

Design and Technology: Food Technology

General Certificate of Secondary Education **J302**

General Certificate of Secondary Education (Short Course) **J042**

OCR Report to Centres

January 2012

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of candidates of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, OCR Nationals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

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This report on the examination provides information on the performance of candidates which it is hoped will be useful to teachers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding of the specification content, of the operation of the scheme of assessment and of the application of assessment criteria.

Reports should be read in conjunction with the published question papers and mark schemes for the examination.

OCR will not enter into any discussion or correspondence in connection with this report.

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CONTENTS

General Certificate of Secondary Education

Design and Technology: Food Technology (J302)

General Certificate of Secondary Education (Short Course)

Design and Technology: Food Technology (J042)

OCR REPORT TO CENTRES

Content	Page
Overview	1
A521 Introduction to designing and making	5
A522 Sustainable design	10
A523 Making quality products	14
A524 Technical aspects of designing and making	17

Overview

This report provides an overview of the work seen in the written examination Units 2 and 4 and the Controlled Assessment Units 1 and 3, for candidates who took the examination during this series. It precedes a more detailed report to centres from each subject area within the Innovator Suite and highlights general issues that have occurred across the suite of specifications.

This report has been prepared by the Chief Examiner, Assistant Chief Examiners, Principal Examiners and Principal Moderators and covers all specifications within the Innovator Suite. It should be read in conjunction with the examination papers, the mark schemes, and the marking criteria for assessment given in the specification booklets.

This is the first examination series in the third year for the new Innovator Suite.

A reminder: An important point for teachers to note about the Terminal Rule in relation to this suite of specifications and re-sits: The terminal rule is an Ofqual requirement. Candidates must be entered for at least two units out of the four (full course) at the time that they certificate. ie the end of the course.

Please be aware that the Ofqual rule states that marks scored for terminal units will be the marks used in the calculation of candidate grades. Therefore, if one of the candidate's terminal units is a re-sit and the mark is poorer than the original mark, the poorer mark will be used to calculate the final grade for that candidate.

Obviously, the terminal unit marks are then added to the highest marks scored in the other units making up the certificate.

Centres are reminded that it is also a requirement of Ofqual that candidates are now credited for their accurate use of spelling, punctuation and grammar across all four units.

It is pleasing to see that centres and candidates have continued to respond well to the new style of examination approach. Centres are to be commended for this.

It is obvious that Centres have benefitted from previous reports and training sessions available for the qualifications.

Written Examination – Units 2 and 4

Unit 2 – For this examination series of the GCSE Innovator suite entries were seen from all six subject specialisms:

The overall performance and range of results for Unit 2 was better than the last examination session – June 2011. It was pleasing to see that many candidates had been well prepared for the examination by Centres and clearly had a sufficient knowledge base to answer the questions. It has been encouraging to see that candidates have been able to access the higher marks.

Many of the candidates demonstrated a general awareness of the main points and issues linked to sustainable design and the 6Rs.

In **Unit 2 - Section A** of the papers most candidates across the suite attempted to answer all questions, with few candidates giving no response (NR) answers.

It was noticeable that, at times, candidates had not read the instructions correctly and centres would benefit from explaining the correct examination requirements to the candidates. Candidates need to be encouraged to give an answer for the multiple choice style questions even if they are uncertain that they are correct. Centres are reminded that questions 1-15 cover the grade range from A* to U.

There was less duplication of circling answers seen during this examination session.

Important: Centres need to be aware that where a candidate has provided multiple answers to a single response question, no marks will be awarded.

Unit 2 - Section B of the papers showed a greater mixture of responses and teachers need to ensure they read the subject specific reports for further detailed feedback on specific issues and individual question performance.

Important: Candidates need to be careful that they do not repeat the question in their answer or write the same answer for several questions. Similarly candidates must not use certain terms as 'stock' answers. Such answers included:

'Environmentally friendly' and 'better for the environment' or 'damages the environment'.
To 'recycle' and 'recycling is good for the environment'.
'Cheaper', 'better' and 'stronger'.

The questions marked with an asterisk * provided candidates with an opportunity to give a detailed written answer combining good subject knowledge with an ability to produce a structured response. The response to the banded marked question this session was pleasing, with several candidates obtaining full marks, Candidates have benefited from centres preparing them for this type of question.

It was noticeable this session, that where extra paper was required to continue a question response, many candidates failed to reference the question number. It is important therefore, that centres teach candidates how to highlight where they are continuing an answer on a different page in the examination document.

Centres are reminded that candidates are assessed on spelling, punctuation and grammar on the banded mark scheme question.

It is also important to note that candidates need to ensure that they write legibly and within the areas set out on the papers.

Unit 4 – For this examination series of the Innovator suite entries were seen from all six subject specialisms:

Candidates responded reasonably well to the Unit 4 examination papers across the Innovator Suite. The papers were accessible to the majority of candidates, although there was still a small minority of candidates who did not attempt any of the questions at all.

Important: It was noticeable this session that candidates were relying upon knowledge from Unit 2 based around sustainable design, rather than technical understanding. This led to confused answers often compromising the higher mark.

