

Design and Technology: Food Technology

General Certificate of Secondary Education **J302**

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

OCR Report to Centres

January 2013

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.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support, which keep pace with the changing needs of today's society.

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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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 fourth year for the 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 need to remember the following change in the Innovator Suite: This is the last year of a January and June examination series. This specification will only examine in June from 2014 onwards.

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 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 generally the same as seen in the last examination series – June 2012. There are variations within the subject specialisms and centres would benefit from reading the individual subject reports for this unit. 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. There was also a significant improvement in the written response style question* this series, with candidates giving detailed answers combining good subject knowledge with an ability to produce a structured response.

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. Candidates generally demonstrated an improved understanding of sustainable design, but were still hampered by poor exam technique. Misunderstanding or misinterpreting the question, or not reading the question carefully enough was evident throughout the suite of papers. Candidates must be encouraged to take notice of the key word in the stem of the question to identify whether the question requires them to explain, describe, discuss, state, name or give.

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

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. There has been a significant improvement in the written response style question this series, with candidates giving detailed answers combining good subject knowledge with a clear, structured response.

It was noticeable this series that where extra paper was required to continue a question response, many candidates failed to reference the question number thus compromising marks. 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 need to be aware that questions may appear on the back page of the examination document and candidates should be encouraged to check carefully that they have completed ALL questions.

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.

The overall performance of candidates was varied across the suite once again this session. Principal Examiners noted that candidates appeared to be better prepared for the written paper and there were several positive aspects evident in the January series:

- Candidates generally demonstrated sound knowledge of school-based processes and techniques.
- There were some very good answers to the Quality of Communication questions, where candidates combined their technical knowledge with an ability to present the information in a structured and coherent manner.

There were some very good answers to questions addressing specific areas across the Innovator Suite, including:

- *Modern Materials* [Textiles]
- Sound *nutritional knowledge* [Food]
- Good knowledge of the *benefits of CAD* [Industrial Technology]
- The techniques associated with *line bending* [Resistant Materials].

However, there are some areas which Principal Examiners have highlighted as being in need of improvement:

- Candidates should try to attempt every question
- It is important that candidates read the questions carefully to determine exactly what is required before attempting an answer. It can be helpful for candidates to highlight what they consider to be the 'key' words or instructions
- In those questions that require candidates to produce sketches and notes, it is essential that answers are made as clear, detailed and technically accurate as possible
- Knowledge and understanding of industrial processes compared with school-based processes was considerably weak
- There were many instances where examiners were unable to decipher illegible handwriting and poor quality sketches.

Controlled assessment – Units 1 and 3

Most centres have been prompt in the dispatch of documentation to OCR and moderators, which is to be commended. **It is important that centres return the request for portfolios within three days.**

Centres are reminded to forward form CCS160 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 also be entered for postal (02) moderation.

Centres must ensure that if candidates are entered through the OCR Repository (01), the portfolios must be uploaded via Interchange and **NOT** sent through to the moderator on a disc. The preferred format of files presented for this type of moderation needs to be PowerPoint, PDF or Word, with work saved in ONE file only and numbered, not as individual sheets saved in different files.

In general, centres have been successful in applying the marking criteria for both Units 1 and 3. Centres are reminded to apply the mark scheme on a 'best fit' basis which may mean allocating marks across the assessment grid. Marks should be positive, rewarding achievement rather than penalising failure or omissions.

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.**

JCQ documentation on Controlled Assessment (September 2011 – August 2012) clearly states that any guidance given to candidates must be clearly recorded. *4.5.2 When marking the work, teachers/assessors **must not** give credit in regard to any additional assistance given to candidates beyond that which is described in the specification and **must** give details of any additional assistance on the appropriate record form(s). **This includes providing writing frames specific to the task.** (eg outlines, paragraph headings or section headings).*

In light of the information given above, centres need to take care when using writing frames in the controlled assessment portfolios.

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.

Important: 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.** Marks were compromised here this examination session.

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. **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

Portfolios were generally well organised into the separate sections according to the assessment criteria. Some centres still need to encourage candidates to present their work more concisely and discourage them from including work which is not required. The majority of portfolios were labelled clearly with both the candidate's name and number and had the required OCR mark sheet.

