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

PROD4

Report on the Examination

2550

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General

Overall, the quality of work for PROD4 seems to be improving with each series. This year, more candidates seem to making use of CAD to present design concepts and development drawings. This has led to a significant improvement in the presentation of work. The very best responses were seen where candidates tackled individual design problems identified by themselves, leading to more creative and imaginative work than those following themes set by their centre. In addition to the use of CAD, centres seem to be embracing new technologies such as 3D printing. Many candidates have successfully used this to make models or component parts of a final outcome, often giving consideration to commercial manufacture such as injection moulding.

Administration

The majority of centres deal with all aspects of administration promptly and moderators receive work in good order and by the published deadline.
Electronic portfolios are becoming increasingly popular, and as with PROD2, many centres are making use of cloud based storage methods. Again, centres are respectfully reminded that candidate work and record forms need to be readily accessible to moderators. For this reason, PDF or Microsoft Powerpoint files should only be used. If moderators are provided with a web address to access work, centres must ensure that files can be viewed easily without excessive download times.

1. Context and Objectives.

The vast majority of candidates use the CRF and/or sections of their folder to explain the origin of the design problem they are tackling. The best examples include some client information and details of their specific needs. Often candidates describe a specific location where a product will be used, supported with photographs and measurements.

2. Plan of Action and Clarification of Problem

As with PROD2, the majority of candidates focus their investigation work using primary sources. Some of the best work showed investigation of existing products, often through shop or museum visits. Product deconstruction was also a common feature of high marked work. Candidates would use this to investigate materials, components and functional aspects of products that could be adopted in their own work. Candidates made good use of client interviews and observation of users to investigate the exact nature of problems.
Research work is generally more concise at this level and good conclusions are presented. This often leads to specifications that are detailed and include justification.

3. Manufacture/modelling

At A2, candidates tackle a single design and make task. The focus on a single outcome usually leads to significantly better quality work than is usually seen at AS level. The best work demonstrates a much greater level of skill and attention to detail, as well as creativity and imagination in its execution. Again, where candidates are given more freedom to choose what they design and make, outcomes tend to be rich and varied. The type of project chosen by candidates is quite diverse but we have seen some excellent use of hand and commercial processes with the very best work often making use of both. Again, as in PROD2, many candidates are considering how their products might be packaged. The best of these produce flat-

pack nets and assembled cartons complete with bar coding, recycling information, and assembly instructions giving an appearance of almost commercial quality
As with PROD2 the majority of candidates record the making process and final outcome with good quality photos over 2-3 sheets in the folder and a final photo in the CRF.

4. Conclusions, Evaluations and Recommendations.

Where candidates finished their work in good time, they often tested them in their intended location (or simulated). Where this happened, candidates often used a third party to test the product and make their own critical comment. Those candidates accessing the top mark bands went further by seeking 'expert' opinion and then sketching and describing modifications in the light of their findings. Most candidates in the higher mark bands also investigate commercial manufacture of their products, perhaps suggesting required modifications and basic costing. Sadly, we still see much work photographed on a workshop bench with limited comment provided by classmates.

5. Communication and Presentation.

At this level, folders are usually well organised and easy to follow. Many include a contents page and excellent photographs of the making process and final outcome. Candidate Record Forms are often completed in detail. With the maturation of skills, we also tend to see much better sketching with the best responses making use of a variety of communication techniques and materials. At the higher mark bands, we see very few if any SPAG errors. It is pleasing to note, that centres are generally reserving the top mark for communication and presentation for the very best of work.

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