

**Design and Technology: Food Technology**

General Certificate of Secondary Education **J302**

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

**Examiners' Reports**

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**June 2011**

**J302/J042/R/11**

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

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# Chief Examiner's Report

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 second examination series in the second 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:

A512 Electronics and Control Systems  
A522 Food Technology  
A532 Graphics  
A542 Industrial Technology  
A562 Resistant Materials  
A572 Textiles Technology

The overall performance and range of results for Unit 2 was similar to the last examination session – January 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. Performance however, across the subject specialisms is still varied.

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 G.

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.

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', 'discuss' and 'explain'. Many candidates did not score full marks on the 6 mark extended response or discuss questions, because they gave a list of unrelated points instead of developing one of these.

**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. Few candidates were able to do this really well, but most candidates did score two or more marks from the six available for this question.

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 the following subject specialisms:

A514 Electronics and Control Systems  
A524 Food Technology  
A534 Graphics  
A544 Industrial Technology  
A564 Resistant Materials  
A574 Textiles Technology

Candidates responded 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.

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.

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. Practice of previous questions is extremely valuable to help candidates become more confident.
- **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-type 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**

**Unit 1** – For this examination series of the Innovator suite entries were seen from the following subject specialisms:

A511 Electronics and Control Systems  
A521 Food Technology  
A531 Graphics  
A541 Industrial Technology  
A561 Resistant Materials  
A571 Textiles Technology

**Unit 3** – For this examination series of the Innovator suite entries were seen from the following subject specialisms:

A513 Electronics and Control Systems  
A523 Food Technology  
A533 Graphics  
A543 Industrial Technology  
A563 Resistant Materials  
A573 Textiles Technology

This examination series has seen portfolios for all subject specialisms being submitted both through postal and repository pathways. 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.

**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".

There was still some evidence this series of strong teacher guidance influencing candidate portfolios. Where this was evident it greatly hampered the candidate's ability to show individuality, flair and creativity, and therefore achieve the higher marks. Centres should avoid over-reliance on writing frames for candidate's work which, while assisting struggling candidates, clearly will affect the ability of able candidates to show their skills and thus gain high marks.

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.

It was noticeable that where candidates had scored the high marks, they had used specialist terms appropriately and correctly and had presented their portfolio using a structured format.

Centres need to ensure that all research work undertaken for units 1 and 3 is related to the chosen theme/starting point.

Centres need to be more vigilant when awarding marks for SPAG in the Critical Evaluation and allocate the available 8 marks accordingly.

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. 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.

### **Unit 1 – specific areas of importance**

It is considered good practice for teachers to encourage candidates to consider Eco-design and sustainability when making decisions and combining skills with knowledge and understanding, in order to design and make a prototype product. This knowledge base also acts as a 'spring board' to active learning for Unit 2.

It was evident through the portfolio that candidates struggled with the critical evaluation section of the marking criteria. Unit 1 requires that the candidate evaluates the processes and subsequent modifications involved, in the designing and making of the final prototype ONLY. Too many references were made to the performance of the prototype against the specification, which meant that candidates' marks were compromised. (Not applicable to Food Technology)

### **Unit 3 – specific areas of importance**

It was evident this session that candidates are producing either too little research or too much research as an appropriate response to a brief. Care needs to be taken here.

Centres are to be commended on the quality of the work seen in this unit and the balance candidates have been able to achieve between the designing and making criteria.



Centres need to ensure that candidates complete a quality product for Unit 3. The weighting of marks available for the Making section therefore, must be reflected in the time available for the candidates to complete a quality product.

## **Controlled Assessment**

### **Units 1 and 3**

It was encouraging to find that many Centres are now encouraging their candidates to organise their portfolio into separate sections according to the assessment criteria and present their work more concisely. However, some candidates are still submitting their portfolios without dividing them into the sections which obviously makes it more difficult to moderate the work. Some candidates had included work which was not required.

Portfolios should be labelled clearly with both the candidates name and number.

Some Centre's marks still required adjustments because the levels of response in the Assessment Objectives had been interpreted too leniently.

Once again, higher attaining candidates were awarded 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 completely adhered to.