The standard of work continues to vary greatly. Moderators saw some excellent work but other portfolios were of a very low standard. Some centres' marks, still required adjustments because the levels of response in the Assessment Objectives had been interpreted too leniently. However, there were fewer large adjustments this year.

Some centres continue to award higher attaining candidates top marks, when in fact the work didn't really 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 really adhered to.

Recipes are being adapted/modified during the Designing section of the portfolio in many centres, but there is still evidence of ideas not being explained or being 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 a few failed to submit this evidence with the work. Photographic evidence of the practical work was more evident this year although this was not always supported 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 required by OCR.**

The use of writing frames and pre-printed sheets was again evident this year. 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.

Resources are available on the OCR website to help support teachers in the delivery of the controlled assessment. The link is <https://www.ocronlinetraining.org.uk>

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 each assessment criterion the quality of evidence to fulfill a particular level of response at a lower level must be very different from the evidence that might fulfill 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.

The vast majority of 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

This section was generally better this year but many centres are still too generous when awarding marks.

- Candidates had collected and presented information on how changes in society, including cultural issues have influenced the products available today but many candidates are still not linking the information to their chosen theme
- Information on healthy lifestyles continues to be better than the section on cultural understanding. Sometimes this section could be presented a little more concisely and linked more closely to the chosen theme
- Some candidates continue to complete mind maps to highlight issues but then gave no explanation or meaningful conclusions/reflections on them
- Some centres are still rather generous when marking this section because of lack of independent analysis
- Acknowledging sources of information is still an issue in some candidates' portfolios.

A high level of response to this section would include:

- **A chosen product/theme and starting point clearly stated at the start of the portfolio**
- **Consideration of 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 presented concisely with 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 continues to be 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 one nutritional focus. There was less evidence of candidates focusing on a number of nutritional aspects. This clearly allowed candidates to show greater understanding and application of nutritional knowledge. However, some candidates did not justify their choice of target group and/or nutritional focus and some candidates had established a design brief before carrying out any research.

Questionnaires that lacked focus did not allow candidates to identify the qualities respondents require from a new product which 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. Most candidates had evaluated four products in the form of a table and provided evidence of some conclusions. However, too often the conclusions were very superficial and showed lack of understanding.

Where evaluation of one product in detail is taking place, some candidates continue to offer very limited and superficial comments or the evaluation tends to be a description of the product rather than an evaluation, often using information from the packaging.

Identifying and recording relevant data was rather disappointing. Some candidates had included data which was irrelevant, whilst others had no evidence of data.

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 centre on;**
- **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.

- **Critical evaluation of 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

Most specifications are now linked to prior research and included reference to a nutritional need. There are still a few centres which list several nutritional needs and often these candidates fail to discuss them all in the follow on work.

The use of proforma sheets for the planning and evaluating of products limited candidates' creativity and initiative and tended to result in repetitive responses. Proforma sheets for this section of the portfolio were still evident this year.

Some candidates continue to choose products that show little or no skills or only allow them to show the same skills. Choosing appropriate products according to the design brief/specification/nutritional focus is also an issue in some candidates' work. Most candidates chose four products to trial and showed adaptations/modifications to the original recipes. However, adaptations/modifications although recorded were not always explained and in many centres lacked creativity. Too many candidates are still focusing on changing ingredients just in terms of the nutritional focus rather than applying other ways of adapting products.

Most candidates had listed the practical skills required for the making of each product. 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 continue to be the weakest 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. A few candidates had evaluated the making of the products rather than the product itself. However, many candidates did suggest improvements to their products.

Candidates carry out nutritional analysis using an appropriate computer programme but a significant number still fail to refer to the data with regard to their nutritional focus, when evaluating their trialled products. Reasoned decisions re: ingredients and equipment for the final product (prototype) was well done in many centres but some candidates failed to apply relevant nutritional data according to their nutritional focus when giving reasoned decisions. Too many centres awarded high level responses for nutritional knowledge in the making section when there was little evidence of independent analysis in relation to the candidates' nutritional focus in both the trialling work and when giving decisions relating to the final product (prototype).

Some candidates are still including reasons for choosing the final product idea and rejecting the remaining ideas, which is not required in Unit A521. 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 trial**
- **Each product to be trialled including a list of ingredients and practical skills and 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.**

Making

Some candidates produced products that demonstrated a wide range of skills, but it was noticeable that some 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 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 but was not always applied. 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.

