



External Assessment Report 2012

Subject(s)	Health and Food Technology
Level(s)	Higher

The statistics used in this report are pre-appeal.

This report provides information on the performance of candidates which it is hoped will be useful to teachers/lecturers in their preparation of candidates for future examinations. It is intended to be constructive and informative and to promote better understanding. It would be helpful to read this report in conjunction with the published question papers and marking instructions for the Examination.

Comments on candidate performance

General comments

The numbers of candidates presented for Health & Food Technology has shown a significant increase this year and is the highest presentation for the last four years. There has also been a slight increase in the number of presenting centres. Nine centres were presenting for the first time, with sixteen centres returning.

Most candidates embark on the Higher Health & Food Technology course having studied Standard Grade Home Economics or Intermediate 2 Health and Food Technology and 30% are direct entries with no previous experience. This is a slight increase from previous years. As the specification/standard for Higher Health & Food Technology was the same as previous years, the Grade Boundaries did not change.

87.5% of candidates achieved grades A-C in the examination and almost 6% of the candidates were awarded a Band D. By examining the breakdown of the component marks it is possible to establish the areas that should be addressed to ensure that future candidates achieve their potential. See guidance in sections later in this report.)

7% of the candidates were awarded a Band 8 or 9 and should, perhaps, have been entered for Intermediate 2 Health & Food Technology. As the technological briefs are the same for Intermediate 2 and Higher centres should be aware that it is possible to drop candidates down after the prelims if they had not demonstrated sufficient knowledge and/or answering technique.

The average marks for both the Technological Project and the written paper have slightly increased from last year and there is a slight improvement from previous years. Ways of improving candidate performance can be established by following the guidance below.

Technological Project

	Areas where candidates performed well	Areas which candidates found demanding
Step 1		
Step 1.1	The majority of candidates ensured that the brief was correctly copied from the wording provided on the SQA website. Most candidates provided good explanations of the key wording of the brief. Those candidates who showed better understanding in the explanations of the key points tended to demonstrate better understanding of the brief, which benefitted them at later stages of the technological project.	Some candidates struggled to explain 'iron', 'promotes' and 'supermarket' adequately.
Step 1.2	Specification points were linked well to the key points by most candidates. The candidates who developed specification points that clearly linked to the core key points from the wording of the brief tended to produce better solutions in step 2.2 as their work was more focused. Generally, candidates produced between 5-6 specifications points and only a few produced 7 or more. This avoided additional work at later	The key words that were often missed out were 'develop' and 'promotes', and this carried on into step 1.3 investigations. Those candidates who gave double specification points were disadvantaged in a number of areas as they would not fully explain or evaluate the whole specification point.

	<p>stages.</p> <p>More candidates can now demonstrate understanding of measuring/testing of each specification point.</p> <p>Most candidates explained in detail the importance of each specification point and showed knowledge in their explanations.</p>	<p>Some candidates are using previous Marking Instructions to identify techniques for measuring. This can result in the measurement and the explanation not being linked to the candidate's specification point and so not gain their marks. A few failed to earn the marks as they did not use the correct terminology eg ask, get feedback, get an opinion, consult, visit, gather, etc. Candidates should make reference to the Candidate Guide and use the correct terminology for measuring or testing techniques.</p>
Step 1.3	<p>The candidates who covered all of the core key points and the specification points in the investigations earned the highest marks and provided the most focused list of investigations.</p>	<p>Key words that were missed in the specifications and were also omitted in the investigations were 'promotes', 'suitable', 'supermarket' and 'develop'. This produced less focused investigations.</p> <p>A number of candidates did not carry forward from the proposed list of investigations on p7 to the investigations they intended to carry out on p8, and often changed the investigation and the technique.</p> <p>A few candidates did not show that they were linking or investigating to collect data in relation to all of their specification points.</p> <p>A few candidates failed to correctly copy across the aim for each of their three chosen investigations.</p>
Step 2		
Step 2.1	<p>Centres which made good use of the guidance given in the candidate guide provided strong investigations that provided valuable data to use when drawing up a solution.</p> <p>Generally the resources were clearly identified, though on occasion some candidates omitted the name or position of the expert who was used for the research.</p>	<p>Some candidates provided minimal investigations which did not allow sufficient data to be collected to allow interesting solutions that related to their specifications.</p> <p>Some candidates produced very limited investigations and drew minimal conclusions to the investigations that simply repeated the results. This lacked the depth required at Higher level.</p>
Step 2.2	<p>Some candidates came up with some original solutions based on</p>	<p>Some candidates produced very simple solutions or failed to develop or create</p>

