

Moderators' Report/
Principal Moderator Feedback

Summer 2012

GCSE Design & Technology
Food technology (5FT01)

Paper 01 Creative Design and
Make Activities

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Introduction

This year showed a larger proportion of centres getting to grips with the specification and assessment criteria. The level of work seen this year was very promising showing a range of outcomes from very good to weak. For clarification of the two different options and the titles to select from can be found at

<http://www.edexcel.com/quals/gcse/gcse09/dt/Food/Pages/default.aspx>.

Candidates are required to identify a gap within the food market, employ design skills to produce a design proposal and to make a range of food (a range being more than two) products that match the design proposal. A range of products are required to provide candidates with the opportunity to present a wide range of different skills and techniques. As with all the Design and Technology subjects, centres need to address relevant sustainability issues related to their choice of design brief. Some good examples seen this year include the use fair trade products, air miles of the ingredients, amount of water used during the making of the product and the recycling of any packaging used to transport the ingredients or final product. A high level candidate could focus on the use of fair trade ingredients within their final products coupled with the amount of air/land miles the ingredients have had to travel; this would illustrate awareness of global as well as local issues. A lower candidate may on the other hand state that they 'purchased their ingredients from their local shop so they cut down on the food miles'; which shows no real understanding of what food miles are and their importance to the sustainability process.

Each candidate has to produce a folder of 20 to 25 A3 pages in approximately 40 hours of work; containing work from the research to ideas to the final products and evaluation of a new concept food item. The range of topics/design briefs were interesting and well thought out with candidates presenting a wide range of variations on most of the topic headings; the most popular topics seen were celebration and multicultural foods. Some centres set a common topic allowing high ability students to produce individual outcomes; for example food for a celebration and a multi-cultural themed meal. A good choice was desserts within the celebration theme; this allowed the candidates the opportunity to display a broad range of skills and processes with good scope for design and developments. This choice offers stretch and challenge opportunities to candidates. Selecting a theme with a variety of potential products allowed candidates of all ability to select an appropriate range of products with a varying degree of complexity and demand.

Many centres utilised the separate design and make tasks by allowing candidates their own choice for the design project e.g. cakes for a children's party, a main course for a dinner party or a 'finest' range of desserts for sale in a supermarket. But then giving them the make project specification, for example family main meals or a range of dinner party desserts. This allowed for differentiation between candidates with higher ability candidates able to demonstrate high levels of accuracy and precision when making e.g. their own pastry, piping and finishing skills.

There remain some issues surrounding the ease of moderating folders however; these are far fewer than were seen last year:

- Centres must remember that candidate CMRBs must contain a signature for declaration from the assessor and the candidate. Where this is missing, a delay in the moderation process occurs.

- Witness statements should be used to aid the moderator and justify the awarding of marks. Centres should include enough detail to justify the marks awarded stating the processes used as well as clear justification given.

- Remember that photographs of the final product range must be included in the CMRB as well as in the folders.

- Where an assessor has clearly annotated the CRMBs, it greatly helps the moderation process; clear annotation includes page numbers, teacher observations and general guidance to why they awarded marks.

- The CMRBs are removed from candidate's portfolios during the moderation process. It is time consuming to remove the CMRB from a folder if it is attached, it would be advisable to loosely include the CMRB with the candidates work to aid the moderation process.

- Page referencing on the CMRB is very useful to the moderator to show evidence of how and where candidates have met each of the specification criterion.

The general candidate performance has shown improvement this year and centres should be congratulated on the application of the assessment criteria.

Design Activity

Analysing the Brief

The majority of candidates undertook a wide range of design briefs allowing them to show a good understanding of the design process from the initial analysis to ideas, development and the final solution stages. Many students followed similar paths to undertake the analysis of the brief with an initial mind map of thoughts being shown before a more detailed who, what where, when approach was used. Where candidates just presented a mind map they were not able to access the full range of marks due to lack of clarity. The inclusion of a focussed task analysis under the headings of who, what, where, when helped candidates to fully identify the target group needs for the task adding detailed analysis where appropriate. This technique often helped candidates to identify specific needs associated with the task e.g. who the target market is, what the purpose of the task and final product may be, where will the product be sold etc.

Research

Centres showed a much better understanding of the need for selective research this year with many now producing two detailed pieces of research (mainly product analysis and supermarket surveys) compared to a variety of secondary research which has been evident in previous years. The recommendation is for 2-3 pieces of good research which must include some form of existing product analysis.