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 and skilfully to prepare, shape, form, mix, assemble (wide range of skills)**
- **Producing 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.

Some candidates focussed on how well they had progressed throughout the portfolio rather than evaluating the final product against the design specification and suggesting how the product could be improved based on results from testing. Most centres had given credit for spelling punctuation and grammar. Credit needs to be given in the Evaluations for SPG 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

- 1 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.
- 2 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 three days of receipt of the request for the sample.
- 3 Encourage the candidates to divide their work under headings for the separate Assessment Criteria.
- 4 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 June 2012. Candidates generally performed much better on the short questions in section A than in the longer questions of section B, which required detailed answers. However there is still some evidence that the candidates are entered for the examination when they have not covered the whole of the A522 specification. 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. This was particularly noticeable in question 16(a) and 17(d) and 18(e).

It was pleasing to see that there were a fewer number of 'no response' answers given in this series. Most candidates attempted the majority of the questions in section A. Some candidates also ringed more than one answer to questions 1 – 5 and therefore did not score any marks as a result.

In section B, candidates continue to lose marks through poor examination technique. 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'. Some candidates presented answers to the 'explain' type of questions as a haphazard collection of facts, not necessarily related to the question. However, it was pleasing to see that in some centres candidates had clearly planned how to answer the banded response questions and many candidates scored well on this question. A number of candidates wasted time and space re-writing the question before they began their answer.

Many students were also let down by their poor standard of English and used vague terms which did not convey sufficient understanding to warrant marks. Vague terms used in answers included: healthy, healthier, heart attack, heart problems, helps the environment, pollution, climate change, harmful gases, environmentally friendly, cheaper.

Section A

Question 1

This question was not well answered. Storage information was the most frequently given incorrect answer.

Question 2

The answer was not well known, with many candidates opting for (c).

Question 3

The majority of candidates answered this question correctly.

Question 4

There was a mixed response to this question, with some candidates incorrectly saying one week.

Question 5

Most candidates answered this question correctly.

Question 6

Many candidates recognised the outer part of the symbol and gave 'recycle' as their answer or 'recycling bottles', but students needed to refer to recycling of glass to gain the mark. Many candidates referred to 'keep Britain tidy' and 'don't litter' which were incorrect.

Question 7

This question was generally well answered, with bananas, chocolate and coffee being the most frequent answers.

Question 8

This was an A* question. Very few candidates knew that methane was produced when food waste rots in landfill sites. A number of gases were suggested, predominantly carbon dioxide.

Question 9

This question was generally well answered. Brussels sprouts, carrots and potatoes were popular answers. Where candidates were given zero marks they had usually named a fruit instead of a vegetable.

Question 10

Most candidates were able to suggest why we should eat less sugar; many showed a good awareness of the link between sugar intake and diabetes. A number of students are still referring to 'rotting teeth'. It is important that candidates are taught the correct subject-specific language.

Question 11

The majority of candidates knew we should not buy foods which have lots of plastic packaging.

Question 12

The majority of candidates answered this question correctly.

Question 13

There was a mixed response to this question.

Question 14

The majority of candidates answered this question correctly.

Question 15

There was a mixed response to this question.

Section B

Question 16 (a)

This question was not answered very well. A few candidates were able to explain about preserving fish stocks for the future, obtaining fish from a reliable source or traceability. The majority, however, either referred to general points related to sustainability or wrote about the fish being cheap, healthy, better quality, having a good life, or produced by the council.

Question 16 (b)

This answer was generally well known, but a considerable number of candidates said we should be eating five portions of fish per week.

Question 16 (c)

The majority of candidates scored a mark for this question. The most common correct answers were omega3, and protein.

Question 16 (d)(i)

It was pleasing to see many creative designs. Most candidates gained marks for using a named fish and including a vegetable. Many designs showed fish-shaped products to appeal to children. The specification point that caused the most difficulty was 'include a casing'. Many students did not understand the word in connection with food and they misinterpreted it as packaging for the product. The question did say not to draw the packaging and this instruction was not followed by many candidates.

Question 16 (d)(ii)

A few candidates were able to name a suitable method of cooking suitable for the product they had designed. The majority of candidates stated 'put it in an oven' which is not a method of cooking and therefore did not score a mark.

