AQA

ASSESSMENT and
QUALIFICATIONS
ALLIANCE

General Certificate of Secondary Education

Design and Technology:
Food Technology (3542/3552)

Examiners' Report

2005 examination – June series

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Examination Paper

General

This was the third year of the specification and evidence from both the coursework and the examination demonstrated that candidates are enjoying the subject and gaining success from what they are doing. Increasingly teachers are using the support materials produced annually to develop their teaching and are more accurately applying the AQA standards to their assessment of coursework and preparation for the written examination.

The paper offered a varied selection of questions relating to the research context of Milk Processing and the design theme of Cold Desserts.

This year the majority of candidates had been entered for the appropriate tier. The majority of candidates also attempted all the questions on the paper. It was, however, a concern to see questions not attempted by some candidates, on some occasions from whole centres. This appears to indicate that some aspects of the specification are not being fully covered during and that some centres are teaching just to the preparation sheet. AQA apologises for the error with the apostrophe in the Foundation Tier papers Question 1 (c)(i), but would reassure centres that this did not affect any candidate.

On the whole spelling and grammatical skills were slightly improved this year and most candidates were able to access the questions. As in past years, however, where candidates did not score well it was because the question had not been read fully or misinterpretation. Using specialist terminology rather than generic, simplistic terms is a particular area in which foundation tier candidates need to be encouraged if they are to access the higher range of marks.

The overall quality of candidate design responses was high with many candidates showing a depth of knowledge particularly in the design process, food safety and hygiene requirements. This year candidates have demonstrated very detailed annotation of sketches and greater awareness of the needs of a test kitchen. Unfortunately candidate's knowledge of related nutrition, functions and characteristics of ingredients remain weak areas across all tiers.

Full Course – Foundation tier

Question 1

(a) Very well answered. Most candidates were able to give four correct responses, but some only gave vague responses such as "carton" or "tinned" instead of specific names.

(b) Generally well answered, although a few candidates repeated types of milk.

(c) (i) Good responses on the whole with most candidates giving "survey" or "questionnaire".

(ii) Few candidates gained full marks, as clear descriptions were not given.

Question 2

(a) Most candidates gained high marks but some marks were lost by no reference being made to the information in the table.

(b) (i) Very well answered.

(ii) Most candidates gained full marks but some failed to explain clearly why children would need a drink high in energy.

Question 3

(a) Most candidates gained high marks through producing clear, well annotated sketches. Some candidates gave repetitive answers or did not refer to the design criteria.

(b) (i) Generally well answered. Most candidates gave examples from their design idea and used knowledge of children's needs to explain why the chosen idea was suitable.

(ii) Most candidates gained high marks. However, some vague answers like "Stop it going off" while acceptable as a simple point, displayed a lack of detailed knowledge.

(c) Most candidates were able to explain valid reasons for testing products before producing similar on a large scale.

(d) A mixed response to this question with many candidates gaining high marks for detailed planning and logical sequences but other candidates showing lack of understanding, simplistic and often inaccurate methods for making.

Question 4

(a) Many candidates gave vague responses. Where high marks were gained it was for naming of specific ingredients and giving detailed reasons for how ideas meet consumers' needs. Less able candidates often gave vague response such as "fruit" or "healthy" without clarification.

(b) Well answered, with most candidates gaining full marks by good use of sketches and notes that included all ingredients identified in the question. Some candidates did not take the opportunity to sketch the design as requested but just used prose to describe their ideas.

Question 5

(a) (i) Very poorly answered, with few candidates showing understanding of standard components. Other than saving time few correct responses were given in terms of advantages.

(ii) Generally well done. Most candidates gained full marks. Many less able candidates referred to ingredients such as "egg" or "milk" instead of standard components.

(b) The examiners saw some very poor responses to this question. Candidates gave vague answers and could not show more than a very basic knowledge of functions of ingredients.

(c) (i) A pleasing result with most candidates gaining high marks. Some gave general points relating to the functions of packaging instead of suitability of the material given.

(ii) Generally well answered with most candidates gaining full marks. However, some candidates gave only "put litter in the bin" without explaining why.

Question 6

Well answered with the majority of candidates gaining full marks.

