



General Certificate of Education

Design and Technology: Product Design (3-D Design) 1551

PROD2 Learning Through Designing and
Making (Coursework)

Report on the Examination

2009 examination – June series

Further copies of this Report are available to download from the AQA Website: www.aqa.org.uk

Copyright © **2009** AQA and its licensors. All rights reserved.

COPYRIGHT

AQA retains the copyright on all its publications. However, registered centres for AQA are permitted to copy material from this booklet for their own internal use, with the following important exception: AQA cannot give permission to centres to photocopy any material that is acknowledged to a third party even for internal use within the centre.

Set and published by the Assessment and Qualifications Alliance.

General

This is the first occasion for centre's assessment and AQA moderation of the coursework component for the new Specification. The moderation team are pleased to report that the majority of centres assessed the candidates' work very closely to the AQA standard. However, as may be expected there was an increase in administrative errors related to associated forms and paperwork. Candidate Record Forms (CRF) require both Candidate and Teacher input and this was frequently missing or at a minimum level, providing little to support the assessments awarded.

The nature of coursework, whether a single product or multi-product portfolio submission was generally appropriate but the format in either paper/hard copy or CD electronic form should adhere to the following AQA guidelines:

- Folders can be submitted on paper and the use of plastic "flip file" is welcomed as individual sheets are protected and can be easily collated into a logical sequence.

The inclusion of pieces of resistant materials, MDF, timbers, metals etc. glued to pages is not recommended.

- CDR discs and work in an electronic format is welcomed but the format should be a "simple" PowerPoint presentation. It is not necessary for each candidate's work to be submitted on an individual disc; separate PDF files, video clips and web links are not recommended. Loading of individual discs and highly complex files does not assist the moderation process.
- Candidates who submit work based upon a single project are able to access the full range of marks and often do score very high marks; however, those who have a broader experience through tackling a number of a design briefs benefit from the opportunity to select from more varied work when addressing the assessment criteria. When using this *portfolio* approach, it is important that candidates select the best and most appropriate pieces of work from individual projects when compiling their portfolio. It is not useful to simply submit all work as this usually involves repetition and lack of progression.

Assessment Criterion 1: Investigation and Clarification of Problems (8 Marks)

Candidates' work should be focussed when beginning this first section and they should concentrate more upon primary investigation and practical investigations. Excessive, generic collections of internet downloads and the reproduction of secondary text with little analysis does not usually lead to work which will match the descriptors found in the higher mark bands of this criterion.

The volume of work in this section was frequently out of proportion to the number of marks available. A prime example of the above was candidates submitting photocopied or downloaded ergonomic data rather than carrying out their own investigations with a specific client or target market so that they understand change to what the importance of anthropometrics to provide the dimensions needed within a Specification.

Specifications, which would be the concluding part of this section, often lacked the necessary detail to provide a basis for moving on to the next section and generating ideas.

A good specification will include factors which are measurable or can be actually tested when applied to the final manufacture outcome.

Assessment Criterion 2: Development of Design Proposal (24 Marks)

This is clearly the most important and most complex section and should be treated as such, with candidates devoting sufficient time to both sketching initial ideas and (as this year's more able candidates did) exploring the potential of selected ideas through modelling and prototyping. Where possible, it is advisable to invite the client to share in the consideration of ideas at the development stage.

More able candidates will be hoping to demonstrate their ability to produce imaginative and creative ideas; these can often "springboard" from having a suitable focus or source for inspiration such as an existing design movement or style icon / building etc.

The development section should conclude with a plan for manufacture which will specify details of quality control checks as well as some anticipation of time allocation.

Assessment Criterion 3: Making / Modelling (24 Marks)

Although frequently marked generously, there was evidence seen by moderators of some excellent manufacture and the use of a varied materials ranging from compliant/graphic materials, textiles to standard resistant materials.

The increase of CAM and the application of CNC, laser cutters and rapid prototyping machinery were evident and are to be encouraged providing that this has not inhibited the range of skills and materials used. This can be compensated for readily within modelling and testing of ideas in the development stage. Screen downloads and evidence that the candidate retains both knowledge and responsibility for manufacture and has not simply handed over manufacture to staff, is important.

The application of the QC checks, referred to above and evaluation against specification (see below) are a required element for the award of higher band marks but were seen rarely in this first year.

Assessment Criterion 4: Evaluation and Testing (12 Marks)

Evaluation and testing should be evident at a number of appropriate stages throughout the design development, as well as when the final product/prototype is being tested against the original specification. Evaluations which involve the client and relevant environment with suggestions for further improvement/modifications will often lead to the award of higher marks.

Less able candidates tended to provide evaluations which were quite shallow and more to do with the design folder itself or how they felt about their experience of designing.

Assessment Criterion 5: Communication and Presentation (12 Marks)

The overall look of design folders was generally very good, with ICT allowing for the production of professional presentations. This is especially true when Power Point presentations have been used in electronic submissions.

CAD (especially Pro desktop and Google sketch-up) had been used to very good effect but often at the expense of basic free hand sketching. This was frequently of very poor quality and limited annotation was generally provided which therefore did not provide sufficient detail and explanation of designing and manufacture.

The availability and reduced cost of digital photography has led to some excellent diaries of manufacture, as well as a presentation of the final outcomes.

Mark Ranges and Award of Grades

Please see the following link:

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