Question 16 (d)(iii)

The majority of candidates scored at least one mark for this question, usually for stating the fridge or freezer. Many candidates scored the additional mark for the reason or giving the correct temperature of the fridge or freezer.

Question 17 (a)

There was evidence that some candidates had planned their answers and this resulted in them scoring in the top mark band. Common advantages given were food miles, cost, food being fresher and supporting available in season. Candidates were able to explain advantages better than disadvantages and some candidates became confused when they tried to incorporate issues such as organic/use of additives/free range, taken from the information in the advertisements given. Disadvantages were generally expense or limited variety.

Question 17 (b)(i)

Candidates generally answered this part of the question well and popular answers were recyclable and biodegradable.

Question 17 (b)(ii)

Potato starch film was not as well known. The most common correct answer referred to the transparency which scored a mark. Some candidates confused it with cling film, while others tended to repeat points already given for cardboard or incorrectly stated that it is recyclable.

Question 17 (c)

The majority of candidates answered this question correctly. The most popular correct answers referred to the use of logos.

Question 17 (d)

Many candidates knew the distinction between Use by and Best before dates, but failed to explain it well. Candidates lost marks for saying 'use by date showed when the product had to be used by' instead of 'eaten by'. Few candidates achieved 2 marks for each term.

Question 18 (a)

Few candidates were able to suggest four ways in which the fat content of the cottage pie could be reduced. Many students achieved one or two marks, but then suggested changing white bread to brown, or removing the salt or wine.

Question 18 (b)

Most candidates scored at least one mark on this question making reference to obesity, heart disease or links to cholesterol.

Question 18 (c)

Most candidates answered this correctly.

Question 18 (d)

Many candidates gained at least two marks. Students were able to identify which ingredients needed to be removed to make the cottage pie suitable for vegetarians and there was an awareness of a variety of ingredients that could be used to replace meat. However, a large number of candidates were not familiar with beef dripping and wrote about changing it for plant or vegetable dripping.

Question 18 (e)

Only a few candidates gained full marks for this question. Those that scored four marks clearly made reference to the effect on the cost of the product and consumer choice as one point and the carbon emissions/effect on the environment. Food miles and carbon footprint were also common correct answers however they were often not clearly explained. Very few made reference to renewable/non-renewable energy. Some misread the question, interpreting it as the amount of energy in the cottage pie so they wrote about calories and fat; others wrote valid points, relating to the cost of the product and environmental concerns, but without sufficient explanation to gain full marks.

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 candidate's 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 required by OCR.**

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, 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
- Carry out nutritional analysis during the trialing of their products and refer to the results during evaluation, if nutrition forms part of the design brief and/or design specification
- Make each product and provide photographic evidence – marks awarded to the making section of the assessment criteria. The photographs required by OCR are to view the candidate's practical products. Other photographs should be acknowledged or not included
- Be creative and innovative in practical ideas 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 the Administration of the Controlled Assessment

- 1 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.
- 2 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 three days of receipt of the request for the sample.
- 3 Encourage the candidates to divide their work under headings for the separate Assessment Criteria.
- 4 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 design and making

The examination paper was reasonably well attempted by the majority of candidates and a good range of marks was obtained. There were some candidates who did not attempt some of the questions. The paper was accessible to the majority of candidates with marks covering the whole range, all having time to complete the paper. Some candidates did not give sufficient detail in their responses and were therefore disadvantaged. There is still too much use of the terms: cheaper, healthier, colourful, tasty, flavoured, and faster without any qualification or justification. It was pleasing to see a sound nutritional knowledge by some candidates who were able to gain marks here. Many more candidates are trying to explain the term 'healthy' linking it to specific nutrients, named vitamins and minerals or linking to the 'Eatwell Plate', or balanced diet.

Candidates who had clearly learnt and understood the work performed well. The paper differentiated well with high attaining students able to show their breadth and depth of knowledge in some of the extended questions. Candidates' written English still causes concern and deciphering responses was sometimes difficult on low-scoring papers. Some responses were very general without actually stating facts. Candidates need to be encouraged to read the question through carefully before writing their response as some misinterpreted what was required and, as a consequence, gained no marks. It was however, pleasing to see improved responses on the banded response questions, in particular the food hygiene rules to be followed when storing, preparing and handling meat. This was clearly understood by the majority of candidates. The second banded response question was very poorly answered. Candidates had little knowledge or understanding of CAD/CAM and how it could be used in the design and manufacture of food products. Candidates' performance on the design question was much improved on previous entries with many candidates clearly addressing the specification points with both designs and written annotation. The responses were particularly strong in identifying their reference to hand-held and high in energy. One disappointing factor was that there were numerous responses where candidates had designed a sweet product instead of savoury.

