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General Certificate of Education (A-level) June 2011

Design and Technology: Food Technology FOOD2 FOOD4

(Specification 1540 & 2540)



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FOOD2

This is now the third year of this specification and the standard of work continues to improve. Centres are addressing the assessment criteria much more closely and this is ensuring that marks awarded are maintained. Work is well presented but there are still a lot of centres who insist on sending work in heavy folders, which adds substantially to the postage costs. Work should be bound or held together by treasury tags.

Communication skills are excellent in many folders and the range of IT skills is impressive; sometimes, though, the content needs a little fine tuning. Tables need to be interpreted and it is important to use appropriate units. Centres that elect to produce a portfolio should be careful not to be repeating the same skill at the expense of not completing the work or rushing the final piece of work. Candidates who had identified a specific consumer had then researched their needs and the more able candidates had also identified that there was a need for a new product by finding support information to illustrate a trend. Through research it is important to identify the occasion when the dish will be served. It is difficult to produce a product which meets a design specification which says the dish could be a main course or a dessert. By researching the needs of a consumer it offers the opportunity to understand the nutritional requirements which support the theory work that is assessed in the Unit 1 examination.

More candidates are including some measurable criteria in their design specification. It is not necessary to include every nutrient researched but it is advisable to include the most important ones for their specific target group. Here is an opportunity to fully understand some of the micro nutrients. If the amount is given per 100g it is still essential to think of the final portion size of the product. Candidates produce a range of ideas but it is imperative that these do fit the needs of the consumer and the occasion for which they are designed. Many candidates have chosen the aspect of obesity as their starting point and shown that the trend for more people to be overweight – yet when they produce their design ideas, the products are high in fat and sugar. Ideas can be sketched or images can be used but it is important to annotate them. Many of these ideas are cooked to investigate their suitability. The report on the findings should prove how successful the idea is against the design specification. Nutritional tables should only be included if some nutritional criteria have been included in the design specification and it is vital to check the amount of energy in the product before reviewing other nutrients. Still too many candidates have unrealistic portion sizes.

More development work considers the design specification as well as considering proportions of ingredients, their functions, methods of production and construction alongside modelling. It is necessary also at this stage to identify the quality controls which can then be included in the final plan for making. Quality controls are the thickness, length, speed and the length of time for running a machine etc.

There should only be one plan for making and this should relate to the final outcome. It is not necessary to include methods for each idea to be cooked and similarly there is nowhere in the assessment criteria which requires a list of equipment. Some centres are still including issues related to industrial practices and again no credit can be given for this information because it is not part of the assessment criteria. Photographic evidence helps the moderation process and many candidates produce a series of photographs showing the production of their final outcome, this also can be used to illustrate the quality controls that have been applied.

On completing the final practical it is necessary to explain how successful the product has been against the design specification. The design specification is the most important document in the design folder because it influences the work during ideas, development and the final outcome.

Check list for teaching coursework:

- Share the assessment criteria with the candidates at the start of the course
- Decide whether to approach the work with one design activity or a portfolio i.e. a series of activities which cover all the assessment criteria, but do not repeat tasks
- Make sure starting points are based on a consumer and apply the appropriate nutrition to their needs, also include a trend to show the need for a product
- Use a range of research techniques to gather information including the type of product to produce e.g. main course, dessert, snack etc., analyse the findings and then write a fully explained design specification with measurable criteria

- Produce a range of relevant ideas, with most of them being cooked to find out how well they meet the specification
- Screen the ideas and select one to develop this should be based on the design specification and showing an understanding of the ingredients, proportions method of production and construction
- Produce a plan for making the final idea, including times, methodology, quality and safety controls. Photographs of the different stages of making can be taken after wards and used to provide a story board of the work and support the teacher assessment of this section of the folder
- The final product should be reviewed to show how well it meets the specification

FOOD4

This is the second year of this unit and hard work and dedication can be seen in the design folders and the achievements of the candidates.

The candidates who had identified a clear context which they understood, by having selected a newspaper article of found some statistical information which proved the need for a new product, gave themselves a head start with their work. From this information they were able to identify both design and manufacturing objectives. Still some centres interpret the objectives as the design process, which does not help the candidates focus their research. The objectives also need to be included in the plan to show that the plan is realistic and that the objectives can be met. Changes to the plan should be recorded even if this is only absence or a change of lesson.