The overall performance of candidates varied considerably across the suite. It was encouraging to see however, that most candidates demonstrated a good understanding of the technical aspects of designing and making across the specifications.

Important Note: Candidates need to:

Read through the complete question before attempting to answer. The examination includes sufficient reading time for candidates to focus on the key points to address in their answers. It was pleasing to see that some candidates produced a 'plan of action' before giving their answer to the questions with a high mark allocation.

Look carefully at the mark allocation and available space for their answers. Candidates need to be aware that there is a relationship between the space available and the length and quality of the expected answer, and thus the mark allocated.

Have a better understanding of the different command words used throughout the exam paper in order to respond appropriately to the questions. Across the suite there were many answers that lacked detail and clarity. Terms such as 'cheaper', 'quicker' and 'easier' were often used and meant very little without qualification or justification.

Become familiar with the quality of written communication questions marked with an asterisk*. These questions provide candidates with the opportunity to give detailed written answers combining good subject knowledge with an ability to produce structured, **coherent** responses and accurate spelling. Simply repeating the same point several times will not lead to the award of marks. A list of bullet points does not represent an adequate answer and will compromise the higher marks. Practice of this type of question which carries [6] marks is strongly recommended.

Respond to specification and/or bullet points accurately. In design response questions this is important if the candidate is to achieve the maximum marks available.

Make their answers clear and technically accurate. In questions that require candidates to produce sketches and notes, it is essential that answers are made as clear and technically accurate as possible. Marks may be compromised through illegible handwriting and poor quality sketches.

Controlled Assessment – Units 1 and 3

This examination series has seen portfolios for all six subject specialisms being submitted for Unit 1 both through postal and repository pathways. Unit 3 entries have been seen in A521, A531, A541 and A561 this session only. Most centres have been prompt in the dispatch of documentation to OCR and moderators, which is to be commended. It is important that centres forward form CCS160 in particular to moderators. It is helpful if centres also include a record of the marks allocated to each candidate, for each of the marking criteria sections.

Important Note: Candidates producing paper portfolios should be entered for postal (02) moderation. Candidates producing their portfolio on a CD or memory stick should be entered for postal (02) moderation.

Centres must ensure that if candidates are entered through the repository (01), the portfolios must be uploaded via Interchange and **NOT** sent through to the moderator on a disc.

In general, centres have been successful in applying the marking criteria for both Units 1 and 3. However, it is still noticeable that some candidates were being awarded full marks for work that lacked rigour and depth of analysis. Words highlighted on the marking criteria grids such as 'appropriate', 'fully evaluated', 'detailed' and 'critical', which appear in the top mark band, were not always adhered to.

Centres are reminded to apply the mark scheme on a 'best fit' basis which may mean allocating marks across the assessment grid. For each of the marking strands, one of the descriptors provided in the assessment grid that most closely describes the quality of the work being marked, should be selected. Marks should be positive, rewarding achievement rather than penalising failure or omissions.

It was still evident that a significant number of portfolios, particularly for Unit 1, resembled the legacy format, especially in terms of the excessive research and inappropriate critical evaluation.

It is important that centres encourage candidates to organise the portfolio according to the different marking criteria strands as it enables the candidates to produce work that clearly shows an understanding of the controlled assessment requirements. Portfolios should be clearly labelled with the Candidate and Centre name and number, with the unit code and title also evident. (*Specification - 5.3.5 Presentation of work*) This is particularly important when the Centre submits work via the OCR Repository, where individual files are used to store portfolio work. Centres need to ensure that candidates clearly label each file using the marking criteria section headings; this facilitates a more effective completion of the moderation process.

Important: Centres are also reminded to ensure that the OCR cover sheet is included with each portfolio of work, **outlining the theme and the starting point chosen by the candidate.**

Many candidates included a bibliography or referenced their research sources, which was pleasing to see. **It is good practice to ensure that candidates acknowledge sources of information used for the development of their portfolio work.** 5.3.2 *Definitions of the Controls* section in the specification states: "The teacher must be able to authenticate the work and insist on acknowledgement and referencing of any sources used".

Centres are to be reminded that the '*controlled assessment task must NOT be used as practice material and then as the actual live assessment material. Centres should devise their own practice material using the OCR specimen controlled assessment task as guidance.*' *Specification - Section 5.2.2 Using Controlled Assessment Tasks.*

Resits – Centres must remember that the theme, starting point and research aspects of the portfolio can be maintained. However, the remaining portfolio and final prototype should be redeveloped for submission.

Centres are to be commended on the amount of work produced for the portfolios in Units 1 and 3, which has been realistic in terms of the amount produced and the time allocated to each unit – 20 hours.

It is a requirement in the Making criteria that candidates "*demonstrate an understanding and ability in solving technical problems*". Centres must therefore ensure that problems encountered are written into the record of making, for the higher marks.

4.1 'Schemes of Assessment' clearly states that "*A Minimum of two digital images/photographs of the final product showing front and back views*" should be evident in the candidate portfolio. For Food Technology one digital image/ photograph is required. **It is the centre's responsibility to ensure that photographs are evident, are of a good quality and are of the candidate's own work.**

A521 Introduction to designing and making

General Comments

Most centres are now encouraging their candidates to organise their portfolio into separate sections according to the assessment criteria and present their work more concisely. A few candidates are still including work which is not required.