	<p>good research from the data collected in their investigations. The solutions were clearly linked to wording of the brief and described in detail, with detailed recipes with exact ingredients and step-by-step method.</p>	<p>new food products. This fails to meet the wording of the brief, where the candidates were asked to 'develop' a new dish or food product. Candidates should be reminded that they should use metric measurements and not write ½ onion, 1 carrot etc.</p>
Step 3		
Step 3.1	<p>Most candidates provided sufficient detail about how to manufacture their chosen solution which could allow it to be produced exactly by another person. Good justifications showed an understanding of the functional properties of the ingredients, nutritional contribution or aesthetic appeal.</p>	<p>Candidates are reminded they should include the date. Some candidates failed to provide sufficient detail to allow the preparation of the solution time, some tasks taking too long. Hygiene — some candidates failed to include hygiene throughout the preparation of the solution, eg hand-washing after preparing raw chicken, and washing of fruit and vegetables. Equipment was often missing and type of knife not stated. Some justifications are very repetitive, losing candidates marks.</p>
Step 3.2	<p>When candidates prepared tests which covered all of the specifications points this provided good data for evaluation against the spec in 4.1</p>	<p>Questions or tests did not focus on the specification points which did not allow an evaluation in the next stage to be based on evidence.</p>
Step 3.3	<p>Candidates who made good use of the guidance given in the Candidate Guide provided strong, valid testing, which provided valuable data to use in the evaluation section — particularly step 4.1</p>	<p>Some candidates failed to identify the details of the expert they were interviewing. In some cases the testing failed to assess whether the solution met all the specification points, and few candidates asked for comments on improving or modifying the solution, which would provide information for the evaluation.</p>
Step 4		
Step 4.1	<p>Candidates who conducted testing against each of the specification points gave themselves data on which to base their evaluations. If the candidates provided the opinion, linked to the fact which can be seen within the content of the technological project, and then recognised the consequence in terms of the proposed solution, they</p>	<p>Some candidates are able to evaluate using opinion, fact, consequence (OFC), but are inaccurate in the factual information they are providing or make the consequence a repeat of the opinion (I have met this specification point as ...fact and so I have met the specification point). Evaluation not backed up by testing (and often including personal opinions and inaccurate interpretation of</p>

	earned the marks (Opinion, Fact, Consequence)	results) did not earn marks. There was not always evidence of costing to back up evaluation in some projects. Supermarket websites are a valuable resource for costing data. Many candidates are not picking up the extra mark available for additional detail in this section.
Step 4.2	Candidates showed some improvement in the technique in this area and were making reference to time, resources and skills. Candidates who made obvious links to time, resources and skills and abilities, which could be backed up by evidence in the technological project, and then recognised the consequence for the final solution, earned the marks.	Some candidates gave unsupported personal comments/statements in their attempt to complete the evaluation. Candidates wrote about previous experience in SG, Int 2 Hospitality, previous practising in class. This is not evidence that can be used as the basis of the evaluations. Many candidates spoke of really enjoying the practical cookery part or not having access to computers in the classroom, which is not relevant. The candidates are not always linking the evaluative comments to the consequence for the final solution and so are failing to include a valid consequence in the evaluative comment. This area of the project is still found to be the most difficult for the candidates.