There was some excellent in-depth product analysis undertaken by many centres where students were able to fully analyse products through sensory testing, costing, functional properties, quality and sustainability. With this detailed analysis and the findings from the supermarket survey, candidates were able to pull out a range of measurable points covering performance, materials, components, processes, quality and sustainability.

Where some candidates failed to access the higher marks the research lacked detail and analysis was repetitive, limited and sometimes generic. Some centres are still producing excessive research and including mood boards (not analysed) and questionnaires. Questionnaires are a difficult form of primary research as many students fail to ask questions that can lead to a specification.

A discussion and awareness of sustainability is required by candidates wishing to gain the highest marks however, this should be related to existing products and their ingredients. There was still evidence of some generic sustainability issues relating to packaging even when the original brief was for a restaurant based product which did not need packaging. It would be advisable to consider identifying issues of sustainability through existing product research e.g. when undertaking a product analysis or supermarket survey (air miles, organic ingredients, farm shops, and fair trade). This would prove far more useful to candidates in preparation for the specification.

Specification

An improvement in candidate performance in the research section compared to last year has resulted in the development of more technical and measurable specification points. Many centres are now choosing to use the Edexcel recommended headings of form, function, user requirements, performance requirements, materials, scale of production and costs. The inclusion of these headings often appeared to focus candidate's thoughts on the expected outcomes of the eventual proposals.

In order to access the high mark band, candidates must fully justify their specification points from their research whilst also addressing relevant issues of sustainability.

Initial Ideas

This section was on the whole marked correctly and the ideas reflected the chosen design brief. Many candidates decided to trial their ideas (although this is not necessary, it is easier for students to analyse the product and provide development ideas once it has been made).

Candidates should present four to six ideas that include a reason for selecting the idea relating to the research and design specification, a list of ingredients and functions, methods and processes, user group feedback (may be sensory analysis) and final evaluation which should demonstrate some notion of future developments that could be made to the idea. Nutritional analysis is only required if it is relevant to the design brief; nutritional analysis of celebration desserts would not be appropriate. To see full marks awarded we would expect to see a detailed understanding of ingredients with a comprehensive evaluation explaining the overall suitability of the product including possible modifications linked to the design specification.

Review

This was carried out well by many centres with many now choosing to present a separate review page in tabular format. This was a common approach which enables candidates to demonstrate their understanding of the design process through the discussion of products strengths and weaknesses associated with products listed across the top and each specification point shown down the left hand side. By taking this approach candidates could offer constructive feedback showing how/if a specification point had been met and how further developments might enhance the idea. Centres must remember that, in order to access the full marks, clear user group feedback and some issues of sustainability must be addressed. It is helpful to include a review summary which will lead onto the development stage.

Communication

A good range of appropriate techniques were generally used; word processing, internet, photos, diagrams and specialist vocabulary were seen.

Development

There were a range of outcomes shown during the development process ranging from extensive and detailed to no evidence provided. Centres must remember that three products (a range) should be taken forward to be changed/improved in relation to user group and research results; the products need to be developed in relation to their initial brief and should be accompanied by clear evidence of their outcomes. Developments can be physical or paper based activities; paper based activities include costing (value products to fair-trade, e.g. sustainability, nutritional analysis or sustainability development. The minimum requirement is for one development for each of the three products, e.g. lemon to forest fruit meringue, or family size to individual portions.

Where candidates failed to achieve a high level of marks, developments were often superficial and lacking evidence. Some products seen showed minor and cosmetic changes e.g. adding 1/2tsp more of oregano or changing the lamb mince to pork. Simplistic ingredients changes are not moving the product forward. Centres need to look at changing the shape, pastry type, components, layering as well as flavouring. It is perfectly acceptable to make more than one change at a time e.g. a candidate can change the pastry and also add flavourings as well as changing the shape. A product can also develop into a completely new product as long as the candidate can show how this has happened whilst also satisfying the brief.

Candidates would be recommended to clearly plan their developments showing which specification point they are trying to improve and how this will be achieved. Candidates who identified a range of potential developments giving clear reasons often showed a logical developmental process.

Final Design

Final design ideas need to be the three developed products, including a photograph or sketch, including the changes made and why. To justify the higher level of marks it is suggested that more technical details could be provided e.g. dimensions or portion sizes and clear and relevant nutritional information for the individual portion sizes. Some of the submitted pieces of work failed to achieve marks due to the lack of a final design proposal. Some of the best examples of work carried out in this section included a brief manufacturing specification including enough detail for a third party manufacturer to understand all of the design intentions.