Portfolios were labelled clearly with both the candidates name and number and had the required OCR mark sheet.

Some centre's marks still required adjustments because the levels of response in the Assessment Objectives had been interpreted too leniently. However, there have been fewer adjustments than in the summer 2011 session.

Some centre's continue to award higher attaining candidates top marks, when in fact the work didn't show great capability and depth of involvement. Words such as 'appropriate', 'fully evaluated', 'detailed' and 'critical' which appear in the top mark band, were not adhered to fully. Recipes are now being adapted/modified during the Designing section of the portfolio in most centre's, but too often ideas were not explained or creative. Candidates should be encouraged to use their own ideas creatively throughout the whole design and make process.

Work which is annotated by the teacher clearly helps the moderation process. Many centres had done this particularly well but others failed to submit this evidence with the work. There should be photographic evidence of the practical work along with written teacher comments. This is particularly important for the low attaining candidates where there is little written evidence in their portfolio. **A separate cover sheet containing reference to the assessment criteria applied is of benefit to the moderation process.**

The use of writing frames and pre-printed sheets was less evident this session. It is important that high achieving candidates are given the opportunity to show flair and creativity in approaching the assessment criteria.

It is also important that candidates are given the opportunity to show individuality when approaching the various sections of the portfolio.

Assessment Criteria

The level of response is an important part of the mark scheme and should be carefully considered when assessing candidates work. The levels should equate to the quality of the evidence, the capability and depth of involvement that has been employed to produce what is on offer. Within an assessment criteria the quality of evidence to fulfil a particular level of response at a lower level must be very different from the evidence that might fulfil a similar level of response at a higher level. The capability and depth of involvement must be evident to gain the marks at the higher level.

Many centres are now encouraging candidates to clearly label the chosen Theme/Product and the starting point at the start of the portfolio. Candidates should develop a new product that meets an identified aspect of current healthy eating guidelines.

Cultural Understanding

It was noted by a number of moderators that this section of the portfolio was over marked. Candidates had collected and presented information on how changes in society, including cultural issues have influenced the products available today and some candidates are now linking their Theme to the information more effectively.

Information on healthy lifestyles is still much better than the section on cultural understanding.

Sometimes this section could be presented a little more concisely.

Some candidates continue to complete mind maps to highlight issues but then gave no explanation or meaningful conclusions/reflections on them.

A number of centres were over generous when marking this section because of lack of independent analysis.

Some candidates did not acknowledge sources of information.

A high level of response to this section would include:

- **Chosen product/theme and starting point clearly stated at the start of the portfolio.**
- **Considering how changes in society, including cultural issues have influenced the range of food products available today in relation to their chosen product/theme.**
- **Evidence of how wise choice of food products can promote healthy lifestyles.**
- **Information being presented concisely and the sources acknowledged.**

Creativity

Questionnaires continue to be the most popular method used to identify the needs of the user/target group/a nutritional focus but there is still evidence of irrelevant questions, graphs which were not analysed and/or the design brief not arising from the findings of research. Centres' credited candidates with full marks when there was little supportive evidence for the choice of the design brief and when a precise design brief had not been given. The design brief must include 1 nutritional focus. Some candidates did not justify their choice of target group and/or nutritional focus. Some candidates chose more than 1 nutritional focus resulting in the application of the nutritional data becoming more difficult later on in the portfolio. Some candidates still continue to present their design brief as a long and wordy "mini-specification". Candidates need to be encouraged to present a clear and concise design brief which allows the opportunity to demonstrate a wide range of practical skills.

Questionnaires that lacked focus did not allow candidates to identify the qualities respondents require from a new product. This resulted in existing products not being evaluated against identified needs and the design brief and the design specification at the beginning of the Designing Section not being developed from analysis of research. A number of centres credited candidates with high marks when analysis of the questionnaire results was very superficial. The standard of work regarding the evaluating of existing products continues to vary tremendously. Some candidates did not use their identified needs, others used pro-formas with the same identified needs throughout the centre, whilst others, clearly understood the requirements of the assessment criteria and used their own identified needs.

In some cases products were evaluated in the form of a table with no conclusions drawn from the results. Detailed evaluation of one product was seen by some moderators, but a number commented that evaluation of the chosen product tended to be very limited and superficial or tended to be a description of the product rather than an evaluation.

Some candidates chose inappropriate products to evaluate that didn't match their task, whilst others had evaluated four products in detail which is not required. Evaluation of packaging is not required.

Many candidates had used one method of research to identify and record relevant data to help design a creative innovative product. However, the data was not always presented concisely. Some candidates had included data which was irrelevant, whilst others had no evidence of data. Again, some candidates did not acknowledge sources of information.

A high level of response to this section would include:

- **Carrying out research eg questionnaires/interviews/available statistical data to identify the qualities required for the design of a creative, innovative food product/target group/a nutritional focus that the portfolio will focus on;**
- **Providing a detailed analysis of the results in order to identify the needs of the user/target group/nutritional focus which then leads to a clear and precise design brief;**
- **A design brief that includes one nutritional focus.**

Example of a concise and precise design brief: - Design and make a lower in fat ready meal aimed at families.

