

Examiners' Report Summer 2007

GCSE

GCSE Design & Technology
Food Technology (1970/3970)

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GCSE Design & Technology: Food Technology

Principal Moderator's Report June 2007

Unit 1970, Paper 01 (Coursework)

General Comments

Most candidates produced well-organised folders that the moderators could easily see the development from identifying a need through to the completion of the final product. In most cases candidates used photographic evidence wisely to demonstrate the products they had made. This again helped the moderators to understand the thought processes of the candidates.

Photographic evidence was generally very good, however not all centres supplied photographs. Where final product photographs have been lost/deleted then it is recommended that the candidate remakes the dish as the marks of the teacher examiner can only be agreed if the evidence is in the folder. The best form of photographic evidence is when centres provide a range of manufacturing photographs as well as views of the final product. Photographic evidence is very useful for various key features 'select and use' and 'work safely.'

Adherence to the 18-20 page guidance continues to improve. Candidates were more selective with the information they included and pages were well presented to ensure good coverage of the paper. Very few centres allowed candidates to overrun by many pages, however, some candidates still produced folders in excess of 60 pages which is neither necessary or needed to gain the highest marks.

Folders are getting more manageable every year and it was pleasing to note that no heavy folders were sent to the moderators. Centres should note that the spiral bound plastic attachments used to hold folders together often crack and break during delivery. The best form of attaching folders together are treasury tags.

Moderators reported that most centres sent the appropriate sample pieces of coursework, ie requested coursework and additional pieces to make up a representative selection from the centre. In some cases the highest and lowest candidates were not sent to the moderator. Some centres also sent a random sample over and above the request from Edexcel which is not necessary.

Some candidates produce final products more suitable to KS3 work than KS4 work and centres are marking the finished products too highly. It must be remembered that this course is an assessment of KS4 capability and as a result KS3 tasks are by their very nature less demanding. Consequently, they do not give full access to some of the assessment criteria. Centres generally overestimate their candidates' performance in criteria 2, 4, 5 and 6. On the other hand some centres underestimate their candidates' performance in some areas, criterion 3 in particular.

Administration

Generally, centres followed Edexcel's administration procedures with few difficulties. Moderators reported that a minority of problems were encountered in the following:

- addition errors in Candidate Mark Record Booklets (CMRBs)
- errors when transferring marks from CMRBs to OPTEMS
- no identification of page numbers in annotation column in CMRBs or on the candidates folder
- candidate numbers not on / incorrect on CMRBs
- no names / centre numbers / candidates numbers on coursework once CMRBs removed
- candidate authentication on CMRBs not signed by teacher examiner and/or candidate

Centres are reminded that they must ensure that all administration procedures are followed correctly.

Criterion 1

Identify needs, use information sources to develop detailed specifications and criteria.

Needs

Many centres gave candidates an Edexcel or school-set task. In these instances it is essential for each candidate to analyse and expand on tasks if set by the centre. High marks cannot be awarded if the task has not been personalised and developed by the candidate. Many candidates did not highlight their target group or they identified such a wide target group that it made access to the highest marks impossible, eg 'my target group is adults'. A given brief with no candidate input cannot be credited any marks.

Information

This key feature was done well by the majority of candidates. In most cases the candidates researched appropriate areas which related to the task they were investigating. In a few cases candidates had analysed products that are currently available in shops but which bore no relationship to their task. Although product analysis is clearly valuable it is of no value if it does not help to inform the candidate for their particular portfolio. Centres had generally not allowed their candidates to spend a disproportional amount of time producing repetitive or excessive amounts of information. Information sought, recorded and used well, included product analysis-shop surveys and product disassembly, questionnaires/market research, and selective background information on possible materials, components, means of construction and processing techniques. The research completed must allow the candidates to produce a detailed design specification for their proposed product, which they can justify from the research they have completed.

Specification

This is an area where candidates often fail to reach the highest marks. Candidates must create the specification points themselves to gain high marks. Centre given and/or generic specification points are classed as teacher intervention and cannot be credited to candidates. Less able candidates may, however, need help to write suitable specification points but this teacher intervention must be acknowledged when awarding a level of achievement.

The specification must include measurable points and should focus on form, function, target market and budgetary constraints. Each point must be justified to gain the highest marks. It is also essential that the specification contains measurable points, which can be used to test the final product in criteria 6. These could include size of portion, calorie content, fat content, reference to tolerance of size when producing products. Some candidates explained how they were going to achieve their specification points but did not give a reason for including them eg the cost of my product will be between x and y because from my questionnaire/shop survey I have found that out.

