

General Certificate of Education Design and Technology: Product Design 3D

PROD4

Report on the Examination

2550
June 2015

Version: 1.0

Further copies of this Report are available from aqa.org.uk

Copyright © 2015 AQA and its licensors. All rights reserved.

AQA retains the copyright on all its publications. However, registered schools/colleges 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 schools/colleges to photocopy any material that is acknowledged to a third party even for internal use within the centre.

General

It is pleasing to report that at A2, we generally see candidates within a centre tackling their own projects rather than ones set by the teacher. In many cases, this resulted in sophisticated, creative work that demonstrates the very best aspects of the subject. Centres are reminded to make use of their coursework advisor to check the suitability of a project before allowing candidates to embark on something that may not generate the required evidence. In some cases, candidates tackled projects of a very technical nature that did not allow them to explore a wide range of ideas. In others, the choice of material area limited the making skills that candidates could demonstrate. Whilst it is acceptable to make a scale model for the making and modelling, centres need to give careful consideration to the range of skills that the candidate will demonstrate in making it. Careful thought also needs to be given to how the model would be tested and evaluated.

Many more centres are using electronic folders, presenting their work as PowerPoint or PDF files. These often include embedded video or audio files to show interviews and testing. Whilst this is a welcome trend, centres are reminded that this should be submitted on disc or pen drive only.

1. Context and Objectives

The best performing candidates have identified a design problem that involves a third party or client. Having a client really helps in setting the scene for the project and can be very useful in evaluating the work as it progresses. Sadly, some candidates seem to make up a fictional client and build a limited 'profile' which only has cursory relevance to the product being developed.

2. Plan of Action and Clarification of Problem

At A2, we generally see more focussed research and the majority of work is from primary sources. However, we are starting to see a small number of candidates padding folders out with unnecessary Gantt charts which have been simply coloured in with little comment, mood boards that are simply cut and stick exercises, and photos of tools, equipment and materials available in the design and technology department. At this level, we expect research work to be wholly relevant and well annotated with analytical comment.

In the candidate record form, there is a space for the candidates to write their research plan. The best examples give specific websites, page references, details of interviewees and testing. However, all too often they are vague and given limited thought.

These are getting better with candidates focussing on how the product would be altered for commercial production and how could it be improved in light of the opinions of others. Showing the finished product in use by the target market really helps to finish off a successful project. Again, the very best candidates will take the outcome to a third party for critical comment. In electronic portfolios, candidates will often embed a video showing the product being tested and record the comments from the client.

3. Development of Design Proposal

Ideas and development is still a mixed picture, with some candidates having pre-conceived ideas and simply including a few drawn, very random ideas. Other candidates produce clear development with evidence of models and prototypes leading to challenging, well communicated, and in some cases, very sophisticated final solutions. The very best candidates make full use of clients or a third party in this section of the folder, evaluation ideas or testing models and mock

ups. Where CAD is used, many candidates are producing photo realistic renderings and putting the designs into digital environments to demonstrate what they will look like. Sadly, in the majority of cases, candidates seem to ignore the need to produce a dimensioned drawing.

4. Manufacture/modelling

Whereas a lot of the practical work at PROD 2 is very teacher/centre led, the better centres tend to give the candidates much more freedom in project choice at PROD 4. The best work is often of a very high quality, beyond what we would require for GCE. Again candidates should ensure that the products that they are tackling will allow them to demonstrate sufficient high level manufacturing skills or alternatively supplement them in the modelling or testing sections.

CAD/CAM is becoming more widely used but centres that use CAM must include evidence of the settings and downloads of the CAD work leading up to the product being produced. Many still do not include this work. 3D printing is being used more and more for final outcomes, many candidates being awarded very high making marks. Without the supporting evidence, centres are finding themselves adjusted, as CAM machines become more affordable this could become a worrying trend.

Centres are reminded that without clear photographic evidence of the making process and the final outcome, a visit by the moderator will be required.

5. Conclusions, Evaluations and Recommendations.

These are getting better with candidates focussing on how would the product could be altered for commercial production and how could it be improved in light of the opinions of others. Showing the finished product in use by the target market really helps to finish of a successful project. Again, the very best candidates will take the outcome to a third party for critical comment. In electronic portfolios, candidates will often embed a video showing the product being tested and record the comments from the client.

6. Communication and Presentation.

Communication at A2 is naturally better than AS. Some work this year has been outstanding with excellent sketching, marker rendering and very professional CAD drawing. Work presented on disc is usually very well organised.

When scanning in or photographing sketched work candidates should ensure that the digital copies are of a suitable quality so as not to disadvantage themselves. Candidates that split up their work into distinct sections focussing on specific criteria scored well.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results Statistics](#) page of the AQA Website.

Converting Marks into UMS marks

Convert raw marks into Uniform Mark Scale (UMS) marks by using the link below.

UMS conversion calculator www.aqa.org.uk/umsconversion