- **Critically evaluating existing products against the needs of the intended user(s) – four products in chart form with a conclusion and one product in detail;**
- **Relevant data which is edited and presented concisely. All sources of information should be acknowledged**

Weaker candidates tended to make very little reference to results of research resulting in rather vague briefs and superficial evaluation of existing products. This would be regarded as a low level of response.

Designing

The quality of design specifications continues to vary widely. Some candidates produced very detailed design specifications, other design specifications were far too brief and in some cases, teacher led. A number of candidates had not included a nutritional focus – a requirement of this controlled assessment. There continues to be evidence of the design specification not reflecting the findings from research in the creativity section of the portfolio.

The use of pro-forma sheets for the planning and evaluating of products limited candidates' creativity and initiative and tended to result in repetitive responses. Pro-forma sheets for this section of the portfolio were very evident this year.

Some candidates continue to choose products that show little or no skills or only allow them to show the same skills.

Most candidates chose four products to trial and showed adaptations/modifications to the original recipes. However, adaptations/modifications although recorded were often not explained and they lacked creativity.

A few candidates still fail to list the practical skills required for the making of each product.

Detailed annotated diagrams, sketches, equipment lists, methods, time plans or flowcharts are not required for this section.

Some candidates had trialled and tested a wide range of interesting solutions. There was good evidence of star diagrams/profiles and rating charts but marks were lost if these results were not always explained or conclusions drawn. Conclusions from testing did show good differentiation of candidates work and marks.

Detailed evaluations of ideas against the specification continues to be a weak area in this section for many candidates. Evaluations were often cursory with only a ticked chart and this cannot be considered a detailed evaluation. Some candidates had evaluated each solution but then failed to make any reference to the specification. Other candidates had evaluated the making of the products rather than the product itself. There was more evidence of candidates suggesting improvements to their products this year.

Nutritional analysis was either very well completed or very poor in any resultant explanation of analysis charts. A significant number of candidates failed to refer to their nutritional focus using available data, when evaluating their trialled products. Some candidates discussed more than one nutritional focus which is not required. Other candidates did not show any reference to a nutritional focus, a requirement of Unit A521.

Reasoned decisions with reference to ingredients and equipment for the final product (prototype) was well done by many centres, but some candidates failed to apply relevant nutritional data according to their nutritional focus when giving reasoned decisions.

Marks for the application and understanding of nutritional knowledge according to the chosen nutritional focus are awarded to the Making Section.

A high level response to this section would involve:

- **A detailed design specification reflecting research findings from the Creativity section of the portfolio.**
- **Proposing a wide range of appropriate solutions – listing a range of ideas before choosing four ideas to trail.**
- **For each product to be trialled – listing ingredients and practical skills, adaptations clearly explained and justified to produce creative and innovative ideas, nutritional analysis according to the chosen nutritional focus, evidence of testing by three tasters, detailed evaluation against the specification, and nutritional focus using results from testers as evidence, discussion of improvements taking into account users views.**
- **Using a wide range of appropriate techniques to present solutions.**
- **Giving reasoned decisions for ingredients, equipment for the final product (prototype), applying relevant nutritional knowledge and understanding**

Marking

Some candidates produced products that demonstrated a wide range of skills, but it was noticeable that many centres continue to credit candidates with high marks without evidence of this range of skills.

The use of digital cameras allowed candidates to include photographs of their work. Centres are reminded that the minimum requirement is a photograph of the final product.

In many centres, flowcharts had been correctly marked and candidates had clearly identified the processes involved. Nutritional analysis of the final product was evident in many candidates' portfolios.

To achieve high marks for practical work candidates need to select and use appropriate ingredients and equipment, work safely, hygienically, and skilfully to prepare, shape, form, mix, assemble (wide range of skills) and produce high quality, creative and innovative outcomes.

A high level response to this section would be:

- **Producing a detailed flowchart which clearly shows all processes required for the making of the final product (prototype).**
- **Showing thorough understanding and application of the chosen nutritional focus throughout the portfolio.**
- **Being resourceful and adaptable with materials, foods and equipment.**
- **Selecting and using appropriate ingredients and equipment.**
- **Working safely, hygienically, skilfully to prepare, shape, form, mix, assemble (wide range of skills)**
- **Produce high quality, creative and innovative outcomes.**

Evaluation

Many candidates provided evidence of testing of the final product (prototype) but conclusions, were often superficial and unsupported, resulting in the evaluations being descriptive rather than evaluative.

Comments when evaluating against the design specification continue to lack specific detail, stating the product had met the specification without any justification.

Most centres had given credit for spelling punctuation and grammar. Credit needs to be given in the Evaluations for SPAG even if there is no evidence of an evaluation.

A high level of response to this section would be:

- **Critically evaluating their product against the design specification and design brief using results of testing (five testers) to give meaningful conclusions.**
- **Suggesting possible improvements.**
- **Using specialist terms appropriately and correctly, presenting information in a structured format and accurate use of spelling, punctuation and grammar.**

Good practice within administration of the controlled assessment

Work should be removed from ring binders, presented so that pages can be turned without having to remove sheets from plastic wallets and securely fastened together eg by means of a tag, then clearly labelled with Centre Number, Name and Candidate Number. A Mark sheet/annotation sheet should be attached to each piece of work.