To gain a high level mark candidates must produce a specification that contains descriptions relating to all of the following requirements of the product. Each description must contain more information than a simple statement and be justified from the evidence of research.

- **form**, eg portion size, type of ingredients, environmental issues, scale of production etc
- **function**, eg type of product and it's purpose
- **user requirements**, eg nutritional contribution, shelf life, means of preservation, reheating etc
- **budgetary (cost) constraints**, eg price range, manufacturing and marketing costs.

Criterion 2

Develop ideas from the specification, check, review and modify as necessary to develop a product.

Ideas

'Ideas' were generally well addressed, although there was a tendency for some candidates not to evidence the link between the proposed ideas and the specification points already identified. Such examples of work could only gain the lowest marks in the low-level band. To gain high level marks candidates need to present a range of realistic initial ideas. These should address form, function, user requirements and budgetary constraints as detailed in the specification.

It is expected that candidates will make several of their initial ideas (model) so they understand the processes involved in the product and are then able to develop aspects of the idea. Although many candidates had made products they did not always relate to the task being carried out. Some centres need to ensure that the range of ideas suggested is diverse in respect of incorporating a variety of ingredients and processes and that the dishes demonstrate KS4 rigour.

Develop

Some excellent work was produced for this key feature. Centres generally guided their candidates carefully and enabled them to access the high level band of marks. Development work followed a logical sequence and led to a final product. Development work with pasta, pastries, sauces, flours, fats all addressed development of nutritional value, flavour, appearance, cost and portion size.

Unfortunately, a number of centres failed to address this criterion at all; candidates merely made an initial idea and presented it as a final product. Several centres gave high marks when there was no practical evidence, just written statements. Clear aims were given to the developments being undertaken with altered recipes and detailed sensory testing with photographs. Other centres were generous in this area as high level marks were given when candidates just developed the taste and texture. Candidates must develop other areas of the specification for example, sensory modelling, costing, appearance, portion size etc. Some candidates tried to take forward more than one idea - this was difficult to undertake in the time allocation and to achieve high grades. Moderation of this criterion was easier when candidates included an introduction to each test on what they were modifying.

It must be remembered that to access the marks in this section, initial ideas must be developed. This means 'changed' or 'moved-on' in light of the evaluation of initial ideas. Marks are only available for new information and not for simply repeating the initial idea, or suggesting and not actually carrying out development ideas.

The final requirement of this section is a final design proposal which has moved on significantly from the initial design ideas and is referenced back to the specification and includes all relevant information, eg ingredients, portion size, an annotated drawing, costing etc. This final design proposal is then referred to in 'make products' where high marks are awarded for the final product matching the design proposal.

Review

'Review' was generally marked accurately by centres. To satisfy the high level of this key feature, 'ideas' need to be reviewed as they develop against the previously identified needs and design specification points. All reasoning must be explained when reducing the range of initial ideas down to a more selective group. To access the higher level mark band thorough testing against other specification points is needed, eg nutritional analysis, calculation of cost, review of time needed for preparation, user views on general acceptability of dishes, shelf life concerns etc. Candidate observation / opinion can be used as evidence and justification, but high marks cannot be awarded solely on the review of this limited evidence.

Care should be taken to guide candidates in their final choice of product to ensure they have the opportunity to demonstrate their competency at KS4. Failure to do so will limit their access to marks.

Criterion 3

Use written and graphical techniques including ICT and CAD where appropriate to generate, develop, model and communicate.

Many centres harshly marked this criterion. Candidates' presentation and communication skills have improved a lot in recent years. Moderators adjusted marks accordingly.

Written Communication

Many candidates communicated information clearly and in a logical and well-organised manner, although the use of specialist vocabulary continues to be used infrequently. An area where candidates can easily incorporate technical language is in describing the function of ingredients used in products, or when detailing the manufacturing processes relating to their product especially in an industrial situation.

Other Media

The differentiation in this key feature lies within the skilfulness and accuracy shown by the candidate when presenting information. Candidates displayed suitable means of recording information, such as photographs, cut and paste items, tables, pie charts, bar charts, flow charts, brainstorming bubbles etc. but to gain the top level mark it is important the candidate aims to clearly and accurately communicate necessary information.