There was an improvement in written evidence with regard to adaptations/modifications to the recipes being trialled during Designing but too often these 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 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.

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

## **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.

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.

## A521 Introduction to Designing and Making

### 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.

Too many Centres are not encouraging candidates to clearly label the chosen Theme/Product and the starting point at the start of the portfolio. Moderation is difficult if the focus of the portfolio is not clear. Candidates should also develop a new product that meets an identified aspect of current healthy eating guidelines.

### Cultural Understanding

Candidates had collected and presented information on how changes in society, including cultural issues have influenced the products available today but many do not relate the information to their chosen theme/product.

Portfolios included information on healthy eating but often the information was not related to healthy lifestyles. Sometimes this section could be presented a little more concisely.

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

A number of Centre's 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

The majority of candidates used a questionnaire to identify the needs of the user/target group/a nutritional focus but in some cases questions were irrelevant, graphs were not analysed and/or the Design Brief did not arise 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. Many candidates did not justify their choice of target group and/or nutritional focus. Some candidates chose more than one nutritional focus resulting in the application of the nutritional data becoming more difficult later on in the portfolio. Some candidates presented 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 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. 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, whilst others were far too brief and in too many cases, teacher led. There was more evidence this year of the design specification not reflecting the findings from research in the Creativity Section of the portfolio.

The use of proforma sheets for the planning and evaluating of products limited candidates' creativity and initiative and tended to result in repetitive responses.

Many candidates still 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 failed 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 candidate's 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. Some candidates failed to suggest any improvements to the product.

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 done well in many centres. 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 trial.**
- **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.**

## **Making**

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 but nutritional analysis of the final product was sometimes not included or was of a poor quality.

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, 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.

A few Centres did not give 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 (5 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.**

## A522 Sustainable Design

The overall performance and range of results was similar to June 2010. 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 questions 9, 13 and 16(c).

There were a number of 'no response' answers – this occurred mostly on question 6, 9 and 16(c). It was particularly disappointing to see candidates not attempting some of the questions in section A. Some candidates also circled 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, for example in the questions related to life cycle analysis and the nutritional importance of fruit and vegetables in the diet.

In section B, many candidates lost marks through poor exam technique. A considerable 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, not necessarily related to the question. There was little evidence of candidates structuring their answers to develop the points that they made, or reading through the script to check their answers at the end. Words were occasionally omitted which changed the sense of the whole answer and meant that marks could not be awarded.

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 17(e) candidates were asked to write from the manufacturer's point of view, many candidates either wrote from the consumer's point of view or simply described what was meant by chickens being free range.

The vocabulary of the candidates varied, many candidates fail to use specialist terms and therefore are unable to score the higher marks. An example of this was in question 18(e) where the majority of candidates referred to fruits and vegetables containing vitamins, but did not specify which vitamins.

Many students were also let down by their poor standard of English and incorrect use of terms. Spelling of key words, 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. A few candidates who answered this in correctly gave glass as their answer.

#### Question 2

The majority of candidates answered this correctly.

**Question 3**

There was a mixed response to this question. The majority chose fibre, but lots stated sugar and fat through misreading the question

**Question 4**

The majority of candidates stated the correct answer, those who did not get it correct used all of the alternative responses

**Question 5**

Many candidates did not know that composting raw vegetables was secondary recycling. Most candidates answered 'using a carrier bag more than once'

**Question 6**

There was a variable response to this question. Many recognised it had something to do with wheat but many thought it meant it contained wheat.

**Question 7**

The majority of candidates answered this question correctly.

**Question 8**

The majority gave a named use for the container eg to store food in, pencils, as lunch boxes. Some just said 'to store' and did not get a mark.

**Question 9**

There were very few correct answers. There were quite a number of no responses to this question. Many said it was just Fairtrade. There was a lot of repetition of the word ethical in answers and just rewording the question into a statement.

**Question 10**

The majority of candidates answered this question correctly. The most common correct answers were linked to nutritional information and cost. Where they did not they had not read the question and gave information which was required by law. The most common incorrect answer was ingredients.

**Question 11**

The majority of candidates knew we should be reducing the amount of salt we consume.

**Question 12**

The majority of candidates knew frozen food should be stored below -18°C.