The Controlled Assessment Mark Sheet(s) should be sent to the moderator with the MS1. Centres need to make sure that this paperwork arrives to the moderator by the date specified by OCR and portfolios should be sent within 3 days of receipt of the request for the sample. Encourage the candidates to divide their work under headings for the separate Assessment Criteria.

Where more than one teacher is involved in the assessing of candidates work, the centre should carry out effective internal standardisation to ensure a reliable rank order.

A522 Sustainable design

The overall performance and range of results was similar to January 2011. Candidates generally performed better on the short questions in Section A than in the longer questions of section B, which required detailed answers. Some candidates were able to access the higher marks. However there is still some evidence that the candidates are entered for the exam when they have not covered the whole of the A522 specification. This was particularly evident in question 17(c).

There were a number of 'no response' answers – this occurred mostly on question 17(c) (i), 17(c) (ii), 17(c) (iii), 18(c). It was particularly disappointing to see candidates not attempting some of the questions in section A. Some candidates also ringed more than one answer and therefore did not score any marks.

Many candidates demonstrated a general awareness of the main points and issues linked to sustainable design however they lacked the specific knowledge and understanding required to answer questions in depth. It was particularly disappointing to see poor responses to question 7, 9 and 17(f) and 18(c). Some students gave sources of nutrients when functions were asked for (Q17f, 18c). These were the questions where students needed to use their nutritional knowledge.

On short response questions many candidates frequently provided two or more answers where only one was asked for. When multiple answers are given to a single response question, candidates will lose the mark for a correct answer if an incorrect answer is also given. Many candidates penalised themselves by supplying multiple answers.

In section B, many candidates lost marks through poor exam technique. A number of students wasted time and space re-writing the question before they began their answer. Many also presented answers to the 'explain' and 'discuss' type of questions as a haphazard collection of facts. The banded response question was answered much better this time which clearly showed that students had, had the opportunity to practice this type of question. Some students used the space at the side of the question to note the key facts they wanted to discuss and generally these were the higher scoring answers.

Candidates need to be made aware of the importance of the wording of each question and they need to understand the difference between terms like 'name', 'explain' and 'discuss'. They also need to consider carefully who the question is asking about eg in question 17c(iii) candidates were asked to write from the consumer's point of view.

The vocabulary of the candidates varied, many candidates fail to use specialist terms and therefore are unable to score all of the marks available. Examples of this were in questions 7 and 9 when many candidates referred to being healthy.

Many students were also let down by their poor spelling, punctuation and grammar and incorrect use of terms. Spelling of keywords, such as ingredients, nutrients, and vitamins was poor and vague terms were often used that did not convey sufficient understanding to warrant marks. Vague terms used in answers included: healthy, healthier, heart attack, heart problems, help the environment, pollution, climate change, harmful gases, environmentally friendly, cheaper.

SECTION A

Question 1

The majority of students answered this correctly. However some candidates answered (c) A, first letter of 'additives'

Question 2

This question showed candidates are not clear to the definition of food miles, giving a mixed response.

Question 3

Most candidates were able to give the correct answer.

Question 4

The majority of candidates knew that raspberries are in season during July.

Question 5

This question was answered well however a few candidates did not read carefully and answered (a) 'Cannot be broken down by bacteria'.

Question 6

Almost all candidates correctly identified the recycling symbol.

Question 7

The problems associated with fat in the diet were generally well known. Heart disease and becoming overweight / obese were the most common correct answers, but some candidates responded with 'health problems' or 'heart attack', so failed to gain the mark.

Question 8

Many candidates gave 'salmonella' as the correct response. Some answered 'e-coli' and pathogens'. There were a few incorrect references to mould. A number of no responses were seen on this question.

Question 9

Common correct answers were 'allergic reaction' and 'hyperactivity', but many that gave incorrect answers of 'hyper', 'full of sugar', 'bad for you' and 'effects on health', not explaining that they were long term / harmful.

Question 10

Most candidates attempted to answer this question and marks were generally gained for reference to high blood pressure, strokes and heart disease; however the reason for reducing salt intake was not well known and a considerable number of candidates wrote about salt being high in fat, or causing cholesterol or obesity.

Question 11 – 15

The majority of candidates answered these questions carefully.

Section B

Question 16

(a) (i) Drawings of how the leftover food could be used were often self explanatory, but candidates often failed to state whether the product was sweet or savoury, or indicate how to make it attractive and consequently lost marks. Some candidate's drawings were clear and showed how it was attractive and therefore gained marks even though they had not written about it. Quite a few candidates gave examples of both savoury and sweet products.

(ii) This was generally answered well, but some candidates gave ingredients that were already on the list, so did not gain the mark. Surprisingly a number of no responses were seen.

(b) More able candidates gave a variety of ways of reducing food waste, including planning / shopping / correct food storage and use of leftovers and they achieved high marks. Less able candidates tended to confine their answers to use of leftovers and composting.

Many candidates wrote in general terms about only buying or cooking what was needed, but gave no explanation of how to achieve this. Some students did not read the question properly and wrote about food packaging.