ICT

Some excellent ICT was seen from many centres. Less able candidates seem to produce more creditworthy work when they word process it and/or when they use ICT graphics to present results. The use of nutritional analysis computer programs produced valuable information as well as helping to address this particular key feature. The use of digital images of modelled food products was fairly common this year and the quality of such images has improved considerably.

Criterion 4

Produce and use detailed working schedules, which include a range of industrial applications as well as the concepts of systems and control. Simulate production and assembly lines using appropriate ICT.

Marks allocated in criteria 4, 5 and 6 refer to work directly related to **making the final finished product only** and not previous trial ideas and development work.

Systems and Control

This is still an area of confusion for many centres. To gain the highest marks candidates must demonstrate an understanding of input, process, output and feedback within a systems diagram. This information must be displayed in the form of a flow chart with each of these areas clearly labelled or identified through a 'key'. Within the feedback loop, quality control points can be indicated as well as solutions to problems that have been encountered. The diagram must be fully related to the production of the candidate's own product. Generic diagrams looking at industrial production are not required.

Schedule

These can be presented in the form of a chart or flow diagram but they should relate fully to the making of the final product and include all relevant information for successfully making the product. The schedule is the planning of practical work not a diary of 'what I did'. The schedule must refer to time in order to access both the medium and higher marks. To gain the high level marks candidates need to produce a time plan relating to production / manufacture of the product that includes consideration of some of the making processes, materials (functions of) and time projections, and of where / when quality control will be applied. Where Gantt charts are used they should again only refer to the making of the final product (not the entire project) and they must indicate the time related to each block of work.

Industrial Applications

Clear evidence was provided in the majority of folders. Some centres still include a generic HACCP and so marks cannot be awarded. Centres are reminded that a detailed HACCP alone can qualify for three marks. Some centres include lots of information on packaging and net diagrams, which must take considerable time for the candidate to produce and is more relevant to Graphic Products as well as information on how the final product would be produced in industry through high volume production.

Criterion 5

Select and use tools, equipment and processes effectively and safely to make single products and products in quantity. Use CAM appropriately.

This criterion has the highest weighting of marks and it is important that the necessary quantity and quality of evidence to support the marks awarded is provided in the folio. The marks in this criterion are only awarded from the production of the final product. There are no marks awarded for the production of previous initial ideas or development of ideas.

Select and Use

Many candidates produced good evidence of 'select and use' To score high marks, candidates are required to provide explicit evidence of their ability to 'select' and 'use skilfully' tools, equipment and processes whilst manufacturing their product. Products must be appropriate to meet the demands of KS4 to access the medium to higher mark levels. Candidates producing only KS3 products often had their marks adjusted. There were many examples this year of candidates gaining 15 or 18 marks for work that were only at best KS3 skill level - these included pizzas, simple biscuits, fairy cakes, fruit salads, fruit kebabs (uncooked), chilli, spaghetti bolognese etc. Standard components should not be used eg flaky pastry, pizza base. Candidates who produce items such as a Victoria sandwich and then roll bought icing have not demonstrated high skills

Evidence for 'select and use' is best presented using photographs. Evidence for 'use skilfully' was presented by many candidates in the form of high quality photographs, which showed evidence of skill and accuracy. A few centres provided detailed teacher annotations.

Some centres produced tables indicating equipment and methods chosen for use, together with the reason for choice and then any particular safety points that needed consideration, ready for addressing the third key feature in this criterion.

Make Products

This area was over assessed in many centres with teacher examiners clearly awarding marks that should have been awarded in 'select and use'.

The marks in this criteria are awarded by looking at the final product and looking back at the final design proposal - if the two match fully and are of KS4 skill level they higher marks can be awarded. Where a candidate fails to have a final design proposal the higher marks cannot be accessed. The assessment criteria state that candidates must 'make a high quality product which relates fully to the features of the design proposal' to achieve the highest band of marks.

Work Safely

Safety relates to physical safety and well being of the candidate and those around them not the bacterial / food poisoning safety aspects. Some centres continue to over mark this key feature. To access the high level marks candidates must detail most of the safety precautions, which relate to both themselves and others with respect to specific materials, tools, equipment or processes to be used when making their product. Only a low mark can be awarded for teacher observation alone and if this is to be credited the CMRB must be annotated with sufficient detail by the teacher.

Criterion 6

Devise and apply tests to check the quality of candidate's work at critical control points. Ensure that candidate's products are of suitable quality for the intended use. Suggest modifications that would improve candidate's performance.