Question 7

(a) (i) (ii) A mixed response overall. High ability candidates answered this well with a logical approach, clear knowledge and an understanding of different food hazards and control. Less able candidates often did not grasp what a food hazard is although they could give general responses relating to their control.

(b) (i) (ii) A good response overall with many candidates showing knowledge of safe storage conditions and reasons underlying.

(c) A poor response overall, with few candidates showing knowledge of how CAM is used to ensure the safety of milk based desserts. Many responses were vague or made limited references to temperature.

Question 8

Generally well answered. Many candidates gained high marks although some responses referred to hygiene and safety rules rather than working practices on a food production line.

(a) Good answers showed knowledge of hygiene training and the need for high levels of personal cleanliness.

(b) Many candidates gained at least two marks by referring to the cleanliness of surfaces and equipment but few other examples were given.

(c) Less well answered although many candidates correctly referred to the dangers associated with the use of electrical or hot equipment.

Full Course – Higher tier

Question 1

(a) (i) This question was well answered with the majority of students able to name a method of research.

(ii) Most candidates could explain the procedures for carrying out the research, although a few candidates gave only a list of questions to be asked. The analysis of results or conclusions was rarely mentioned as a follow up to gathering the research.

(b) (i) Skimmed and soya milk were correctly identified by the majority of candidates

(ii) This was well answered. Responses showed up to date knowledge of consumer trends. The choice of milk by candidates was supported by strong reasons for change in popularity. Awareness of health benefits, lower in fat, more widely available and response to obesity increase were the most popular correct answers.

(iii) Ultra Heat Treated / Treatment was identified by the majority of candidates. Almost all candidates gained full marks; those who did not often gave "ultra high temperatures" as their response.

(iv) The knowledge of advantages for using UHT was strong, especially the correct time and temperature for treatment and a six month shelf life. However, some candidates are not aware that once UHT milk is opened it has to be refrigerated at this point.

(v) The majority of candidates gained full marks on this question**.**

Question 2

(a) All candidates correctly choose one of the four stages, but often the control check given was a repeat of the words in the box and little interpretation was given.

(b) Many candidates were able to explain the reasons for control checks – 'maintaining a quality product' and 'prevention of food poisoning' being the most popular responses.

Question 3

(a) The majority of candidates produced high quality sketches of desserts with good annotation and clear information. Virtually all candidates sketched two different products. Cream was a popular choice for the milk product, closely followed by ice cream whilst cheesecake, kulfi and éclairs were popular products. It was pleasing to see that most candidates paid heed to the criteria for meeting cultural needs and selected appropriate products.

(b) (i) Few candidates could identify how the actual school children's needs could be met with reference to nutritional value of milk products. However, most candidates could identify the milk product used in order to gain a mark.

(ii) Most candidates could relate individual ingredients to a specific country in order to gain full marks. Less successful answers were often a repeat of the original design criteria.

(c) The majority of candidates scored only two or three marks for this question. Responses were often just a repeat of the given design criteria with no extra detail being given.

(d) There continues to be a variety of presentation styles for explaining the making of the product. Candidates on this tier responded with accurate, logical and detailed explanations with many

gaining full marks. It was pleasing to see the inclusion of quality control checks and feedback being included.

(e) This question was generally well answered although some of the candidates referred to industrial practices rather than the test kitchen.

Most candidates were aware of the wider hygiene and safety training; such as reporting illnesses and HACCP systems.

Question 4

(a) CONSUMER 1 – few candidates could give a specific 'named' ingredient, but tended to generalise, e.g. 'add fruit'.

CONSUMER 2 – this was answered in better detail especially the use of lower fat products to reduce the fat content of the cheesecake or the addition of a fruit layer to increase vitamins. A common misconception often used was that margarine is healthier because it has less fat than butter.

(b) The majority of candidates could produce a high quality sketches following the given criteria. Descriptions were well answer and most candidates gained full marks.

Question 5

(a) (i) Few candidates gave answers relating to 'setting', 'coagulation' or the need to keep the proportions to enable this to happen.