**Question 13**

Very few candidates knew that calcium was required for heart regulation.

**Question 14**

There was a mixed response to this question.

**Question 15**

There were very few correct answers to this question. Candidates had to read the question carefully. There was also a lack of understanding of what a sustainable source is.



## Section B

### Question 16

The most able candidates were able to score two marks and most candidates scored at least one mark. The most common correct answer seen was related to being cheaper than buying the individual ingredients, other correct answers frequently seen included reference to lack of skills and the wide variety of products being available. Some candidates failed to gain marks because they made very vague statements such as 'cheaper', 'quicker'. These phrases need to be qualified to get the mark eg cheaper than buying all the individual ingredients.

Many candidates scored one or two marks. Identifying that product analysis is needed for making improvements, to ensure the product met the specification, suitable for the target group, appealing to the customer and sensory appeal were common correct answers. Some candidates failed to score some marks as they referred to three sensory qualities rather than separate points relating to product analysis. Frequent incorrect answers included making reference to checking ingredients for allergic reactions and reference to packaging. Some candidates failed to gain marks here because of their inability to express themselves clearly. Also there were a few with incorrect answers relating to the packaging.

Life cycle analysis had clearly not been taught in a large number of centres. Where it had candidates understood that it was about the product from conception to disposal. Candidates included in their responses reference to the sourcing of ingredients, materials, the production process and the disposal of the product at the end of the life cycle. The majority of candidates wrote about the development of a product from a production point of view. Some candidates scored marks for the reference to the packaging materials stating that they needed to be sourced from a sustainable source and that they were better if they could be recycled/were biodegradable. The way candidates structured their answers was often poor. Candidates clearly need to have opportunities to practice this type of question.

Most candidates scored 2 marks. Autumn and summer fruits were the most well known. Candidates in some cases stated fruits which would not be suitable for pies eg pomegranate or listed vegetables.

### Question 17

The majority got this correct. However there were a surprisingly high number of incorrect answers, usually foil indicating an unclear understanding between biodegradable and recyclable.

The whole range of marks was seen on this question. Most were able to identify three ways to make the packaging more environmentally friendly, but the reasons were less well articulated. Candidates need to make sure that they give different reasons for what they are saying. There was a lot of repetition with reference to recycling.

Many candidates did not recognise the symbol. Most wrote pie chart or nutrition symbol or Eatwell plate.

This style of question was answered much better than in previous sessions. Most candidates identified that the milk could be changed to skimmed/semi skimmed and double cream to single cream to reduce the fat. Changing the flour to wholemeal was another common correct response. Those who stated salt however generally failed to gain a mark for the reason. Where candidates lost marks was by giving duplicate answers in the reason section mainly with reference to the reduction of fat.

Most did not consider this from a manufacturer's point of view. The majority simply gave a description of free range. Other common incorrect responses were that free range eggs were healthier and better quality. There were a few candidates who identified 'luxury' as the key word

and then linked their answer to this. Other correct answers linked their answers to being able to promote the product.

Most scored one mark with milk, eggs and flour being the most common correct responses.

**Question 18**

The majority of candidates scored at least one mark with only the higher attaining candidates scoring full marks. References to refrigeration and only reheating once were the most common correct answers. Candidates need to read the question carefully so that they understand what is required. There were many answers which referred to the checking of date marks, this indicated a lack of understanding and careful reading of the question. There were many incorrect answers including, stating to re-cook instead of reheat foods, store correctly or store in a suitable place which were too vague.

This question was answered well by the majority of candidates. The most frequent correct answers made reference to making shopping lists, only buying and cooking the amount of food needed and planning meals.

Most candidates scored at least one mark on this question. However many candidates failed to score more than one mark because they used phrases such as 'cheaper' without qualifying the answer. More able candidates did give well reasoned answers and were able to score three marks. It was good to see the more able candidates making reference to the use of pesticides and some discussed air miles and transport of vegetables.

A well answered question with most candidates identifying methods of preservation or suggesting the selling or giving away of vegetables.

