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# Examiners' Report/ Principal Examiner Feedback

## Summer 2010

GCE

# GCE Design and Technology (A2): Food Technology (6FT04) Paper 01 Commercial Design.

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**Principle Moderator's Report Summer 2010**

**GCE A2 Design & Technology: Commercial Design**

**Food Technology Unit 6FT04**

## General Observations

Most centres have made a promising start to the new specification and there were a range of levels of outcome from very good to weak. It was obvious where centres had been to training or used exemplar material as the work was better organised. In order to reach high attainment levels, students must adopt a commercial design approach to their work, reflecting how a professional might deal with a design proposal and its resolution. A client / user group must be integral within the coursework to allow focus and feedback throughout the coursework. Interesting work was presented on topics such as farm shop or café food products, delicatessen food products, gastro pub, hamper food products, celebration foods for a prom and luxury food products.

## Administration

- Almost all work arrived on time, most CABs and Optems were completed correctly, but there were still several arithmetic errors or incorrect transfers from CAB to Optems.
- Annotation in the CABs varied from excellent to non existent. There were examples of page references in the annotation having little relevance to the numbering on the script, and some scripts without any page numbers.
- Some scripts were submitted unbound, some in paper clip, some loose and others unidentifiable as they were without any name, candidate number or centre number. Work should be bound together with logical page numbering and clearly identified to the candidate and centre.
- CABs should not be attached to scripts.
- Several scripts contained flaps. A number had several pages in one poly-pocket. This is not acceptable and makes moderation very slow.
- Where internal moderation was undertaken in centres with marks altered, it was difficult to decide which mark the final mark was awarded by the centre because a number of marks existed for each assessment criterion.
- Photographic evidence varied enormously. Black and white photographs are unhelpful. Please ensure that the candidates name is clearly labelled within the photograph for authentication.

### Section A: Research and analysis

The choice of design problem should have a real commercial use, where it is useful to a wider range of users beyond an individual. Most candidates introduced the client /user group at this initial stage, and identified how their client would be able to offer critical feedback at various stages during the design process. In this section, the client needs to be used to identify the main issues for study, to allow good analysis and focussed research. Many candidates utilised their client's knowledge and expertise by asking relevant, probing questions that enabled candidates to consider some of the technical implications for analysis and research. For example commercial equipment and facilities, safety, quality, time and temperature controls required for commercial manufacture, stock control and

relevant sustainability issues for the product linked to the proposed use, venue or topic. Research varied enormously. Some candidates continue to produce vast quantities of back ground research or unfocussed questionnaires, reports of visits, menus and lists of existing products. It is essential that research is highly selective ensuring that information gathered is useful and relevant to the client /user groups needs identified and finalised during the analysis. Research does not need to exceed three pages of A3 paper. Existing product research and disassembly were widely used effectively to find out about ingredients, components, processes and techniques relevant to the task. Random, irrelevant, unfocussed research cannot be awarded marks. Sustainability was addressed by many candidates, although for some it was contrived. A summary of the main findings of research is desirable as it allows candidates to analyse their research in order to write a product specification that was relevant, meaningful and measurable.

**Section B: Product specification**

Some very good detailed, technical, measurable specifications were seen where candidates produced a logical list of points using the main headings (form, function, purpose, user requirements, performance requirements, material, ingredients, size, safety and quality, scale of production and cost. These are detailed in the Edexcel teacher guidance and should be used at AS and A2 level) to organise the product specification. The specification must be informed by research findings and written in consultation with the client / user group to ensure that the criteria meet the needs identified earlier. Where candidates had supported each specification point with a justified, relevant statement linked to the research, it was possible to access the top box marks. Where candidates had ensured that their specifications were technical and measurable, testing and evaluating in section F was far more successful.

**Section C: Design and development:**

**Design**

All candidates managed to produce a range of design ideas which varied in quality and technicality amongst the cohort. Alternative design ideas must be presented as realistic, workable and detailed design proposals, which address the needs identified in the specification. Challenge and complexity of food products must be established at this point to support making marks later in section E. The selection of 4-6 of those ideas to model as practical work allowed candidates to demonstrate their understanding of ingredients, components, processes and techniques supported by research information. The annotation of this information varied enormously in depth and understanding. Client feedback, good quality photographic evidence and critical evaluation using the specification points must be included to access the higher marks. All too often irrelevant tick boxes, ingredients lists and methods were presented by weaker candidates who also produced similar, simplistic design proposals and failed to communicate their design thinking.

