the use of ICT. Some folders contained high quality presentation work. Evidence of candidate input into ICT submissions was patchy and high marks were often given for effective but low level skills. The quality of candidate sketching and drawing is improving, but some candidates still have much work to do in this area. Centres should remember that the specification requires and rewards a range of graphical skills.

### ***Social issues, industrial practices, systems and control***

This was again one of the weakest sections and was often over-marked by centres. The majority used generic material which was not always relevant and which was often copied straight from books or copied directly from the Internet. Many lower ability candidates ignored this section completely. Candidates who include photocopied sheets or work simply downloaded from the Internet gain little or no credit

The more able candidates identified relevant issues and integrated them into their work. This integration was better than in previous years and many candidates understood the need to show how their product could be produced in an industrial situation.

### ***QWC***

The awarding of these five marks is again a cause for concern. Despite the fact that the criteria for the awarding of these marks is included in the specification, many centres appeared to award scores based on the assumed ability of the candidate, rather than on the evidence presented in the folder. A significant number of candidates lost or gained up to three marks in this section.

### ***Making***

#### ***Correction of working errors & modifications***

Again, only a minority of candidates covered this section explicitly; many centres appeared to assume that this area had been covered by the production of a final outcome. High grades were often awarded without supporting evidence. There was, however, a much better and much wider use of prototyping to check the feasibility of ideas before going into final production.

#### ***Use of appropriate equipment and processes including CAM***

The vast majority of centres used a good range of appropriate materials, equipment and processes to produce an effective outcome. There was a significant increase in the understanding and use of CAM; this enhanced the quality of many submissions. There is, however, a danger that CAD and CAM programmes can inhibit flair and originality when even the most able candidates restrict themselves by using standard nets and images.

## **Production and effectiveness of outcome**

It was pleasing that the vast majority of candidates produced an effective outcome and it was the level of difficulty, variety of skills and processes, complexity of construction and quality of finish which acted as discriminators. Materials were used appropriately, but the choice of materials often restricted the quality of making. Many of the more able candidates chose to make outcomes which for them lacked rigour and challenge, and this limited the grade that could be awarded. Some centres still allowed candidates to design and produce stand-alone architectural models and this limited some of the more able candidates in accessing marks for AO2 (designing and producing quality outcomes in quantity).

Many centres are now including excellent photographs to support the final outcome. As well as indicating materials and processes used, this provides good evidence to the moderator and can enhance a candidate's folder.

### ***Level of accuracy and finish***

There was some general improvement in this area, often due to the use of CAM to produce or enhance outcomes. This improvement extended across the entire mark range, with some significant progress being made at the lower end of the ability scale.

### ***Use of QA and QC***

Many candidates referred to this in general terms in their folder but did not apply it to their own making. This was often over-assessed by centres.

## ***Mark Ranges and Award of Grades***

Please see the following link:

<http://www.aqa.org.uk/over/stat.html>