This question was not well answered by the majority of candidates. Most made very general statements about the nutritional benefits of fruits and vegetables eg they contain vitamins and minerals/they are healthy and were not specific about which vitamins and minerals. Many references to obesity but did not link this to fruits and vegetables being low in fat. The most common credited answers related to the mention of a balanced diet and 5 a-day.

## A523 Making Quality Products

### 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.

Too many Centres are not encouraging candidates to clearly label the chosen Theme/Product and the starting point at the start of the portfolio. Moderation is difficult if the focus of the portfolio is not clear.

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

### Designing

Most candidates had stated a design brief but in some cases this was not clear and concise and did not include a target group.

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 quality of design specifications varied widely. Some candidates produced very detailed design specifications whilst others were far too brief and in some cases, tended to be teacher led. The design specification should be structured to allow candidates to demonstrate a wide range of practical skills. Questionnaires, research, evaluation of existing products etc are not required for Unit A523

Most Candidates had produced a forward plan at the start of the Designing Section, but often this was superficial. A number of candidates had produced a forward plan for the whole portfolio. This is not required. The forward plan is only required for the Designing section.

The use of proforma sheets for the planning and evaluating of products limited candidates' creativity and initiative and tended to result in repetitive responses.

Some candidates chose products that showed little or no skills or only allowed them to show the same skills.

Most candidates chose four products to trial but too many failed to adapt or modify original recipes to be creative, innovative, fit their design specification and design brief, and to record and explain the proposed changes.

The changes seen were mainly changing shape, adding or removing flavourings – basic changes but not really original.

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

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.

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.

Detailed evaluations of ideas against the specification is 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 failed to make any reference to the specification. Other candidates had evaluated the making of the products rather than the product itself. A few candidates failed to suggest any improvements to the product.

Choice of the design proposal overall, was well done by a number of candidates. Candidates had clearly explained why the chosen design idea was being taken forward for product development and why other ideas had been rejected.

**A high level response to this section would involve:**

- **A design brief which is clear and concise and includes a target group.**
- **The chosen theme and design brief being analysed carefully to arrive at an appropriate design specification which includes a target group.**
- **Proposing a wide range of appropriate solutions – listing a range of ideas before choosing four ideas to trial.**
- **Producing a detailed forward plan for the designing section of the portfolio.**
- **For each product to be trialled – listing ingredients, adaptations clearly explained and justified to produce creative and innovative ideas. Nutritional analysis if this forms part of the design brief/specification, evidence of testing by three tasters, detailed evaluation against the specification, using results from testers as evidence, discussion of improvements taking into account users views.**
- **A design proposal at the completion of the designing section clearly explaining why the chosen design ideas is being taken forward to product development and why other ideas have been rejected.**
- **Using a wide range of appropriate techniques to present solutions.**

**Making**

Many candidates had taken one product forward for product development and carried out two modifications before deciding on their final product. However, many candidates did not make reference to the comments made when the product was originally trialled and further modifications were not always justified. In many cases suggestions for further developments did not reflect comments made by testers from the previous modification so the product was not developed according to user(s) views. There was some evidence of evaluation of each development in many candidates' portfolios but too often this failed to include how effective the changes had been. Lack of creativity was also evident in many portfolios. Once again, if nutrition forms part of the design brief and/or design specification, candidates are required to carry out nutritional analysis during product development and refer to the results during evaluation.

Costing of ingredients was evident. Costing is only required throughout development work and the final product.

Reasoned decisions, with reference to ingredients and equipment for the final product was done well in many centres.

Product Specifications were disappointing. Many candidates had simply just copied or had added a few points to their design specification.

Some candidates produced products that demonstrated a wide range of skills, but it was noticeable that many Centres are crediting 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.

Nutritional analysis if this forms part of the design brief/specification should be evident along with a flowchart for the making of the final product.

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:**

- **Carrying out two modifications before deciding on their final product. Modifications should take place as the product develops and each modification should be clearly explained and evaluated in detail. 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 five testers from the previous modification so the product is being developed according to user(s) views.**
- **Giving reasoned decisions for ingredients, equipment for the final product, applying relevant nutritional knowledge and understanding if this forms part of the design brief/specification.**
- **Designing a detailed product specification which should arise from the design specification and conclusions reached from development work including a labelled sketch/drawing of the final product.**
- **Producing a detailed flowchart which clearly shows all processes required for the making of the final product.**
- **Showing thorough understanding and application of the chosen nutritional focus, if this forms part of the design brief/specification.**
- **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**

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

Many candidates had evaluated the final product against the design specification rather than the product specification.