However, many centres had clearly embraced the creative design approach and their students produced some outstanding design proposals with flair, detail and

technicality, creating food products with a wide range of skilful components, preparation, processing and finishing techniques.

**Review**
Generally this was quite well attempted where candidates presented objective, formative evaluations of each idea, referencing the specification and client feedback to assess the suitability of each design idea for the intended purpose. Design decisions must consider sustainability, sensory testing and client feedback, to allow students to present development intentions. This was best done when presented in chart form enabling comparisons to be made easily. It was good when photographs were included in the review chart.

**Develop**
The most successful candidates choose three good quality developments that could be compared, reviewed and evaluated against the relevant design criteria, by demonstrating their technical knowledge and understanding of ingredients, components, techniques and processes. Development was excellent in many centres which led to an effective final design proposal, which could be evaluated against the product specification in order to justify the design and development decisions taken. When work was set out in a logical coherent manner, with good quality annotation by the candidate, it was possible to award high marks. Good photography aided communication.

However, some candidates offered minor changes and cosmetic development to a design idea which resulted in superficial details and a simplistic final design proposal that was largely very similar to the initial idea presented in the previous section. A few candidates failed to make it clear from the start which product was being developed and why, which was frustrating. Where candidates tried to develop more than one product, this section became muddled and lacked flow. Over marking in this section was evident where candidates had not addressed the assessment criteria.

**Communicate**
Good communication techniques were shown with a range of styles and applications used. Students are increasingly showing annotation to convey design and development work, with good explanation and detailed technical information. Some candidates did not organise page space, and included large expanses of white space, or used far too small font size or downloaded images to represent actual products. This is unacceptable. Most candidates made their design ideas and photographic evidence was used to support marks in this section.

**Section D**
**Planning**
Production plans were generally very good with consideration of realistic time scales, quality control, safety checks and deadlines for the scale of production. Some students included thumbnail pictures as part of the production plan, which were effective and clear. Occasionally timings were not always evidenced, but when included were generally accurate and relevant.

**Section E**

**Use of equipment**
Making varied enormously in terms of quality, technicality and complexity. Where candidates had selected simplistic, unchallenging practical work it was not possible to demonstrate their ability to use a range of equipment, even if this was with skill and accuracy. Health and safety issues and inherent risks pertinent to food handling or production were generally acknowledged through the production plan.

**Quality**
A wide range of different products of varying skill were seen. Teachers tended to mark quite leniently in this section. Some work was presented and photographed very poorly (e.g. filthy baking trays). It was disappointing when the final product lacked the skills that had been trialled, developed and tested in the design and development stages. Quality finish and demanding high level skills and techniques continues to need focus for GCE A2 level.

However, there was some exceptional work which showed flair and imagination with skilful food products that were expertly made and finished with a good eye for detail. Candidates who demonstrated their technical knowledge of techniques, ingredients, components and processes with annotation, clarity and justification with reference to their specification were rewarded with high marks.

**Complexity/Demand**
This varied enormously, ranging from simplistic, unchallenging design and manufacture work to high level advanced skills, worthy of A2 level showing challenge, demand, accuracy and precision in their use and execution within food products.

**Section F**
**Test and evaluate**
An interesting range of tests were evidenced by some centres. However, responses were disappointing where testing was simplistic or superficial. Many centres simply evaluated 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, with third party feedback from the client and/or user group. A description and justification of a range of tests that will be used to check the performance or quality of the products must be included in this section. This might include 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. Candidates must use the information from client feedback, testing and evaluation to make suggestions for possible modifications and future improvements to the product, linked to the quality and/or performance of the product.

Life cycle assessment (LCA) was seldom completed or unrelated to the final design proposal. A flow chart must be evidenced with relevant comments linked to the environmental impact of the product throughout its manufacture. Some centres confused LCA with product life cycle.

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