(c) Most candidates gained 1 mark for this question, usually for reference to food poisoning, knowing when to eat it by or being a legal requirement, but many lacked the depth of knowledge to achieve both marks.

(d) Correct storage of turkey products was well known and it was encouraging to see a large number of candidates giving correct fridge or freezer temperatures and knowing that meat should be covered and kept on the bottom shelf of the fridge.

(e) This question was not well answered. Most candidates were uncertain of the importance of a 'display until' date and did not relate this to food on shelves in shops. Many referred to the food 'going off'.

Question 17

(a) This question was well answered. Most candidates received at least 1 mark. Free range and battery were the most common answers.

(b) Many candidates wrote statements about animal welfare, but were not always able to explain sufficiently why certain farming methods might be preferred by consumers, to gain two marks.

(c) (i) This question differentiated well between candidates. Those who knew the definition could discuss the benefits and concerns in the following questions. Some students believed that genetically modified foods are created by adding artificial additives or chemicals and therefore did not score any marks.

(c) (ii) Candidates answering correctly generally referred to the quality and quantity of the food. A few commented on nutritional value and resistance to insects and diseases.

(c)(iii) This question was not well answered. Few candidates gained more than 1 mark, generally for concerns about health. Some candidates looked for clues from other parts of the question and wrote about GM foods coming from different countries.

(d) This question seemed to confuse most candidates and answers were poor. Only a few candidates made the link with protecting the rainforests. Most wrote about rainforests being in the USA rather than the UK or better climate in the USA.

(e) Some good responses were seen. Lactose intolerant was the most common answer and many candidates were able to link this to an allergy to dairy products. However, many who gave 'vegetarian' for the diet failed to get a mark for the reason, as they suggested that vegetarians eat no animal protein at all.

(f) The most common nutrients mentioned were protein or calcium. Some candidates did not know the word 'nutrient' and some did not attempt an answer.

Question 18

(a) This question was generally well answered. Many candidates were able to give two reasons why a consumer might buy Norfolk piccolo tomatoes.

(b) The majority of candidates gained a mark, with the most common answer referring to cost.

(c) Candidates were generally able to state one function of Vitamin C (immune system, healthy skin or scurvy most frequently given), but answers were generally poor. A lot of students confused Vitamin C with Vitamin A and referred to eyesight. Some candidates did not know the word 'functions' and gave three sources of Vitamin C.

(d) (i) The Red Tractor symbol was not well known. Many candidates repeated the wording from the symbol and therefore did not score any marks.

(d) (ii) The usual explanation of the symbol was that it related to products from the UK. Few candidates achieved the second mark.

(e) There were many suggestions for making packaging more environmentally friendly and the majority of candidates scored full marks.

(f) The response to this question was disappointing as there have been questions of a similar style on previous examination papers. The ingredients changed most often were butter and cheese. Many candidates lost marks by answering with ingredients that were incorrectly named, ie 'low fat cream cheese' and 'low fat butter' or by repeating reasons such as 'lower in fat'. Those who chose to change tomato puree to tomatoes scored better because their reasoning was different.

A523 Making quality products

General comments

Candidates are organising their portfolio into separate sections according to the assessment criteria and show appropriate use of ICT. Portfolios are labelled clearly with both the candidates name and number.

Assessment Criteria

Work which is annotated by the teacher clearly helps the moderation process. There should be photographic evidence of the practical work along with written teacher comments. **A separate cover sheet containing reference to the assessment criteria applied is of benefit to the moderation process.**

The use of writing frames and pre-printed sheets should be used with caution. It is important that high achieving candidates are given the opportunity to show flair and creativity in approaching the assessment criteria.

The portfolio should start with the chosen Theme/Product and all the work produced should relate to this chosen theme.

Designing

The design brief should be clear and concise.

The chosen theme and design brief should be analysed carefully so candidates can arrive at an appropriate design specification for a creative and innovative product which includes a target group.

The design specification should be structured to allow candidates to demonstrate a wide range of practical skills.

A range of possible, appropriate products should be listed before choosing four ideas to trial that allow candidates to demonstrate a wide range of practical skills.

Candidates are required to include forward planning at the start of the Designing Section eg a week by week plan – marks awarded to Making.

For each product to be trialled candidates should: -

- List ingredients
- Clearly explain adaptations – products should be creative and innovative
- If nutrition forms part of the design brief and/or design specification candidates are required to carry out nutritional analysis during the trialling of their products and refer to the results during evaluation.
- Make each product and provide photographic evidence – marks awarded to the making section of the assessment criteria. The photographs required by OCR are to be the candidate's practical products. Other photographs should be acknowledged or not included.
- Practical ideas must be creative and innovative if high marks are awarded.
- Show evidence of testing by three tasters

- Evaluate against each point in the specification using results from testers as evidence
- Discuss any improvements taking into account testers views.

Candidates are required to choose one of the trialled products for product development and clearly explain why the chosen product is being taken forward and why other ideas have been rejected.

Making

One product should be taken forward to product development.

Candidates are required to carry out two modifications before deciding on their final product. The first modification should show reference to the comments made when the product was originally trialled. All further modifications should be justified, reflecting comments made by testers from the previous modification so the product is being developed according to user(s) views. Each modification should be evaluated in detail.