Question Paper

Section A

Question	
1	Well answered
2	Well answered
3	Majority got marks – good knowledge of sources of salmonella
4	Majority got marks
5	Majority got marks
6	Majority got marks
7	Majority got marks – main error not linking to cell structure.
8	Majority got marks – some responses vague

9	Well answered
10	Well answered
11	Most candidates gained 1 mark, some did not know GM.
12	Majority of candidates answered well
13	Poorly answered – lack of knowledge of hydroponics
14	Advantages answered well but disadvantages poorly answered.

Section B Question 1- Compulsory Question

	Facts about performance	Action Required
1a	<p>The majority of the candidates used opinion, fact, consequence (OFC) in their answers and correctly referred to the 40 year-old male in each response.</p> <p>Energy – well answered.</p> <p>Protein – well answered.</p> <p>Vitamin B1– a few candidates chose this nutrient.</p> <p>Sodium – well answered and did make the link to hypertension.</p> <p>Vitamin C – well answered.</p> <p>Iron — candidates stated function of iron in the body but made link with anaemia / tiredness.</p> <p>Saturated fat – few candidates chose this nutrient</p> <p>Some candidates had gaps in their knowledge of the functions of the nutrients.</p>	<p>Candidates must provide all stages of the answer – an opinion based on the data on the table linked to the person in the wording of the question. They must then demonstrate their knowledge of the function of the nutrient and then provide a consequence in relation to the impact on health of the person.</p> <p>On occasion some candidates do not have sufficient knowledge about the impact of too much or too little of a nutrient on the person in the question ie the 40 year-old male.</p> <p>The fact about the nutrient must link to the consequence.</p>
1b	<p>Carbohydrate and vitamin B complex answered well, but the majority gave one answer.</p> <p>NSP and water – functions not always linked, and most gave one answer.</p>	.
1c	<p>Answered well with good knowledge of oxidation. Some responses lacked depth of explanation.</p>	<p>This question can be repeated for other nutrients – see previous papers.</p>
1d	<p>Evaluation of oily fish answered well by candidates.</p> <p>Those who did not gain marks did not link the consequence to the fact given.</p>	<p>This question can be repeated for other foods – see previous papers and course content.</p>

1e	Candidates usually laid out the answers well by clearly setting identify and explain on separate lines which made it easier for them to access the marks.	This question can be repeated for other dietary diseases – see previous papers and course content.
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Choice Questions

Question 2

	Facts about performance	Action Required
2a	Well answered by the majority of the candidates that selected this question. A few candidates lacked knowledge of the product development strategy. A few candidates failed to refer to the yoghurt in each response and so could not achieve all marks.	Practice linked to various food-focused products in the different styles of this question – see previous papers.
2b	Colour, smell, sweetness and fruitiness – well done majority giving good evaluations which referred to and showed knowledge of the needs of teenagers. Texture and consistency not linked as well to the yogurt. Candidates demonstrated good evaluative technique in this question.	Practice food focused products in the different styles of this question which appear frequently. Answers must refer to the product that is used in the question in the answer and show an understanding of the star profile rating as high or low.
2c	Answered well – most showing good understanding of osteoporosis	Candidates should link answer to the factor in the question – osteoporosis.
2d	Poorly answered – some knowledge shown of extrusion cooking and sugar substitutes but not answered in an evaluative way.	Improve knowledge on technological developments – see previous questions.
2e	Candidates' responses were vague and did not link to the consumer.	Improve knowledge of the Food Safety Act1990.