(ii) Many candidates cannot identify 'richness' or to 'prevent the formation of gluten strands', preferring to use the term binding which is incorrect. However, most candidates gave correct answers for adding flavour and colour.

(iii) Few candidates showed understanding of modified starches. Instead answers were just guessed at and frequently were incorrect.

(iv) A number of candidates could relate soya milk to lactose intolerance, but frequently answers were obviously guesses, e.g. lower in fat and long life.

(b) (i) This question was answered correctly by most centres. However, in some instances candidates from whole centres gave incorrect responses, indicating that some centres had not taught about standard food components during the course. A large number of candidates simply thought that standard components were ingredients.

(ii) This was well answered by the candidates who had studied this topic. Popular answers included knowing that components are expensive, there is difficulty controlling the quality and difficulties with delivery, storage and reliability of retailers.

Question 6

(a) This was almost always answered correctly. Most candidates could refer to allergy problems and identify specific ingredients that could cause health problems and therefore need to be avoided. Many responds included the legal requirement to show a list of the ingredients used.

(b) (i) (ii) The majority of candidates gained full marks on these questions and could accurately identify appropriate ingredients.

(c) (i) Most candidates gave correct responses related to prevention of burning, sticking and thorough mixing of ingredients.

(ii) Most candidates gained at least one mark on this question for indicating knowledge of bacterial growth but in some instances candidates referred to the "killing" of bacteria rather than the slowing down.

(iii) The majority of candidates correctly identified the need to soften the ice cream for ease of serving. However, a common answer was to "let it melt".

(d) (i) (ii) Most candidates gained full marks and could accurately identify stages where data logging takes place and could give valid reasons for keeping a log of temperatures.

(e) The majority of candidates gained full marks and could give advantages for using an electric ice cream maker. The most popular answers were consistency, quality control and use for smaller portions leading to reduced wastage. It was pleasing to see candidates using some specialist terminology.

Question 7

(a) This was well answered by most candidates. Responses given used correct terminology but weaker answers lacked the detail expected at higher level. Candidates showed good understanding of the control of hazards and often gave detailed temperature ranges.

(b) Most candidates gained at least one mark in this question with answers relating to bacterial contamination but only the more able included details of milk being a high protein food or the presence of moisture as being key elements associated with high risk foods.

(c) This was extremely well done with detailed and knowledgeable answers given at all levels.

(d) The majority of candidates scored high marks on this final question and were able to structure their answers to include both packaging and labelling information. Occasional incorrect responses included details of packaging materials or failure to link answers with the danger of food poisoning.

Short Course – Foundation tier

Question 1

(a) Most candidates were able to identify four different types of milk sold in the chilled and non chilled areas of a supermarket.

(b) The majority of candidates correctly identified two milk products.

(c) (i) The most popular method of research identified was a questionnaire and most candidates scored a mark for this answer.

(ii) Only few candidates were able to give a detailed answer describing how their chosen method of research was carried out. Candidates who had chosen a questionnaire did not always say who would be questioned, or the types of questions that would be asked. A large number of candidates did say that the results would be analysed but did not refer to how the results could be used when developing a product.

Question 2

(a) (i) Most candidates chose either the skimmed or semi-skimmed milk – both of which were given credit.

(ii) Whilst most candidates were able to make comments about the fat, protein and calcium content of the milks, few actually made a solid reference to the figures on the chart as a comparative point of reference and hence missed out on the full marks available.

(b) (i) Most candidates correctly identified whole milk as being the most suitable milk for a high energy drink, though semi skimmed milk also gained a mark.

(ii) Again, few candidates actually referred to the figures on the table and answers were often vague, with little reference to why a higher amount of fat may be valuable for children or why a higher amount of calories would mean more energy. Some candidates did mention calcium and protein levels in the milk and were able to qualify the reasons for their importance in the diet of a child.

Question 3

(a) Most candidates were able to sketch two different design ideas reflecting the criteria given at the beginning of the question. However, there are still some who lose valuable marks on this question by sketching two products that are basically the same – a lemon cheesecake and a chocolate cheesecake are simply variations of the same product. As in previous years, the quality of the sketches varied greatly, but it was good to see that virtually all candidates attempted annotation and that many tried to link their sketch visibly with the given criteria.

