

Moderators' Report/
Principal Moderator Feedback

Summer 2014

Pearson Edexcel GCE in
Design & Technology (6FT01)
Paper 01 Portfolio of Creative Skills

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Unit 6FT01

Portfolio of Creative Skills

General Observations

It is pleasing to report that in the main students continue to make good progress with the portfolio of creative skills and centres are preparing their students well for their GCE Food Technology coursework unit. Centres appeared to have an improved grasp of the requirements of the specification, which led to an overall better performance in the work seen and more accurate assessment of student work by centres. Most centres submitted work in three discrete sections, which were divided into:

- Product Investigation
- Product Design
- Product Manufacture

There was evidence of good application of knowledge and understanding of food science, nutrition, preparation and processing technologies and sustainability throughout the portfolio of creative skills.

Centres have made very effective use of the focussed, purposeful and useful E9 feedback to centres about the moderation process of their students work.

Administration

- Student name and number, plus centre name and number should be on the front cover of the coursework.
- CABs should not be attached to scripts.
- There was an increase in administration errors seen by the moderating teams – incorrect submission of centre marks, no signatures by students or teacher in CABs, no photographic evidence and even the wrong portfolios sent to the moderator.
- The recommended page number limit is 30 pages for the portfolio of creative skills.
- Annotation in the CABs was generally very good and aided the moderation process.
- There were examples of page references in the annotation having little relevance to the numbering on the script. There were some scripts without any page numbers and others had numbered each task separately.
- A4 or A3 coursework page format is fine. It is beneficial to choose and use just one format (A3 or A4) if possible.
- Photographic evidence should be used extensively through the portfolio to record work for assessment in each of the three sections.
- Photographic evidence in the CAB should only be presented for the Product Manufacture Task.
- Electronic coursework submissions are acceptable, but Pearson Edexcel guidance clearly states that this must be through an acceptable file format such as PDF, power point or adobe.

Product Investigation Task

Criterion A - Performance analysis

As in previous years, most students achieved very good levels of success in this criterion, when their work was well structured under the recommended headings listed in the subject specification. Selection of product(s) is fundamental to the success of this task. A range of products were generally chosen within each centre, and this should allow greater depth and breadth of investigation thus developing discussion, interest and learning opportunities within product investigation of commercial products using a diverse range of ingredients and processes, adding relevance and Unit 2 studies. The choice of the second product is important in allowing students to compare and contrast one against the other effectively, and while the majority of students were successful at this, a significant number selected products that were 'too similar', and this limited their opportunities to make effective comments when comparing and contrasting. It is advisable that students try to choose similar products that are focused on different user groups, have different performance and user requirements and are manufactured from different ingredients. Once again, interesting combinations of products included luxury versus value, chilled versus frozen product or an artisan food product compared to a supermarket equivalent, special diet comparisons, and multi cultural styles of commercial products.

Many students chose to tabulate this information and this was highly effective, with a concise evaluative summary of the main findings presented at the end of this section.

Criterion B

The disassembly of the chosen product allowed students an opportunity to understand the component parts and structure of the product. Many students worked out the % contribution of each component and justified its inclusion in the product. Good practise was demonstrated by student's choosing to tabulate information using the headings: ingredients, advantages, disadvantages, alternative ingredients and environmental issues. This allowed students to be focussed on each ingredient, component and/or material, whilst presenting information in a concise format. Responses were often generic when linked to environmental issues. Comments relating to origin and season, were worthy of credit, but other considerations could be towards the source, farming/growing methods and disposal of the specific ingredients/materials used. Generic information cannot be credited with marks, if there is no obvious application to the chosen product investigation. Alternative ingredients were suggested, but often needed more justification when related to the possible inclusion in the product.

Criterion C

Students must identify the method of production for the chosen product, and then state one alternative method of production that could have been used in the manufacture of the product. An evaluation of the selection of

manufacturing processes by applying the advantages and disadvantages of the manufacturing processes used in the product was vastly improved this year, and many students chose to present this as an annotated flow diagram, with images to aid communication. The weakest part of this section remains the environmental impact of the manufacturing processes. However, those centres that explored CO₂ emissions, use of energy to power machinery, water consumption during food preparation, and use of standard components on the production line to reduce production processes and applied them to their chosen product were largely successful in this section.

Section D

Most students were able to list quality checks, but often failed to describe how they related directly to the product under investigation. It is far better to choose and describe two/three quality control checks linked to the chosen product than produce a long list of unrelated quality control checks. Reference to standards was often mentioned, but where standards were considered, there was hardly ever any explanation of how they influenced the manufacture of the chosen product. Many students were able to present named quality assurance systems that were focused on the product, rather than being a generic description within the food industry.

Product Design Task

There continues to be evidence of much innovation, creativity and flair, with high level design and development skills and a range of communication techniques supported with good application of knowledge and understanding relating to food, nutrition and product development. As in past years, the most successful centres embraced design and development work with clear, concise design briefs, and technical, measurable specifications that influenced the choice and design of the practical work. Design intentions and decisions were recorded with clarity and justification, leading onto final products that showed significant differences to the original idea. Good photography aided communication.