Practical ideas must be creative and innovative.

During product development candidates should: -

- List and cost ingredients giving reasons for the changes being made showing consideration to the comments given when the product was originally trialled and the comments made by testers during development work.
- Show evidence of testing by five tasters.
- Carry out nutritional analysis if this is relevant to the brief/design specification

For the final product there should be evidence of ; -

- Reasoned decisions for the choice of the ingredients and equipment
- Costing of the ingredients
- Nutritional analysis if this forms part of the brief and/or design specification.
- A product specification which should arise from the design specification and conclusions reached from development work including a labelled sketch/drawing of the final product
- A plan for the making of the final product eg flowchart.

To achieve high marks for practical work candidates need to select and use appropriate ingredients and equipment, work safely, hygienically, skilfully to prepare, shape, form, mix, assemble (wide range of skills) and produce high quality, creative and innovative outcomes.

Evaluation

There should be evidence of testing by five tasters. A high level response requires candidates to critically evaluate the final prototype (product) against the product specification using results of testing to give meaningful conclusions, leading to suggestions for possible improvements. Specialist terms should be used appropriately and correctly, information should be presented in a structured format and there should be accurate use of spelling, punctuation and grammar.

Good practice within administration of the controlled assessment

Work should be removed from ring binders, presented so that pages can be turned without having to remove sheets from plastic wallets and securely fastened together eg by means of a tag, then clearly labelled with Centre Number, Name and Candidate Number. Mark sheet/annotation sheet should be attached to each piece of work.

OCR Report to Centres - January 2012

The Controlled Assessment Mark Sheet(s) should be sent to the Moderator with the MS1. Centres need to make sure that this paperwork arrives to the Moderator by the date specified by OCR and portfolios should be sent within 3 days of receipt of the request for the sample. Encourage the candidates to divide their work under headings for the separate Assessment Criteria.

Where more than one teacher is involved in the assessing of candidates work, the centre should carry out effective internal standardisation to ensure a reliable rank order.

A524 Technical aspects of designing and making

General comments

The overall performance of candidates was pleasing. Candidates were able to attempt all parts of the paper. Questions were well differentiated and all questions were accessible, especially the two longer response questions where the majority of candidates were able to gain at least 2 marks.

It was pleasing to see an improved knowledge of nutrition by the majority of candidates. However, some candidates are still losing marks for vague answers such as 'vitamins' and 'minerals'. Exam technique had been addressed by many centres, reflecting fewer repeat answers within questions and the design question in particular showed clear answering of the specification points enabling candidates to gain higher marks. There seemed to be a clearer understanding by candidates of the 'command' words at the beginning of each question and a better understanding as to what was expected within the 'explain' question (2d) to enable them to achieve full marks.

The paper clearly covered a large part of the Specification and it was good to see pupils both understanding key technical terms and using them within their responses.

Candidates need to be encouraged to read the question through before writing their responses. Some candidates did underline the key words in the questions.

Comments on individual questions

Question 1

- a) This was generally well answered with most candidates scoring 3 out of 4 marks. It was good to see industrial practices being stated such as wearing a hat, using blue plasters, wearing a clean uniform as well as the more domestic responses of wearing an apron, removing jewellery and tying hair back. Common incorrect answers related to general kitchen hygiene rules rather than those linked to personal hygiene .
- b) This question had a mixed response due to the content of the answers lacking correct specific detail. For example, reference to 'don't point at people and carry point towards you'. Correct answers included 'cut on a chopping board', 'concentrate and use carefully', 'use a clean knife' and 'wear gloves'. Common incorrect answers included 'don't play with knives, keep fingers out of the way, and don't run with them'. Few scored full marks. It was pleasing to see 'Using the bridge and claw technique', where candidates had been taught this within their practical work.
- c) The most common responses included 'to control bacterial growth', 'making sure food was cooked thoroughly', 'to prevent food poisoning' and reference to the 'danger zone'. It was disappointing to see some candidates failing to get marks by using the term 'going-off'.
- d) This question was extremely poorly answered with little or no understanding of the stages of the chilling process. A few candidates gained one mark for the correct answer of 'products are cooked' or 'store in a fridge'. Many incorrect assumptions were related to the product being frozen and then defrosted before use. Of all the questions on the paper this was the worst answered. Candidates did not know about the chilling process.

Question 2

- 2 a) This question was well answered with many candidates gaining full marks. Common correct responses included 'creaming', 'whisking' and 'rubbing in'. Where candidates failed to understand the term 'method for making', their answers were linked to cooking methods, for example 'baking' or 'use of oven'.
- b) It was pleasing to see that candidates had an improved knowledge of the functions of ingredients which was applied to a cupcake mixture. Popular correct responses included 'flour helps cake rise and forms the bulk', margarine 'adds colour or flavour', eggs 'trap air and binds ingredients together', vanilla essence 'adds flavour'. Where candidates did not gain the full four marks it was often because the same function response was repeated.
- c) This was answered very well by giving two correct reasons for decorating the cakes. Common responses included 'to make it look more attractive', 'improve sales', 'add flavour'. Many candidates gained full marks.
- d) This question was answered very well with most candidates gaining 2 marks. 'Cutting cost' and 'saving time' were the most popular answers although 'consistency' and 'quality' were also used. It was good to see many candidates explaining the points enabling them to score 3 or 4 marks. A clear understanding of Industrial processes was seen. Some candidates gave brief or incorrect answers which often included 'its quicker', 'cheaper' without qualification.