Section A

Question 1 (a)(i)

The vast majority of candidates gained half marks with common correct responses being 'butter to margarine', changing 'parmesan cheese to cheddar' and 'prawns to tuna or a named vegetable'. Incorrect answers focused on reducing ingredients without identifying a named one or stating 'less ingredients' and 'cheaper cheese'.

Question 1 (a)(ii)

This question was generally well answered with most candidates understanding the need to reduce the fat, cholesterol, or salt and increasing the fibre. Popular responses were 'butter to low fat spread or oil' and 'rice to wholemeal rice'. Candidates frequently failed to use the correct terms of 'low fat spread' or 'lighter/lite butter'. Some candidates failed to gain marks as they removed ingredients without suggesting a replacement.

Question 1 (b)(i)

Generally, most candidates gained two marks showing an understanding of what foods were considered as a staple food. Most popular responses were bread, potatoes, and pasta. Some candidates failed to gain marks for stating 'vegetables' or including both 'pasta and spaghetti'.

Question 1 (b)(ii)

This question differentiated well. Candidates who did know the answer frequently wrote sufficient answers in order to achieve the 2 marks. There was a wide variety of responses with many candidates suggesting correctly; 'regularly eaten each day', 'good source of carbohydrate' and 'good with a variety of other foods'. Some explanations were vague and therefore did not gain full marks.

Question 1 (c)

Generally, most candidates gained one mark for this question. Correct answers included meeting needs of 'target group', 'improving the sensory qualities' and reference to budget or lower in fat range.

Question 2 (a)(i)

Many candidates gained one mark showing a good level of understanding of a method of cooking a joint of beef. Common correct answers were 'roasting' and 'slow cooking'. However, there were too many candidates incorrectly suggesting 'grilling' or simply stating 'oven.'

Question 2 (a)(ii)

Correct responses focussed on 'developing flavour' and 'tender and crisp outside'. Incorrect answers referred to 'baking', 'because you cook it' or other vague terms.

Question 2 (b)

The majority of candidates gained at least two marks for this question with many gaining the full four marks. They usually correctly identified the nutrients found in meat as protein, fat and iron with correct corresponding answers, growth and repair of cells, insulation and warmth, and formation of red blood cells/transportation of oxygen. Incorrect answers were linked to responses 'fibre and vitamins' without naming B group, and reference to 'healthy blood'. Functions were sometimes incorrect.

Question 2 (c)

This banded response question was well answered with the majority of candidates demonstrating a sound understanding of the food hygiene rules that should be followed when storing, preparing and cooking meat. Far more candidates than seen previously gained at least three marks. There was a clear understanding shown of key terms; 'cross contamination', 'red chopping boards', 'use of refrigerator', 'danger zone' and 'cooking temperatures'. Many discussed the importance of using a 'temperature probe' to check meat was cooked thoroughly as well as the usual hygiene generic rules of washing hands, clean equipment and surfaces. There was good use of technical terms and understanding. The more able candidates also included correct terminology related to actual temperature ranges for cooking and storing meat.

Question 3 (a)

This question was well answered with the majority of candidates gaining full marks with the majority of answers based around strong bones and strong teeth. It was disappointing to see that some candidates are still using the term 'healthy' bones'.

Question 3 (b)(i)

This question was poorly answered. The most common incorrect answer was semi-skimmed milk or candidates ticked two milks as they had not a clear knowledge of the correct answer. Some candidates did not know what whole milk was.

Question 3 (b)(ii)

A sound attempt was made by many candidates; many did link it back to calcium which was incorrect but many listed the 'ease of eating yoghurt', 'packaging qualities', 'fruit', 'flavours' and 'useful for packed lunches and snacks'.

Question 3 (c)(i)

Candidates made a good attempt at this question. Answers were generally linked to 'destroying bacteria' or 'extend shelf life'. Weaker candidates often referred to 'germs'. Candidates of all abilities generally gained one mark.