All three key features in this criterion relate to work associated with the completed final product only. To access the high level marks candidates need to develop and use appropriate testing techniques to check the product against all aspects of the specification. (The importance of a detailed design proposal / product specification evolving from the criterion 2 cannot be emphasised too strongly.) Areas for testing can include sizes, tolerances, fat content, calorie intake for a portion / the whole item. User views (the target market) are an important factor when tests and checks are undertaken. The views of these users are the basis for the evaluation of the final product and must be sought. The product is of no value if it fails to meet the specification laid down for the target market. Some centres once again allocated marks for 'testing and checking' that had been undertaken at the 'ideas' and 'development' stages rather than at the completion of the design process at the end of the portfolio. Marks can only be awarded for testing and checking of the final product. Testing and checking recorded earlier in the portfolio will have been marked already and cannot be credited again. Centres must ensure they do not double credit work.

Evaluate

Evaluations were generally well marked although many candidates continued to evaluate the whole project which is not required. As with tests and checks some

centres had mistakenly credited marks for evaluative comments made in 'ideas', 'develop' and 'review' sections in criterion 2. The assessment criterion states that candidates must evaluate the final product using evidence from the test results and considering user views. The evaluations are written from the evidence gained in tests and checks and the views of the intended users. Subjective statements made by the candidate, which are not backed up with evidence, can only be awarded a low mark. Evaluations must relate to measurable points of the specification, be objective and should be supported with evidence from tests and checks.

Modification

Modifications are related to the changes that could be made to the final product from the evidence gained in the tests and checks and the views gained from the intended user. The candidate is not required to comment on how they would organise their time while completing the whole project. This key feature demands that candidates use the results from evaluating the final product to suggest and justify modifications to the product. To access the high level marks candidates need to present more than one modification, each arising from a different evaluation point.

GCSE Design & Technology: Food Technology

Principal Examiner's Report June 2007

Unit 1970, Paper 2F

General Comments

Candidates generally responded well to the paper this year with very few failing to attempt the questions.

It is encouraging to see that most were entered for the correct tier of entry and few candidates. The design question was generally well received and the standard of sketches and labelling continues to improve. As always, candidates struggled to answer technical questions and to make the connection between their practical food work and the exam paper. Many candidates lost marks because they find it difficult to fully describe or explain answers. Centres can help their candidates by spending more time with them practicing this aspect of exam technique.

Question 1

This question was well answered by the majority of candidates. Most candidates were able to correctly identify the use of the equipment or tool shown. The pieces of equipment that caused the most difficulty were the lemon squeezer and pastry brush, often incorrectly named although the use was correctly identified. The roller cutter was often muddled with a conveyor belt. Most candidates could give at least two uses of a food processor to prepare foods. Safety rules were often muddled but at least one rule was given correctly. Responses to the question on batch production of biscuits and high volume production of bread were often answered generically eg 'quicker' / 'faster' / 'cheaper'. Few candidates were able to link their answers to the specific products. Many just gave advantages of these scales of production. Most candidates could give at least one stage when CAM systems are used in bread production, with weighing of ingredients or controlling temperatures being the most popular responses.

Question 2

Surprisingly, many candidates struggled to name two different types of flour, even though they would almost certainly used a range in their practical work for the coursework component, or during their course. Nutritional knowledge of flour was weak. Most candidates related it to carbohydrates and their provision of energy. Fibre was another popular answer, but descriptions of its use were weak. The majority of candidates could not describe the thickening process of flour though a few were able to describe the swelling of the flour grains. Many candidates could not name three natural ways to enhance the flavour in the sauce; the most popular responses included salt, pepper and herbs. Some were only able to suggest adding more cheese. Few could name a strong cheese when this was given. Very few candidates could explain why adding ingredients would raise the price of the finished product. Where candidates did score marks they understood that energy costs increase with extra ingredients and that extra processes increase labour costs. There were few detailed answers to the way in which the cheese sauce could be made suitable for vegetarians. Many were simplistic, only commenting that it should not include any meat. Some candidates were able to describe the way in which vegetarian cheese differs to a normal cheese and a few described substituting cows

milk with a soya milk. In contrast, most candidates knew and were able to give two or three advantages of using paper packaging, although metal packaging was less well understood. Better candidates could describe the slower process of degradation. Few thought about it being a non-renewable resource or the high-energy costs of processing it.