Question 3

	Facts about performance	Action Required
3a	Good knowledge of factors influencing choice of food shown by candidates – the majority answered this question well.	Candidates lost marks where there was no link to consumers.
3b	Candidates demonstrated some understanding of food manufacturers helping consumers meet Scottish Dietary Targets but lost marks for not	Practise evaluation technique for similar questions.

	providing opinion and consequence for the consumer.	
3c	Candidates demonstrated good knowledge of nutrition but did not answer as an evaluation because consequence often lacked linking to the fact given. Some candidates suggested improvements to the meal rather than evaluating the foods in the question.	Candidates make sure they provide all stages of the evaluation answer – opinion, fact, consequence (OFC).
3d	Candidates showed lack of knowledge of functional properties of foods and often did not make link to crystallisation. Knowledge of coagulation was better.	Functional properties of foods is a fairly common area. Practical activity in the classroom can help reinforce knowledge in this area.
3e	Candidates lacked specific knowledge of the responsibilities of the Trading Standards Department, and often gave statements rather than explanations in the answer. Candidates' responses referred to Environmental Health Department.	Improve knowledge on agencies protecting the consumer.

Question 4

	Facts about performance	Action Required
4a	Not well answered by the candidates. Responses not linked to pizza, and knowledge of the function of the ingredients was poor.	Practise this question for different ingredients / food products.
4b	Candidates had a lack of knowledge of HACCP and did not link answers to a pizza.	Practise this type of question for different ingredients / food products.
4c	Candidates answered this question fairly well with most explaining why sensory testing would be used.	Repeat this question for other areas of food manufacture.
4d	Well answered by candidates who demonstrated knowledge of preservation methods.	Candidates lacked the ability to explain how methods preserve foods.
4e	Candidates lost marks for simply listing facts about organic / fair-trade foods. Consequence was often lacking in evaluative responses.	Candidates should use the code given against the mark allocation and the wording of the question to make sure they provide all stages of the evaluation answer – OFC.

Advice to centres for preparation of future candidates

Technological Project

- ◆ Centres must ensure they use the up-to-date version of the Teacher Guide and Candidate Guide for the technological project, which can be downloaded from the SQA website. This will be available when the new briefs for the technological project are published at the end of September 2012. Please ensure that the updated proforma is used for the technological project.
- ◆ Candidates should check that each step has been completed in line with the guidance in the Candidate Guide to ensure they maximise the marks they earn.
- ◆ Candidates may find it helpful to identify a target group for their project. This may help them to focus on the needs of this particular group and so produce a more in-depth piece of work.
- ◆ Candidates should take responsibility for checking that each page of the project has been correctly collated and is included in the final work submitted to the SQA.
- ◆ The sections which required evaluation skills caused most problems. This is the area that needs to be addressed to improve the candidate marks. Complete the evaluation of each step of the technological project at the time identified in the candidate guide. Candidates should make sure that they write their evaluations based on evidence.
- ◆ The technological project should meet the requirements of the unit specification so that the NAB pass can be awarded.
- ◆ Although the marking instructions for the projects are available on the SQA website, candidates should be encouraged to come up with their own specification points, investigations and tests, which will then be more clearly focused on the wording of the brief.
- ◆ If you have presented candidates for three years, you are encouraged to become involved in the marking of the technological project so that you have a greater understanding of how candidates gain marks. Markers always state how valuable marking is in helping to raise their candidate's attainment. Information on how to apply to become a Marker can be found on the SQA's website in the Appointee Management section.

Written paper

- ◆ Candidates who have applied the correct answering technique achieve a higher mark. Those candidates who could answer evaluation questions correctly in the choice questions tended to score higher total marks for their papers.
- ◆ Candidates should use the mark allocation to establish how many answers they should provide — in some areas too much was written, and in others not enough.
- ◆ Create a well balanced prelim which meets the correct paper specification. This will prepare the pupils well for the written examination. This evidence can also be used to generate evidence for absentee candidates and appeals if necessary.
- ◆ Encourage candidates to use the SQA website for past papers, update letters, marking instructions, Understanding Standards materials etc.