Comments when evaluating often lacked specific detail, stating the product had met the specification without any justification.

A few Centres did not give 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.**

## A524 Technical Aspects of Designing and Making

The examination paper was attempted well by the majority of candidates and a good range of marks obtained, although there were a small number of candidates who did not attempt any questions. The paper was accessible to the majority of candidates with marks ranging from 2 to 50+ all having time to complete. 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, quicker and easier without any qualification or justification.

The design question still caused concern as many candidates failed to show how they had met the specification points. The responses were particularly weak with little thought given to the concept of a new product.

In some cases the standard of the candidates written English led to low scoring answers. Candidates also wasted time and space writing out the question as an introduction. Other responses were very general without actually stating facts. Candidates need to be encouraged to read the question through carefully before writing their response. It was pleasing to see some candidates writing a brief plan before they answered the banded marked question. These were generally answered much better this year, however, some candidates were unaware of the meaning of words: function, discuss and explain.

### Comments on Individual Questions

#### Section A

##### Q1 (a) (i)

The vast majority of candidates gained full marks. The most common response was yeast.

##### Q1 (a) (ii)

This was generally answered well with most candidates gaining one mark. Popular responses were 'wholemeal flour', a named fruit or vegetable and dried fruit. Some candidates lost marks by writing 'brown flour'.

##### Q1 (b)

The function of strong plain flour was the least known answer as many candidates thought it was the raising agent. Some correctly stated bulk but very few related it to the gluten or structure.

In addition, most candidates correctly named improving the flavour, holding or binding for oil/fat. Candidates did not seem to be aware of the role of fat/oil in reducing staling or extending shelf life.

Many candidates provided the correct answer to the function of salt.

Some candidates lost marks on this question by either listing more than one function, one of which was wrong or by repeating the same function.

##### Q1 (c)

Generally, most candidates gained one mark. Most popular responses were linked to the process not stopping (24/7), and the continuous flow production providing a consistent quality. Some candidates lost marks for single word answers.

**Q1 (d)**

Very few candidates knew the answer to the fortification. There were a wide variety of responses with many thinking that it was related to the staling of bread. More able candidates were able to correctly identify an example of a product that is fortified and name the specific nutrient.

**Q1 (e)**

This was well answered with the most common correct answers being bread and butter pudding, croutons and breadcrumbs. Common incorrect answers included sandwiches and toast.

**Q2 (a) (i)**

This was well answered by candidates, common responses were 'children' as the target group then linking their reason to the 'monkey' cartoon on packaging.

**Q2 (a) (ii)**

The vast majority of candidates gained a mark showing a good level of understanding of dietary groups.

**Q2 (b)**

Candidates were usually able to gain at least one mark for this question. The most common answers related to 'no time for breakfast' and 'eating on the go'. Incorrect answers were often a repeat of previous statements or failing to qualify 'quicker', 'faster', and 'easier' or they thought cereal bars were cheaper than buying traditional cereals.

**Q2 (c)**

The majority of candidates gained at least one mark for this question. They usually correctly identified that breakfast is the first meal of the day and provides energy. The higher ability candidates were able to make links to concentration levels, reduction in snacking and the provision of nutrients other than fibre.

**Q2 (d)**

This question provided a clear differentiation among candidates. Overall, responses were disappointing as answers were of a poor standard. Many candidates knew that fibre was linked to bowel movement but had no further understanding. The most common mark was for 'preventing constipation'. A common misconception was that dietary fibre actually breaks down food and is responsible for digesting food. In order to achieve marks for this question candidates needed to demonstrate a structured and detailed understanding. No candidates drew diagrams to help them describe the process.

**Q3 (a) (i)**

This was well answered with the most common response being 'minced beef'.

**Q3 (a) (ii)**

Most candidates knew that growth and repair were a function of protein in the diet so full marks were awarded. However, some thought that it was for 'bone growth'.