Question 3

Candidates enjoyed this design question. Symbolism for a sport event was imaginative and well linked to the question. The standard of drawings improved again this year and few candidates failed to think of two design ideas. Often candidates go through the specification point by point, many numbering the labels to make sure they address all the points in the specification. Candidates fail when they do not have the technical knowledge to name specific icings, edible decorations or see which ingredients could be 'filling' or contribute to texture. Often design ideas are repeated, despite clear instructions to indicate that they should be two different designs. Candidates often fail to gain marks in the evaluation section by not giving clear reasons for their design choices and simply repeating what they have shown in the labels. There were, however, some good negative evaluations from candidates.

Question 4

As always, candidates struggled to write good answers for the specification points. The best answers came from candidates who wrote in short sentences. Single word answers are often open to interpretation and do not always guide the examiner well enough to credit them. Weaker candidates also failed to link the point and reason, or muddled them. 'Market' was often interpreted as being related to cost with few candidates thinking of other reasons. Some were able to identify the fact it was a vegetarian pasty and linked points to the need to have no meat or that it would then broaden the market appeal. Points relating to 'environment' were much better. The most popular answers picked up on recycling issues but some candidates linked it well to GM or organic issues. This was the best-answered specification point. 'Quality' was poorly addressed and many answers were generic. 'Quality' points should be measurable, eg well-shaped, golden colour etc. Most candidates were able to give at least one good reason for using a sauce in the filling. Almost all candidates explained the use of a CAM machine very well. Few candidates could describe two properties of pastry; either the properties were named but not justified, or only one property could be given and described. The use of green packaging was accurately explained by some though others muddled its use with environmental issues. Although 'crimping' was accurately identified few candidates could give full explanations. Where links were made to the lack of meat/high-risk foods in the pasty candidates scored well but very few candidates gained high marks in this sub-section. There were better explanations of how the design or pastry element made the product easy to hold in one hand. Most candidates scored high marks in the final sub-section.

GCSE Design & Technology: Food Technology

Principal Examiner's Report June 2007

Unit 1970, Paper 2H

General Comments

Response to this paper was very positive with the more able candidates showing a wide range of knowledge and the ability to use the correct technical language. The design question was very well received and candidates produced a range of very interesting and well drawn designs. Candidates work showed the most weakness with the final question on the paper, which concentrated on technical knowledge from AO1 of the specification. Centres are advised to spend more time on the taught element of the course with their candidates.

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Question 2

Many candidates muddled this question with a more generic one asking for advantages of using a food processor. Some candidates gave single word responses, such as 'mix' 'chop' 'grate', which is insufficient on a higher tier paper. Many candidates could give two good considerations for purchasing a food processor for a business. Good answers, often scoring full marks, were given for the advantages of using a pre-blended spice. Spreadsheets were widely understood with the most common answer being 'to calculate costs'. Few candidates mentioned scaling of recipes and nutritional analysis was often poorly explained. Better candidates showed how it could be used to calculate specific nutrients or prepare labels and justify nutritional claims. Explanations for varying the scale of production for pizza

bases and chilled pizzas were disappointing; a large number of candidates gave very generic answers, though better candidates understood that the pizza bases could be used as a standard component part. Scales of production for chilled pizzas was not answered as well. Often candidates gave one or two good answers for the use of ICT in stock control, with the most popular answers centred on shelf life and tracking stock. A few linked it to EPOS tills, but rarely were there three correct answers. Weight controls were correctly identified but not always clearly explained.

Question 3

This question provided candidates with the opportunity to respond to an often unfamiliar design situation with flair and imagination. Candidates benefited from planning the answers with rough notes. Labelling was more concise with the use of numbers and letters to cross reference to the design specification. As both designs were on the same page there was also less repetition of design ideas. Most candidates struggled to name two different pastry types. The most common ways of extending shelf life were through chilling and freezing, although some candidates mentioned the use of preservatives and emulsifiers. Evaluations are becoming more detailed with few candidates just repeating the labels. However, candidates need to justify both points in the specification. Some good negative evaluations were given.