- ◆ Practice all past Section A questions and encourage candidates to create their own Section A questions. Candidates who are well prepared for Section A demonstrate a wide knowledge of the course content and may therefore perform well in the rest of the paper.
- ◆ The questions towards the end of Section A are more discriminating and require more detail when they have the following wording — advantage, disadvantage, explain, benefit etc.
- ◆ Practice Section B question 1 to ensure that the candidates can answer Nutrition evaluation questions. A few candidates have gaps in their knowledge of nutrition.
- ◆ Although candidates use evaluation skills in question 1, they often do not apply the same answering technique in the choice questions. The candidates frequently have the knowledge but as they fail to evaluate they do not gain valuable marks.
- ◆ Dietary targets — a number of pupils did not know the whole dietary targets in sufficient detail for higher. '5-a-day' is not acceptable at Higher level. Pupils should know the full target, eg Increase consumption of fruit and vegetables to 400g per day.
- ◆ There is even confusion with the foods or nutrients used in the target, eg 'increase intake of calcium' or 'consume more red meat'. Candidates must learn the actual dietary targets.
- ◆ Allowing candidates to mark a copy of a written paper illustrates how marks are lost and gained, which is useful in training candidates on answering technique.
- ◆ Candidates can make use of bullet points to reduce the amount of writing and so save time, but must still ensure that they refer to the wording of the question.
- ◆ Note HFT can use some questions from previous LCT papers as additional sources of questions for homework etc.
- ◆ An excellent way to prepare pupils is to ensure they sit a valid prelim with a similar style of questions to the current questions, so it would be advisable to compile questions from the previous three or four years. Avoid issues linked to 'en bloc' by avoiding using a complete question from any previous paper. Mix up questions from previous papers. It would be useful, but not essential, to change the focus of the questions, eg if the question is focused on a Chinese dish change the question to one on a pasta dish. Note: ½ marks have not been used for a number of years and questions using half marks should be changed to 1 mark questions in line with the current papers.
- ◆ Examine the current years Marking Instructions for Higher Health & Food Technology. This is the standard that should be applied when marking previous questions and prelims. When previous marking instructions were written they were sometimes written as outline instructions and do not provide as much detail as current instructions.
- ◆ If you have taught this course for a minimum of three years, to raise attainment is to apply for marking the written paper. See SQA website for details.

Statistical information: update on Courses

Number of resulted entries in 2011	799
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Number of resulted entries in 2012	916
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Statistical information: Performance of candidates

Distribution of Course awards including grade boundaries

Distribution of Course awards	%	Cum. %	Number of candidates	Lowest mark
Maximum Mark 150				
A	34.3%	34.3%	314	105
B	32.0%	66.3%	293	90
C	21.2%	87.4%	194	75
D	5.8%	93.2%	53	67
No award	6.8%	100.0%	62	-

General commentary on grade boundaries

- ◆ While SQA aims to set examinations and create marking instructions which will allow a competent candidate to score a minimum of 50% of the available marks (the notional C boundary) and a well prepared, very competent candidate to score at least 70% of the available marks (the notional A boundary), it is very challenging to get the standard on target every year, in every subject at every level.
- ◆ Each year SQA therefore holds a grade boundary meeting for each subject at each level where it brings together all the information available (statistical and judgemental). The Principal Assessor and SQA Qualifications Manager meet with the relevant SQA Business Manager and Statistician to discuss the evidence and make decisions. The meetings are chaired by members of the management team at SQA.
- ◆ The grade boundaries can be adjusted downwards if there is evidence that the exam is more challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ The grade boundaries can be adjusted upwards if there is evidence that the exam is less challenging than usual, allowing the pass rate to be unaffected by this circumstance.
- ◆ Where standards are comparable to previous years, similar grade boundaries are maintained.
- ◆ An exam paper at a particular level in a subject in one year tends to have a marginally different set of grade boundaries from exam papers in that subject at that level in other years. This is because the particular questions, and the mix of questions, are different. This is also the case for exams set in centres. If SQA has already altered a boundary in a particular year in say Higher Chemistry this does not mean that centres should necessarily alter boundaries in their prelim exam in Higher Chemistry. The two are not that closely related as they do not contain identical questions.
- ◆ SQA's main aim is to be fair to candidates across all subjects and all levels and maintain comparable standards across the years, even as arrangements evolve and change.