(b) Many of the given reasons were simplistic, but did show a basic understanding of the needs of children. The majority of candidates were able to identify the need for popular ingredients like chocolate or ice-cream and the fact that the dessert would look appealing, either through its colour or decoration. Some candidates did mention that their dessert would be easy to portion and to eat, but few made reference to the nutritional value and those that did made very generalised statements like "fruit is healthy".

(a) Most candidates were able to identify three of the main ingredients for their chosen product. However, few were able to give specific and accurate functions of the ingredients and it was evident that a large number of candidates had not made full use of the preparation time prior to

the exam itself. Popular answers referred to "adding colour" or "to give flavour", but few mentioned more specific functions like "setting", "thickening" or "aerating".

(d) The majority of candidates attempted this part of the question and most managed to achieve a fairly simple method of making for their product. However, it was clear to see that a large number of candidates did not have a thorough knowledge of the method, and many omitted cooking temperatures, cooking or cooling times and precise details that would have gained the higher marks. Answers where a logical sequence of making was evident, clear instructions were given and a good awareness of personal and kitchen hygiene was shown gained the higher marks.

Question 4

(a) Most candidates were able to identify ingredients that could be added to a yoghurt to create a different flavour or texture. Reasons why their chosen ingredient would be added were rather disappointing with most candidates simply stating "to give a different flavour" or "to add a different texture", rather than using descriptive words like "crunchy texture", "fruity flavour", "chunky", "spicy" etc.

(b) (i) Many candidates simply stated that a blender was "easier than doing it by hand". Few answers really showed an awareness of the advantages of it being portable, easier to use for smaller quantities, having speed controls, and the fact that the user can control the consistency required. Answers were often vague, with no real detail.

(ii) Most candidates correctly identified the advantages of using a computer to record temperatures, with "more accurate" and "information can be saved and compared" being popular answers.

Question 5

(a) The majority of candidates were able to relate appropriate quality checks to the foods named in the chart, the most popular answers being linked to checking date-marks, checking for damaged packaging and checking for freshness of the fruit. Many candidates scored full marks on this question.

(b) Few candidates gave a full answer relating to the advantages of using standard components in food production. Answers were simplistic and not always qualified. A popular answer was "it is cheaper", but in order to get the maximum mark available, the candidate should then have gone on to say that it can be cheaper than buying all the individual ingredients needed to make the whole product.

(c) The majority of candidates were able to show the use of the three ingredients to decorate the top of the cheesecake effectively, using the diagram and adding a description and were able to gain full marks. However, misreading of the question meant that some candidates chose to use the chocolate and the cream in the base or the main body of the cheesecake – not the top – and these candidates could not access the maximum marks.

(d) (i) Unfortunately, few candidates were able to gain maximum marks for this part of the question, as answers were very vague and rarely mentioned the word "set" or "coagulate". Very few answers related to the fact that a correct proportion of egg to milk is needed to enable the mixture to set.

(ii) Too many candidates still make reference to fat being a "binding" agent when making pastry, which gained no marks. Popular, correct, answers were "to give flavour" or "to give a crumbly texture".

Question 6

(a) Unfortunately, a large number of candidates made no specific reference to why a certain material would be used for the packaging, or mentioned the properties of the material which would make it suitable for the product. Many candidates were able to give generic answers relating to the function of packaging in general, as opposed to the specific reasons of suitability for the material, such as "moisture proof"," lightweight ", "flexible" or "easy to print on" – meaning that full marks could not be accessed.

(b) The majority of candidates were able to explain the meaning of the symbol and gained full marks.

Question 7

(a) (i) This part of the question was generally well answered, with most candidates being able to give ways in which a food worker could carry out personal hygiene practices.

(ii) Some candidates confused the wording of the question and wrote down kitchen safety rules as opposed to kitchen hygiene rules. Others, unfortunately, wrote down a continuation of personal hygiene rules and therefore gained no marks. It was evident that some candidates were not clear as to what the term "kitchen hygiene" actually means.

Answers were fairly simplistic, but many candidates were able to identify that food could become contaminated by bacteria or physical contaminants and that food could become unsafe to eat.