**Q3 (a) (iii)**

The function of iron was poorly answered with many thinking it was for 'bones'. It was disappointing that some candidates who knew it was related to blood failed to gain a mark for vague responses as 'healthy blood/helps blood'.

**Q3 (b)**

Candidates gave mixed responses to this question. They knew that it is important not to refreeze after thawing as this would increase bacterial growth. However, they often failed to expand this statement into why this process would lead to bacterial growth. Many candidates simply gained one mark for 'encourages bacterial growth' or 'causes food poisoning'.



**Q3 (c)\***

Candidates made a good attempt at this question. Answers were generally well presented in text with structured prose and a varied number of points. Weaker candidates often repeated the question and wrote a bullet pointed list or short sentences mentioning 'little preparation' and 'easy to store'.

The higher ability candidates were able to provide a range of reasons which also included 'no waste', 'lack of skills', 'wide varieties', 'special diets', and 'portion sizes'. It was pleasing to see that some candidates wrote out a plan for their answer, and it was evident those candidates who had been taught to use linking words in their discussions enhanced their responses.

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.

**Section B**

**Q4 (a) (i)**

There was minimal understanding of the word 'function' with many candidates failing to gain marks because their responses were related to nutrients, methods of cooking or food hygiene. Candidates will have described the function of ingredients in their controlled assessment but they did not seem to be able to apply this to an examination paper.

**Q4 (b) (i)**

The majority of candidates stated 'meat' or a type of meat to gain the mark.

**Q4 (b) (ii)**

More able candidates gained marks easily, relating high risk to a food high in moisture and protein that readily supports bacterial growth. Weaker candidates provided muddled answers not relating to high risk foods but to food poisoning in general. The most common answer was 'food that is likely to give you food poisoning if not stored/cooked/prepared correctly'.

**Q4 (c)\***

Candidates made a good attempt at this question but tended to find it harder to gain marks than in 3c. Candidates were aware of organic food not using pesticides and being free range but this was the extent of their knowledge. Some confused it with fair trade foods, additives and vegetarianism. Many referred to chemicals with no indication that they understood what they were or why they were used. There were vague references to organic foods being more 'healthy or expensive'. Many responses were not concise with a long introduction and a lot of repetition. There were some excellent responses where candidates showed a detailed understanding of chemical pesticides/fertilisers and their effect on the environment.

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.

**Q5 (a)**

A limited number of candidates gained full marks by meeting the points in the design specification and showing how this was achieved in a new product. A substantial number of weak responses were evident. Designs were extremely variable and it was obvious that candidates did not read the question or the design specification points. Some candidates incorrectly designed desserts, soup, or sandwiches. Many candidates drew a design and then made up their own specification points of 'attractive' 'colourful' 'textures' or provides 'protein/carbohydrates/fibre'. A large majority of candidates failed to name their product or state what their product was. Some candidates designed a good product and labelled the ingredients

but failed to make any statement relating to 'low budget', 'appealing to a wide age range', or 'how it was suitable for reheating'. Some candidates merely ticked the specification points to show they had been met. Many did not draw their design idea but merely wrote a few notes so it was not clear to the examiners what the design was or which specification points they had met. Candidates were not aware that pastry, salads and Yorkshire pudding could not be successfully reheated in a microwave.

It was very disappointing to see such poor, unimaginative designs as many candidates had undertaken a controlled assessment on ready meals.

**Q5 (b)**

Candidates often misread the question and provided answers relating to why '5 a day is good', rather than how the manufacturer would benefit. 'Government guidelines' and 'a wider market potential' were popular correct responses. Few candidates gained two marks here.

**Q5 (c)**

This was generally well answered. The most common correct answers related to 'lids on pans' and 'one pot meals'. Candidates often lost marks for failing to be specific enough in their answers, for example, stating 'use steamer' instead of steaming several vegetables/use a tiered steamer'. Common incorrect answers included 'eating raw foods', 'eating ready meals', 'BBQ' and grilling'.

**Q5 (d)**

Candidates were generally able to gain two out of the four marks for 'suiting the target group', 'meeting the specification', 'making improvements' or 'making a profit'. Some candidates wrote about different types of sensory testing and others related it to food safety tests and so failed to gain any marks.

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