Section E

Most students presented an initial brainstorm of ideas that were paper based, which were workable, realistic and fully addressed the design criteria. From this, a good range (4-6) of design ideas with detailed annotation, linking to the understanding and working characteristics of ingredients, components, techniques and processes could be presented. In the best work seen from centres, the modelling at this stage is practical work, which allows the student an opportunity to critically evaluate the product against the design criteria through a review page recording design decisions and development opportunities in meeting the requirements of the brief. Functions of ingredients, costing (where appropriate) and scientific understanding of skills and processes allows students to justify their selection of techniques, and evaluate decisions. A review of the modelled/manufactured initial ideas must be presented as a selection and

rejection process, focusing students on how the products met the design criteria, whilst evaluating the success of the product for the design brief. Content varied enormously, but where students could demonstrate a detailed understanding, it allowed students to make good design and development decisions.

From this, development intentions could be communicated and explored with clarification and refinement for individual components, skills and/or techniques within a food product. Successful development should show how the final design proposal has been moved on from an original idea through the results of practical development, sensory testing and evaluation. It is not acceptable to simply take an initial idea and make superficial or cosmetic changes to it and then present it as a final developed proposal. Students should include as much detailed information on all aspects of their developed design as possible, as this is an opportunity to show knowledge and understanding of food science and nutrition through their design and development activities. Development work must be shown to offer contrast and comparison. For example a development of pastry making would allow the skilful student to trial different types of pastries/fats/flours and/or flavours. This might be presented with photographic evidence of each pastry trial, and annotated comments linked to observations and sensory evaluation. Low level development consisted of a one off development with minor ingredients as single practical tasks. The final product in this instance was rarely different from the original idea presented in the initial ideas. Therefore, it was not possible to award high marks for this section. An effective final design proposal was only possible if developments had been justified with valid conclusions. The final design proposal must be objectively evaluated against the design criteria in order to justify the design decisions taken. There was some good third party testing and feedback evidenced, with an evaluation against the design criteria. Several centres included a detailed manufacturing specification for their final proposal with excellent technical information linked to attributes, tolerances and dimensions.

Section F

Communication techniques focusing on concise annotation to convey ideas, development of work with technical considerations, CAD cross section or exploded drawings, digital photographic evidence, scanned images, costing spreadsheets, excel product profiling were shown and most students achieved significant marks in this section, displaying excellent standards for a wide range of communication techniques. However, it is essential that students choose relevant communication techniques pertinent to their design brief. Nutritional analysis seemed to reappear in this section, often with little relevance to the design brief.

The final design proposal should allow 3rd party manufacture of the intended product, and in the best work seen, this tended to be presented as a manufacturing specification with good quality photographic evidence.

Product Manufacture Task

Virtually all centres chose to do a separate manufacturing task, which resulted in either a range of different practical items being made for this task or a wide range of skills and techniques presented for one complex high level food product. By working on three separate discrete tasks, students could present a **wide range** of skills, techniques for different food products, thus producing an effective portfolio of creative skills. This is the best way forward.

Again, a very small group of centres chose to continue the product design task into the manufacturing task and submitted a number of additional practical items that would be suitable for the combined option, as well as the final design proposal from the product design task. This was acceptable only if a range of **different** skills and techniques were shown within the range of food products. Testing needed to be **different** to the sensory testing conducted in section E, if this mode of delivery was being used.

Where centres only used the final design proposal from the previous task (product design task) for the making section (product manufacture task), they were awarding marks twice. This is unacceptable and students could not access marks beyond the lowest band of marks. Centres are therefore seriously disadvantaging their students if they continue to follow this course of action. There is some suitable exemplar work on the Pearson Edexcel website to aid centres with the delivery of this specification.

Some centres produced some outstanding practical work, demonstrating skill, flair and creativity in their making. In other centres, practical work was simplistic with limited making skills or attention to detail.

Section G

Once again, many students managed to score full marks for this section, which requires an accurate plan with realistic, relevant time scales and deadlines for the scale of production, including relevant links to ensuring a good quality product whilst meeting H&S requirements during the making of the item. Thumbnail pictures were often included as part of the production plan, which were effective, clear and supported making marks.

Section H

The majority of centres were in line with the requirements of this section and set manufacturing tasks that allowed students to experience a range of ingredients, processes and techniques, to show quality, complexity and technicality, planned to develop skills that students could call upon for their Commercial Design work at A2, and some high quality outcomes were seen. Quality finish and demanding high level skills and techniques has continued to see a slight improvement this year, but it is still advisable for centres to consider the choice and selection of components for the practical products to allow students to demonstrate a wide range of skills and processes. An absolute minimum of three components should be demonstrated at AS

level, and hopefully many more for those students wanting to access the top marks.

Many centres had followed advice from training and exemplar material, by selecting food products where students could demonstrate accuracy and precision when working with a variety of ingredients/components/processes and techniques. These students were awarded with high marks where the evidence was apparent in their coursework. Teacher annotation in CABs was generally extremely helpful for moderation purposes, and is very much appreciated by the moderating team.

Section I

Commentary on testing carried out on the completed Product Manufacturing Task exactly reflects statements made last year. An interesting range of tests were evidenced by some centres. This included a range of different sensory tests, storage life tests, transportation testing, viscosity tests, and tolerance testing against a manufacturing specification and nutritional analysis where relevant to the design brief.

Students must describe and justify a range of tests that will be carried out to check the performance or quality of the products. This must not be retrospective. However, responses were disappointing where testing was simplistic or superficial. Many students continue to simply evaluate their work against the design criteria, with subjective comments or a brief summary of work completed for the task. Relevant, measurable points of the design brief/criteria must be objectively referenced, to achieve the top box marks, and this was often presented successfully in a tabulated format to aid review and evaluation.

Grade Boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

<http://www.edexcel.com/iwantto/Pages/grade-boundaries.aspx>