Short Course – Higher tier

Question 1

(a) (i) This question was well answered with the majority of candidates able to name a method of research. A minority of candidates incorrectly identified "market research."

(ii) Most candidates could explain the procedures for carrying out the research although a few candidates gave only a list of questions to be asked. The analyses of results or conclusions were rarely mentioned as a follow up to gathering the research.

(b) (i) Skimmed milk was most frequently identified and occasionally soya milk.

(ii) The choice of milk by candidates was supported by strong reasons for change in popularity. Awareness of health benefits, lower in fat, more widely available and response to obesity increase were the most popular correct answers.

(iii) Ultra Heat Treated / Treatment was identified by the majority of candidates. Almost all candidates gained full marks. Those who did not often gave "ultra high temperatures" as their response.

(iv) Knowledge of the advantages for using UHT was strong, especially of the correct time and temperature for treatment and a six month shelf life. However, some candidates are not aware that once UHT milk is opened it has to be refrigerated.

Question 2

(a) All candidates correctly choose one of the four stages. Often the control check was a repeat of the words in the box and little interpretation was given.

(b) Many candidates were able to explain the reasons for control checks – maintaining a quality product and prevention of food poisoning being the most popular responses.

Question 3

(a) The majority of candidates produced high quality sketches of dessert with good annotated and clear information. Virtually all candidates sketched two different products. Cream was a popular choice for the milk product, closely followed by ice cream whilst cheesecake, kulfi and éclairs were popular products. There are candidates who are not aware of the use of cream cheese and just refer to cheese in the annotation.

(b) (i) Few candidates could identify how the actual school children's needs could be met with reference to nutritional value of milk products. However, most candidates could identify the milk product used in order to gain a mark.

(ii) Few candidates could relate individual ingredients to a specific country in order to gain full marks. Answers were often a repeat of the original design criteria.

(c) There continues to be a variety of presentation styles for the explaining the making of the product. Generally the order of carrying out the method was logical, but frequently lacked depth and detailed explanation. There was little reference to quality control checks, HACCP, hygiene, tolerances and feedback loops. Few candidates scored full marks.

(d) This question was generally well answered although some of the candidates referred to industrial practices rather than the test kitchen. Some are not aware of the wider hygiene and safety training; reporting illnesses, HACCP systems, but could give basic hygiene rules.

Question 4

(a) CONSUMER 1 – few candidates could give a specific 'named' ingredient, but tended to generalise, e.g. "add fruit".

CONSUMER 2 – this was answered with better detail, especially the use of lower fat products to reduce the fat content of the cheesecake or the addition of a fruit layer to increase vitamins.

(b) Most candidates could produce a high quality sketch following the given criteria. Descriptions were clear and full, gaining full marks.

Question 5

(a) (i) Few candidates gave answers relating to 'setting', 'coagulation' or the need to keep the proportions to enable this to happen.

(ii) Many candidates were not able to identify 'richness' or to 'prevent the formation of gluten strands', preferring to use the term binding which is incorrect.

(iii) Few candidates showed understanding of modified starches. Many answers were obviously guesses and, therefore, frequently were incorrect.

(iv) A number of candidates could relate soya milk to lactose intolerance, but frequently answers were guessed at, e.g. lower in fat and long life.

(b) (i) This question was often answered incorrectly, indicating that some centres had not taught about standard food components during the course. A large number of candidates simply thought that standard components were ingredients.

(ii) This was reasonably well answered by the candidates who had studied this topic. Popular answers included knowing that components are expensive, difficulty controlling the quality and difficulties with delivery and storage.

Question 6

(a) This was almost always correctly answered. Most candidates could refer to allergy problems and identify specific ingredients that could cause health problems and therefore need to be avoided.

(b) (i) Most answers reflected the correct equipment. A few candidates had missed the word 'small' in the question and identified larger electrical items such as cookers and freezers.

(ii) This was well answered in terms of speed, consistency and reduction of human effort.

(c) (i) Many candidates are not aware of the wider range of answers that could be given. The most popular answer was 'bacteria being dormant' although a few candidates still think that bacteria are killed during freezing.