Thank you to those centres who did not include the research: all that is needed is the analysis of research. High level analysis must be perceptive, showing real understanding of the information collected and it is also important that appropriate figures are shown in this information which can then form the measurable criteria in the design specification.

The design specification should be based on the research findings and be specific points not generalisations, it is difficult to meet comments such as it should be healthy. The research findings should have shown what healthy actually means including the daily intake of fat, fibre etc. This information can then be applied to the dish, for a main course dish about a quarter of the daily needs should be included where as a dessert would be approximately 15 – 20%. This is the reason why it is necessary to identify the type of product to be designed. Similarly the candidates who had a clear consumer also found it easier to produce a product that suited their needs. There were still some candidates who were designing a product for a family – this does not allow them to apply their knowledge of nutrition and can add to their expense by having to produce a large product. There is no need to request candidates to produce gourmet food products, it is vital that no candidate feels that they are unable to study the subject because they are going to be required to spend a disproportion amount of money on food products. At the stage of development experimental work with very small quantities of food should be undertaken rather than producing whole products every lesson. Also computer modelling of both the costs and nutrition is an important exercise if it meets the design specification.

Candidates should make clear in their design specification whether the cost it is the cost of ingredients or the selling price. Also the research should have clarified the portion size in relationship to the kilocalorie or kilo joule content. There are still some very large products being produced and this also affects the interpretation of other nutrients. If a product has 1000kiloclories then it will meet protein and calcium contents easily, but these products are leading to the obesity issues and in these cases so frequently the starting point has discussed this problem.

A wide range of ideas are being proposed although some of the ideas do not always meet the design specification, many of these are tested with an analysis of the findings. It is important that the design specification forms the bases for testing along with comments from potential consumers. There is no need to write out the method for making or the list of equipment. A wide range of culinary skills are being demonstrated.

After screening the ideas, one idea is selected for development. There has been some outstanding development work. In these cases the candidates used the design specification to guide the work as well as considering proportion of ingredients, the functions of ingredients, methods of production and construction.

A plan for manufacture should be included; to achieve top level marks the work should be very detailed with times, methodology, specific quality controls and health and safety issues. A third person should be able to use the information and produce an identical product. Many centres have included a picture explanation of the final outcome showing the stages, quality controls some health and safety issues and the final outcome. This really does help the process of moderation.

Industrial issues have been considered; and most candidates are applying this information to their particular product.

To complete the design folder the design process should be evaluated as well as the final product. To achieve top marks both of these must have been reviewed explaining both successes and improvements which could have been considered. The product should be compared to the original design specification and there should be proof of how well each point has been achieved. Finally it is essential to discuss how the product could be extended. There are still some centres who are omitting to include this in the candidates' work.

Check list for teaching:

- Share the assessment criteria with the candidates at the start of the course
- Allow the candidates to identify a starting point and prove that there is a gap in the market for a new product. Statistical information is helpful
- The context should be explained, justified and then design and manufacturing objectives set
- The plan of action should show the time allocation for the work to be completed and the changes to the plan as well as showing where the objectives will be met. There should be evidence of 60 hours work of which approximately 30 hours should be spent on practical activity
- Candidates should collect their research but this should not be placed in the design folder
- Analysis of the research is explaining the key facts many of which will form the basis of the design specification. Analysis is not an explanation of how the information was found but an explanation of the findings including factual information
- The design specification should have measurable criteria consumer, nutrition, specific meal, portion size, cost etc.
- Ideas can be sketches or be images but they must fit the design specification, they should be clearly annotated
- A range of ideas need to be tested against the design specification
- One of the ideas, or a combination of ideas, should be developed to produce one final outcome, which is based on the design specification
- A plan of action for making the final outcome will include times, methodology, quality controls and health and safety issues and is written in advance of producing the final outcome
- The final product should be produced in a format that it is suitable for selling, not in a domestic bowl / dish and then industrial issues need to be applied
- A review of the design process should be considered explaining how the final outcome was achieved and then how well this product meets the design specification
- There should be suggestions of how the product could be extended.

Mark Ranges and Award of Grades

Please see the following link:

http://web.aqa.org.uk/over/stat_grade.php