Question 3

- a) Responses were mixed. Candidates sometimes misinterpreted the question and linked it to market research. Correct answers focussed on making sure the product would be popular and therefore would sell well, and any modification to the recipe could be made to meet target group needs. Too many candidates included answers that lacked knowledge. For example, 'you need to know what is in it', and 'compare what's on the market' or reference to production and packaging.
- b) It was pleasing to see that the majority of candidates had a sound understanding of the dietary needs of a pregnant lady and again, many scored highly on this question. Common correct answers included 'high protein', 'iron', 'calcium', 'rich in fruit and vegetables' and 'folic acid'. Nutritional knowledge was sound here. Where candidates lost marks it was due to stating vitamins and minerals but not naming them or using single words such as 'protein', 'fat', 'salt'.
- c) Where they had understood the question there were some good answers but they were not always well constructed and written. Responses included 'busy lifestyle', 'travel abroad', 'the influence of different cultures', and reference to financial aspects, namely the recession. The ranges available to suit all ages, dietary requirements and cultural perspectives were also discussed. This question was generally answered well with many candidates gaining half marks. Few discussed environmental issues. There were some very well structured and flowing responses where candidates had obviously pre planned their response to include a range of technical terms. The majority of candidates gained Level 2, (3 to 4 marks). A limited number of candidates gained Level 3, (5 to 6 marks) due to their expansion on the content of their answer and using specialist terms. Some candidates failed to read 'changes in society' and consequently they achieved few or no marks.

Question 4

- ai) The majority of candidates understood how the spaghetti bolognese could have the fat content reduced. Common popular responses were 'buy lean minced beef', 'reduce the quantity of oil', or change the beef to 'Quorn'. A few incorrect answers related to the question being misread and being linked to fibre and not fat.
- a ii) It was apparent that some candidates lacked knowledge of the required vitamins and their function found in fat. Many attempted the vitamin without the functions in the diet or the named vitamin was not correctly linked with its function in the diet. However, for those who were awarded marks, the responses included; 'vitamin A linked to healthy eyesight', 'vitamin D linked to maintaining strong bones' and a few identified 'vitamin K linking to helping blood clotting'.
- bi) The most common responses included 'increase spaghetti' or 'use wholemeal spaghetti', 'adding a named vegetable or using fresh tomatoes'. Many stated adding 'more vegetables' without naming them and failed to get marks.
- b ii) Candidates applied their knowledge well with regard to functions of fibre in the diet with responses mainly focussed on preventing constipation and a healthy digestive system. Some candidates developed their answer to include bowel disorders, keeps faeces soft and bulky. There was a misconception by some candidates who thought that fibre made your food digest and others who thought that fibre provided the body with energy.
- c) Candidates did not understand what was required in their responses and their suggested designs for a new creative savoury product were generally extremely disappointing. Lack of imagination was apparent with very few candidates showing any creativity or originality for a new product. A vast majority referred to using the bolognese sauce over a jacket potato or pasta. A very limited number suggested layered pies or use of pastry.

Question 5

Many candidates clearly designed to the Specification given, making it clear why they had used the ingredients chosen. There was a clear understanding by many candidates as to which foods were in season. A very limited number of candidates gained full marks by meeting the points in the design specification. Designs were extremely variable; however, there was an improvement in the quality and content of the overall labelling in these designs from previous years. Candidates identified the season and usually a named coloured vegetable. Protein was also correctly identified, the common response being chicken or beef. Where marks were not awarded this was generally due to a lack of understanding of the product being well flavoured. Some candidates made up their own specification points and failed to address those in the question and designed a fruit product or dessert.

- b) Many candidates correctly identified two suitable ingredients that could be used for thickening a soup. 'Plain flour', 'corn flour', 'potato' and 'gravy granules' being the most common correct responses. A common incorrect answer that was included in their responses was 'stock'.
- c) There was good differentiation in the responses to this question. Most candidates gained at least 2 marks. The range of response was interesting to read and allowed candidates to approach this question from a variety of angles. Some focussed on the labelling aspects, others on the different packaging linked to the purpose and function required from the product making reference to different packaging materials and their shelf life, with reference to contamination and sealable/leakage qualities. Others considered the environmental issues and the transportation of the product requirements.

Discussion of different needs for different types of soup were also highlighted by candidates. Higher level responses showed the use of more technical terms and again reflected a logical and planned approach resulting in a well structured and informative response. Candidates who were awarded Level 3 (5 to 6 Marks) had developed their answers further to include aspects of legal requirements on packaging, attractive designs for the label, costs, and reference to sustainable issues. To gain high marks on the banded response question candidates must show a detailed understanding, use specialist terms and demonstrate an accurate use of spelling, punctuation and grammar. Weaker answers were more like a list of points with little or no further explanation.

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