(ii) This question rarely scored full marks. Many candidates were not aware of the use of data logging despite this being clearly indicated on the preparation sheet.

Question 7

Credit was given for repeated answers as some reasons are suitable for most packaging materials. A number of candidates misunderstood the question and identified the use of the product, rather than the material.

Coursework

General points

The following points are intended to support teachers as they look for ways in which they can raise standards, reduce the quantity of folder work, manage time and motivate candidates.

1. **Administration**

   - Centre Mark Sheets were generally submitted on time. Centres with twenty candidates or fewer must ensure that all work is sent with the Centre Mark Sheets to the moderator by 5 May.
   - Too many centres were very late submitting sample holding up the moderation process.
   - There was a significant increase in matrix errors.
   - There was an increase in number of centres where:

     Centre Declaration sheets were omitted
     Candidate numbers omitted from Candidate Record Forms (CRFs)
     CRFs not signed
     Parts of CRFs missing
     One or more of the requested folders were missing from sample.

2. **Candidates' work**

   - Overall the size of folders was much reduced.

   - Information on CRFs was much better and information more relevant. with qualitative comments.

   - The majority of candidates understand the design process.

   - Better design briefs are being used, tailored to the needs and interests of candidates.

   - More evidence of the use of writing frames has been seen and in the majority of centres these have been appropriate. However, in centres they have been used as a teacher led approach to designing. This has restricted candidates in their creativity and individuality by reducing the level of challenge, particularly for the more able.

Designing Evidence

- Where candidates are given a complex brief or a detailed scenario they usually have difficulty interpreting what is required. Similarly where briefs are worded specifically towards the 'meal on the plate' these reduce the opportunity for product development and in particular industrial practice.

- The quantity of research is beginning to reduce but there are still too many candidates who are continuing to produce far too much in this area. The main impact of this is to reduce time for more crucial aspects of designing and making.

- Often poor use of page space, lack of clarity and poor analysis occur when a disproportionate amount of time has been devoted to research. Candidates lose sight of the brief and are unable to use the findings from research to inform their specification and design ideas.

- There has been less evidence of candidates being given a 'shopping list' of research methods but unnecessary and unproductive research activities are still evident e.g. letters, long list of products sold in the supermarket, copied sections from books about nutrition, cake making methods etc and information from the internet about dietary conditions, packaging etc.

- Where product analysis is used well it is closely linked to the design brief and for the more able candidates to the product which they have chosen to develop. In too many cases, candidates have no idea why they are carrying out the product analysis and how they can use results.

- Questionnaires continue to be a popular method of research and for many candidates are a good way to demonstrate the use of ICT. However, results often take up a lot of space in folders, conclusions are not drawn and therefore this cannot be used to inform further aspects of the design work.

- Specifications are generally well understood and used. Design criteria have certainly improved this year. However too many candidates fail to produce specifications against which they can evaluate the development of their product as it proceeds.

- Where candidates have followed a very teacher led / formulaic approach initial specifications / criteria are often the same which restricts individuality and creativity.

- Design ideas are a strength and increasingly candidates are adding annotation to suggest ways they might develop these ideas. In centres where projects are 'teacher led' all candidates often make identical design ideas which is very restricting particularly for more able candidates. Where this occurs teachers are generally over generous in their assessments.

- Many candidates are including unnecessary and/or irrelevant work as part of their evidence for design ideas. Plans for making design ideas and functions of ingredients are not required. Nutritional analysis is only required if the initial specification has made some reference to nutritional requirements of the product.

- Development has improved in many centres however for some candidates this is not recorded in folders. More able candidates should aim to use more challenging development activities rather than simply changing or modifying an ingredient or flavour. However there are still too many centres not teaching and addressing development sufficiently.

- It has been pleasing to see lower quantities of nutritional printouts.

- Star diagrams continue to be the most popular method used for sensory analysis. However, many candidates neither know why they are being used nor how they can use the results.

- The quality of industrial practices and systems and control is very good generally however there is still a need in some centres to ensure that candidates apply these rather than giving a theoretical explanation of what they are and how they are used in industry. The same applies to the functions of ingredients.