Question 4

This question caused the most difficulty for candidates. Nutritional knowledge of vitamin C was very weak, and the majority of candidates gave generic answers eg 'improving health'. Even fewer candidates were able to explain the increased need for vitamin C in the diet. The most common wrong answer was that it is needed for lots of functions. Understanding of preservation methods was also poor and the question about the freezing and irradiation of strawberries was often wrong. Some candidates knew that frozen strawberries increased in size but could not explain it further. Very few candidates know that irradiation could destroy bacteria, although some knew it could extend shelf life. Knowledge of the function of gelatine and pectin was minimal. Many candidates left this answer blank while others just picked up on key words in the question and repeated them. In contrast many candidates could give clear explanations of the ways in which the needs of vegetarians could be met when manufacturing a chilled dessert. The most common answer linked the source of gelatine to the beliefs of vegetarians. Understanding of the moral issues surrounding the use of chemical additives was good with most candidates scoring two marks, though some misread the question and wrote about advantages, not disadvantages. Answers to the questions on packaging were sound. Recycling is clearly understood and answers were clear and precise. Most candidates could give one clear and well-explained answer to the way in which packaging helps to educate the consumer, with a focus on nutritional labelling and ingredients being the most favoured answers. Some candidates also explained how instructions for cooking and storage help educate the consumer. Overall the standard of answers for this part of the question was high.

**GCSE Design & Technology: Food Technology
Principal Moderator's Report June 2007
Unit 3970, Paper 01 (Coursework)**

This will be included later

**The complete final version will be uploaded on the Edexcel
Website.**

GCSE Design & Technology: Food Technology

Principal Examiner's Report June 2007

Unit 3970, Paper 2F

General Comments

Many of the comments relating to the Full Course hold true for the Short Course. Most centres are now entering candidates for the correct tier of entry, which means they are not disadvantaging the candidates, who would perform better on the foundation tier. As with the Full Course centres need to spend time on exam technique, raising awareness of how to tackle questions that ask for descriptions or explanations so that their candidates score full marks more often. It would seem that many centres fail to teach their candidates the contents of the specification, relying on knowledge gained from undertaking the coursework. This seriously disadvantages them in the written paper where they are often left exposed by a lack of technical knowledge.

Question 1

This question was well answered by the majority of candidates. Most candidates were able to correctly identify the use of the equipment or tool shown. The pieces of equipment that caused the most difficulty were the lemon squeezer and pastry brush, often incorrectly named although the use was correctly identified. The roller cutter was often muddled with a conveyor belt. Most candidates could give at least two uses of a food processor to prepare foods. Safety rules were often muddled but at least one rule was given correctly.

Question 2

Surprisingly, many candidates struggled to name two different types of flour, even though they would almost certainly use a range in their practical work for the coursework component, or during their course. Nutritional knowledge of flour was weak. Most candidates related it to carbohydrates and their provision of energy. Fibre was another popular answer, but descriptions of its use were weak. The majority of candidates could not describe the thickening process of flour though a few were able to describe the swelling of the flour grains. Many candidates could not name three natural ways to enhance the flavour in the sauce; the most popular responses included salt, pepper and herbs. Some were only able to suggest adding more cheese. Few could name a strong cheese when this was given. Very few candidates could explain why adding ingredients would raise the price of the finished product. Where candidates did score marks they understood that energy costs increase with extra ingredients and that extra processes increase labour costs.

Question 3

As always, candidates struggled to write good answers for the specification points. The best answers came from candidates who wrote in short sentences. Single word answers are often open to interpretation and do not always guide the examiner well enough to credit them. Weaker candidates also failed to link the point and reason, or muddled them. 'Market' was often interpreted as being related to cost with few candidates thinking of other reasons. Some were able to identify the fact it was a vegetarian pasty and linked points to the need to have no meat or that it would then

broaden the market appeal. Points relating to 'environment' were much better. The most popular answers picked up on recycling issues but some candidates linked it well to GM or organic issues. This was the best-answered specification point. 'Quality' was poorly addressed and many answers were generic. 'Quality' points should be measurable, eg well-shaped, golden colour etc. Most candidates were able to give at least one good reason for using a sauce in the filling. Almost all candidates explained the use of a CAM machine very well. Few candidates could describe two properties of pastry; either the properties were named but not justified, or only one property could be given and described. The use of green packaging was accurately explained by some though others muddled its use with environmental issues. Although 'crimping' was accurately identified few candidates could give full explanations. Where links were made to the lack of meat/high-risk foods in the pastry candidates scored well but very few candidates gained high marks in this sub-section. There were better explanations of how the design or pastry element made the product easy to hold in one hand. Most candidates scored high marks in the final sub-section.