This section is either the final section of the 'Design' project or the continuation of the combined option. This means that the candidates are either designing the final item relating to their 'design' brief, e.g. celebration cakes, then being given a new specification by the teacher for the 'Make'

project, e.g. multicultural main meals. Or, if the centre wishes, the candidates continue with the designing process and make the dishes they have designed in the 'design' section of their work.

Make Activity

If a centre is undertaking a separate make activity, please remember that a new specification is required.

Production Plan

Only one plan is now required; it can either be a flow chart, or a tabulated HACCP chart. Where a simple written list of instructions (method) was presented, candidates failed to achieve high marks to the lack of detail demonstrating the application of quality control throughout the production process. The plan should include a sequence of manufacturing tasks in the correct order and reference to quality checks. Other considerations might include time, temperature controls, and relevant hygiene and safety issues relevant to the chosen product and specific skills and process used to manufacture the product. Candidates need to ensure that their quality control checks are specific in detail and not too repetitive, for example 'check the meat is evenly cut' could be 'check the meat is diced. The repetition of simplistic checks e.g. 'check utensils are clean' was one indicator of low level work.

Quality of Manufacture and Quality of Outcome

Quality of Manufacture is the processes used to make the product and the Quality of Outcome is the final appearance and ability to meet the specification. In this section, marks are awarded for the quality and manufacture of component parts of final products, how well they are assembled into a completed and fully functioning range of products and whether the tasks and levels of response are appropriate to Key Stage 4 expectations. We are looking for at least three good quality skills and components for GCSE, these could include roux sauces/range of sauce making skills, homemade pasta/noodles, range of pastry making skills, meringue and jelly using gelatine/arrow root. Some candidates were still producing Key Stage 3 products e.g. pizzas, crumbles, spaghetti bolognese, scones, cupcakes, biscuits, fruit kebabs. If standard components are used, again it is difficult for the students to demonstrate a high level of skill, understanding and process. Candidates can enhance some products with the addition of accompaniments and components e.g. if a student makes a Bolognese and makes their own pasta then this is evidence of a KS4 product; if a student makes a curry then marinating the meat, making their own paste, sauce and naan bread would move it into the KS4 criterion. It should be made clear that we are looking for the level of skill to be high whilst demonstrating the production of fully functional products which contain a variety of components.

As evidence of the quality of manufacture and quality of outcome, clear photographs must be submitted; photographic evidence plus the witness statement are the only proof of manufacturing quality. The witness statement is the essential part of the moderation. The photos must be accompanied by a label with the name and candidate number, allowing for evidence of manufacture. It is essential that images convey details of levels of difficulty and complexity of making, so it is unlikely that a single image will achieve this. A good technique shown by centres was the inclusion of a quality of manufacture page whereby candidates could demonstrate the range of products produced whilst including details of processes, skills and techniques that were used. A series of thumb nail photographs and annotation over a period of time during manufacture is the ideal way of highlighting processes and skills used (a record of decision making) and providing examples of precision and attention to detail that may not be readily noticeable in an image of the finished product. The image of the final products must be attached to the candidates CMRB.

The awarding of marks in both the quality of manufacture and quality of outcome were greatly improved this year. Many more centres now understand that a range of products must be produced which are all suitable for KS4. The witness statements were, as always very helpful when agreeing the awarding of marks along with clear photographic evidence. Please make sure that only photographs of the completed product range are required on the CMRB.

Health and Safety

This section is a teacher observed assessment. There no longer needs to be evidence in the folder and the marks can be evidenced as teacher observation; relevant health and safety issues will be identified in the production plan and photography is a useful way of demonstrating candidate success.

Testing and Evaluation

This refers to the candidate's quality of written communication and the testing and evaluation of one of their final food items. Candidates that used ICT facilities to support them in the presentation of their work, tended to use the English language with more accuracy. Tests and checks relate to the testing of one of the final products against the measurable points of specification. Where the specification was detailed and measurable, it was possible to effectively judge the success of the product using a range of appropriate tests. A range of tests (more than two) could include: costing, portion size, nutritional analysis, sustainability, or a range of sensory tests (ranking, rating and star profile). Candidates should be testing one of their final products on their target market and using the feedback gained from this information to produce their evaluations. These tests and checks can include photos, taste testing, costing and nutritional analysis.

Many of the candidates seen had tested all their products (although only necessary to test one). A suggestion can be made for the candidate to discuss each area of the specification and how the product has met the

points – some candidates produced this as in the review section (table format). Tests then need to be undertaken to demonstrate how the measurable points have been met. For example, costing, weight check, sensory test. Thorough objective evaluations of these tests are required for high marks.

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