Question 3 (c)(ii)

This question was very poorly answered. Candidates did not have an understanding of how milk is pasteurised. Vague, simple statements were often evident or candidates did not attempt the question. A few candidates gained one mark as they stated that milk is heated to a high temperature and then cooled.

Question 3 (c)(iii)

Few candidates gained one mark. Those who did gain a mark stated 'condensed', 'sterilize' or 'UHT'.

Question 3 (d)

This question was very poorly answered with many stating specification points rather than linking it up to a design brief. Most candidates gained one mark related to a factor that a manufacturer would consider when developing a design brief for a new milk product. Common correct answers were, 'identifying a target group', 'current dietary needs', for example, 'high in fibre, lower in fat'. 'Storage' considerations were also referred to frequently. Incorrect answers were based around types of milk without being specific. Candidates must read the questions carefully as most candidates should have understood the areas that could be included within a design brief due to their Controlled Assessment work.

Section B

Question 4 (a)(i)

This question was very well answered by candidates identifying a suitable target group for the cauliflower cheese. Families, elderly, teenagers and vegetarians were the most popular groups. Incorrect responses included 'British People'.

Question 4 (a)(ii)

This question was well answered with the majority of candidates stating two reasons for their choice, including; quick to cook, portion size, nutritional reasons, meat free and reference to lack of skills. A few candidates included reasons linked to teenagers not liking the dish, or quick and easy without further explanation.

Question 4 (a)(iii)

Candidates gained one mark for correctly stating a season not a month.

Question 4 (a)(iv)

Many candidates gained two marks for correctly stating 'Cheddar' 'Stilton' 'Red Leicester'. It was very disappointing to see candidates who thought that 'Edam', 'brie' and 'Gouda' were British or they stated simply 'blue cheese'.

Question 4 (b)

It was disappointing to read many poor answers. Candidates had little or no knowledge of how to make a roux sauce. The majority of candidates' descriptions of how to make a roux sauce would not have worked and results would have been inedible or lacked any quality. Vague accounts were evident or candidates decided not to respond at all, resulting in them not gaining four marks. Where candidates did gain some marks, these were awarded for melting fat, liquid being added together with seasoning and stirring over a heat until thickened.

Question 4 (c)

This was generally well attempted with an increase of nutrients as a popular response but these were not always named. Vitamin and mineral content was listed, 'Eatwell plate', part of a balanced diet 'and 'part of 5-a-day campaign' all appeared regularly as did 'reducing obesity'. Candidates clearly understood the role of fruit and vegetables in the diet.

Question 5 (a)

It was a positive change to increase this question to six marks as the more able candidates were able to gain the full marks because their designs clearly answered the specification and they could be credited for a clear design with detailed and relevant annotation. There was confusion as to what is meant by savoury with many designing a sweet product. Many candidates did not make it clear what the alternative ingredient was for the vegetarian, just stating that it had 'vegetables'(not named) or 'no meat', so it was good for vegetarians, whilst others stated 'tuna/chicken/cod' for a vegetarian. Most candidates scored a mark for producing a 'hand-held' product. Bars and pasties were the most common shapes. Many attempted to produce a more original product either through the shape or ingredients used. Lots of cheese, oats, named vegetables and pastry used for the 'energy and savoury' points. Responses produced generally were clear and easy to understand and mark.

It was apparent that candidates had referred to their four specification points, often ticking them off as they completed each one or putting a simple statement against each point. Some candidates did not gain marks as they just stated 'colourful', 'tasty' or 'named target group'. Also, candidates who did not draw a design found it difficult to explain the details of their design.

Question 5 (b)

It was disappointing to see that many candidates did not understand how CAD/CAM could be used in the design and manufacture of food products. This question differentiated well. A lack of understanding of CAD and CAM was reflected in many of the responses. Some candidates altered the question to discuss the advantages and disadvantages of CAD/CAM which was not what was required. Few candidates achieved Level 3 marks. Some candidates were awarded marks at Level 2 (3-4 marks) and included responses, for example; CAD – reference to packaging designs, questionnaires and costing. CAM – accurate and consistent finish of products and sensors monitoring weight and temperature. Unfortunately, too many candidates wrote a great deal that was unrelated to the actual question or did not attempt the question and gained no marks. A lack of depth of understanding was apparent.

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