- Where packaging and labelling information is recorded well, candidates apply the knowledge to their own product. Where it is done less well candidates give long explanations and examples of packaging without ever referring to their own product. Candidates working to design briefs, which have a 'meal focus', find it difficult to include relevant packaging and labelling information.

- The use of ICT continues to be a strength.

Making Evidence

Overall the quantity of 'making' which candidates carry out has increased and there is improvement in the quality of CRFs. However there are still a significant number of centres where the assessment of making is over rewarded and candidates are making stand alone products which fit better with a 'Home Economics' approach rather than a 'Design and Technology' approach. The following points are intended to clarify and support teachers and candidates as they consider what to 'make' and how to provide evidence of the quantity and quality of their making.

- Sufficient time needs to be dedicated to making activities – less time spent on research would assist centres to achieve this. Teachers need to ensure that time devoted to 'making', matches the two thirds weighting of 'making' within the assessment of coursework.

- Making can take a range of different forms – see Update Booklets.

- All candidates should be attempting some development, although for lower ability candidates this might be quite simple.

- Sensory evaluation is quite rightly included as a making activity however the quality of the methods used is often very poor and the results arise from subjective rather than objective evaluations. Candidates need to use the results to inform the next stage in their making.

- Making several design ideas is a useful way to demonstrate a range of different skills however one or two ideas need to be selected for development. There are still too many stand-alone practicals which are awarded high grades with no development.

- There was a lack of evidence of small-scale experimental type work where only part of a product was made and tested. There was a lot of whole product modification work, in some cases this was quite excessive and must have been monotonous and expensive for the candidates.

- Candidates may decide to use standard components at different stages of the making process. However the entire use of standard components reduces a making activity to an assembly activity.

- Average or lower ability candidates often use standard components as part of the development of their product. However more able candidates should identify how and why a manufacturer would select and use standard components. These candidates may decide to include a further making activity at the manufacturing stage by remaking their final prototype using standard components.

- In order to assist moderation there needs to be clear evidence of making – this would normally appear in the folder supported by evidence on CRFs. Often there was insufficient evidence of making in folders.

- Photographs are not compulsory but this year has seen a significant increase in the number and quality of digital images which has proved very helpful to moderators as they judge quality.

- Information provided in the 'making box' has been most helpful when it has been completed well and by the teacher. This has enabled moderators to judge the quantity and range of making and compare this evidence with that in the folder. Where candidates themselves have completed this box it has often been difficult to follow and decipher. However there still remain discrepancies between what is written in the 'making' box and what appears in the folder.

- Teachers have begun to give more qualitative statements on CRFs and are beginning to use words such as excellent, very good, good, and satisfactory to differentiate between candidates making ability.

- The vast majority of centres had applied the AQA standard correctly.

Recommendations:

- In order to sustain motivation, consider the timing of project work.

- Reduce folder work to approx 15 to 20 sides of A3 for the full course and 10 for the short.

- Encourage candidates to use and organise the space on pages well.

- Where a teacher led approach is used ensure there is sufficient opportunity for candidates particularly the average and above to produce individual work with creativity and flair.

- Writing frames not work sheets should be used.

- Proformas written for other awarding bodies are not relevant or appropriate to this specification.

- Aim to reduce the amount of time and space taken up by research.

- Reduce the number of time plans / flow charts – only one detailed plan for manufacturing is required.

- Where sketches for design ideas are used these should be well annotated.

- Ensure candidates know what a star diagram is used for and how the results can be interpreted.

- Ensure that knowledge and understanding is applied not just copied from books e.g. HACCP, functions of ingredients, packaging information, manufacturing processes.

- Encourage candidates to include product analysis at a point in the project where it is relevant not necessarily at the beginning.

- Link product analysis to the design brief and to the product being developed.

- Where supply staff and non specialists are used to teach the course they need to have access to all the support materials and if possible some training. This will prevent too much unnecessary work being presented for which candidates can gain little credit.