GCSE Design & Technology: Food Technology

Principal Examiner's Report June 2007

Unit 3970, Paper 2H

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As always, candidates struggled to write good answers for the specification points. The best answers came from candidates who wrote in short sentences. Single word answers are often open to interpretation and do not always guide the examiner well enough to credit them. Weaker candidates also failed to link the point and reason, or muddled them. 'Market' was often interpreted as being related to cost with few candidates thinking of other reasons. Some were able to identify the fact it was a vegetarian pasty and linked points to the need to have no meat or that it would then broaden the market appeal. Points relating to 'environment' were much better. The most popular answers picked up on recycling issues but some candidates linked it well to GM or organic issues. This was the best-answered specification point. 'Quality' was poorly addressed and many answers were generic. 'Quality' points should be measurable, eg well-shaped, golden colour etc. Most candidates were able to give at least one good reason for using a sauce in the filling. Almost all candidates explained the use of a CAM machine very well. Few candidates could describe two properties of pastry; either the properties were named but not justified, or only one property could be given and described. The use of green packaging was accurately explained by some though others muddled its use with environmental issues. Although 'crimping' was accurately identified few candidates could give full explanations. Where links were made to the lack of meat/high-risk foods in the pasty candidates scored well but very few candidates gained high marks in this sub-section. There were better explanations of how the design or pastry element made the product easy to hold in one hand. Most candidates scored high marks in the final sub-section.

Question 2

Many candidates muddled this question with a more generic one asking for advantages of using a food processor. Some candidates gave single word responses, such as 'mix' 'chop' 'grate', which is insufficient on a higher tier paper. Many candidates could give two good considerations for purchasing a food processor for a business. Good answers, often scoring full marks, were given for the advantages of using a pre-blended spice. Spreadsheets were widely understood with the most

common answer being 'to calculate costs'. Few candidates mentioned scaling of recipes and nutritional analysis was often poorly explained. Better candidates showed how it could be used to calculate specific nutrients or prepare labels and justify nutritional claims.

Question 3

This question caused the most difficulty for candidates. Nutritional knowledge of vitamin C was very weak, and the majority of candidates gave generic answers eg 'improving health'. Even fewer candidates were able to explain the increased need for vitamin C in the diet. The most common wrong answer was that it is needed for lots of functions. Understanding of preservation methods was also poor and the question about the freezing and irradiation of strawberries was often wrong. Some candidates knew that frozen strawberries increased in size but could not explain it further. Very few candidates know that irradiation could destroy bacteria, although some knew it could extend shelf life. Knowledge of the function of gelatine and pectin was minimal. Many candidates left this answer blank while others just picked up on key words in the question and repeated them. In contrast many candidates could give clear explanations of the ways in which the needs of vegetarians could be met when manufacturing a chilled dessert. The most common answer linked the source of gelatine to the beliefs of vegetarians.

GCSE Design & Technology: Food Technology
(Full Course: 1970)

Grade Boundaries - Summer 2007

Overall Grades

The figures given below are the minimum subject marks required for each overall grade in the summer 2007 examinations.

(Foundation Tier out of 100)

C	D	E	F	G
51	42	33	24	15

(Higher Tier out of 100)

A*	A	B	C	D	E
79	69	59	50	39	33

Component Marks

The figures given below are the minimum marks required for each component grade in the summer 2007 examination.

(Coursework 01 out of 102)

A*	A	B	C	D	E	F	G
92	80	68	56	45	34	23	18

(Paper 2F out of 88)

C	D	E	F	G
43	36	29	22	15

(Paper 2H out of 88)

A*	A	B	C	D	E
58	51	44	37	28	23

**GCSE Design & Technology: Food Technology
(Short Course: 3970)**

Grade Boundaries - Summer 2007

Overall Grades

The figures given below are the minimum subject marks required for each overall grade in the summer 2007 examinations.

(Foundation Tier out of 100)

C	D	E	F	G
51	41	31	22	13

(Higher Tier out of 100)

A*	A	B	C	D	E
78	68	58	48	37	31

Component Marks

The figures given below are the minimum marks required for each component grade in the summer 2007 examination.

(Coursework 01 out of 84)

A*	A	B	C	D	E	F
76	66	56	46	37	28	19

(Paper 2F out of 44)

C	D	E	F	G
20	16	12	9	6

(Paper 2H out of 44)

A*	A	B	C	D	E
26	23	20	17	12	9

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