Mark Range and Award of Grades

Full Course

Foundation tier

Component	Maximum Mark (Raw)	Maximum Mark (Scaled)	Mean Mark (Scaled)	Standard Deviation (Scaled)
3542/F	125	140	73.1	19.6
3542/C	95	210	120.9	36.1
Foundation tier overall 3542	--	350	194.04	47.73

		Max. mark	C	D	E	F	G
3542/F boundary mark	raw	125	86	74	62	51	40
	scaled	140	96	83	69	57	45
3542/C boundary mark	raw	95	60	47	35	23	11
	scaled	210	133	104	77	51	24
Foundation tier scaled boundary mark		350	222	184	146	108	70

Higher tier

Component	Maximum Mark (Raw)	Maximum Mark (Scaled)	Mean Mark (Scaled)	Standard Deviation (Scaled)
3542/H	125	140	86.9	17.5
3542/C	95	210	177.8	25.7
Higher tier overall 3542	--	350	264.67	37.4

		Max. mark	A*	A	B	C	D	allowed E
3542/H boundary mark	raw	125	100	91	82	74	57	-
	scaled	140	112	102	92	83	64	-
3542/C boundary mark	raw	95	95	83	71	60	47	-
	scaled	210	210	183	157	133	104	
Higher tier scaled boundary mark		350	318	281	248	216	168	144

Provisional statistics for the award
Foundation Tier (32110 candidates)

	C	D	E	F	G
Cumulative %	32.12	63.26	83.55	94.49	98.96

Higher tier (27370 candidates)

	A*	A	B	C	D	allowed E
Cumulative %	5.82	37.07	69.36	90.36	98.78	99.54

Overall (59480 candidates)

	A*	A	B	C	D	E	F	G
Cumulative %	2.7	16.9	31.7	57.9	78.0	88.9	95.1	98.1

Short Course

Foundation tier

Component	Maximum Mark (Raw)	Maximum Mark (Scaled)	Mean Mark (Scaled)	Standard Deviation (Scaled)
3552/F	100	120	71.6	17.9
3552/C	95	180	97.4	31.9
Foundation tier overall 3552	--	300	168.90	41.56

		Max. mark	C	D	E	F	G
3552/F boundary mark	raw	100	85	73	61	50	40
	scaled	120	92	79	66	53	40
3552/C boundary mark	raw	95	60	48	36	24	12
	scaled	180	114	91	68	45	23
Foundation tier scaled boundary mark		300	195	162	129	96	63

Higher tier

Component	Maximum Mark (Raw)	Maximum Mark (Scaled)	Mean Mark (Scaled)	Standard Deviation (Scaled)
3552/H	100	120	81.4	15.0
3552/C	95	180	148.3	24.8
Higher tier overall 3552	--	300	229.76	34.79

		Max. mark	A*	A	B	C	D	allowed E
3552/H boundary mark	raw	100	83	75	67	60	48	-
	scaled	120	100	90	80	72	61	-
3552/C boundary mark	raw	95	95	84	72	60	48	-
	scaled	180	180	159	136	114	91	-
Higher tier scaled boundary mark		300	286	245	215	186	152	-

Provisional statistics for the award

Foundation tier (811 candidates)

	C	D	E	F	G
Cumulative %	31.1	58.0	79.2	91.6	98.3

Higher tier (739 candidates)

	A*	A	B	C	D	allowed E
Cumulative %	2.6	36.0	69.1	90.3	97.0	98.5

Overall (1550 candidates)

	A*	A	B	C	D	E	F	G
Cumulative %	1.2	17.2	33.0	59.3	76.6	88.4	94.9	98.4

Definitions

Boundary Mark: the minimum (scaled) mark required by a candidate to qualify for a given grade. Although component grade boundaries are provided, these are advisory. Candidates' final grades depend only on their total marks for the subject.

Mean Mark: is the sum of all candidates' marks divided by the number of candidates. In order to compare mean marks for different components, the mean mark (scaled) should be expressed as a percentage of the maximum mark (scaled).

Standard Deviation: a measure of the spread of candidates' marks. In most components, approximately two-thirds of all candidates lie in a range of plus or minus one standard deviation from the mean, and approximately 95% of all candidates lie in a range of plus or minus two standard deviations from the mean. In order to compare the standard deviations for different components, the standard deviation (scaled) should be expressed as a percentage of the maximum mark (scaled)