



External Assessment Report 2011

Subject	Health and Food Technology
Level	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 number of candidates presented for Health and Food Technology showed a slight decrease from last year, but was still slightly higher than 2008 and 2009. There were eight centres presenting for the first time. Most candidates embark on the Higher Health and Food Technology Course having studied Standard Grade Home Economics or Intermediate 2 Health and Food Technology; however, in 2011 almost 30% were direct entries with no previous experience. This is a slight increase from previous years.

As the standard of the Higher Health and Food Technology Question Paper was the same as in previous years, the grade boundaries were not moved.

The average marks for both the Technological Project and the Question Paper have slightly increased from last session. Ways to improve candidate performance are covered in this document.

By examining the breakdown of the component marks it is possible to establish the areas that should be addressed to ensure that future candidates are given the best possible learning experience.

9.8% of the candidates achieved no award. The Technological Project briefs are the same for Intermediate 2 and Higher so it is possible for candidates to move to Intermediate 2 following prelims. (If a candidate changes levels to Intermediate 2 you should ensure that they use the Intermediate 2 pro forma due to the differing mark allocation.)

The NABs can be used as a revision tool for candidates prior to the examination.

Technological Project

	Areas where candidates performed well	Areas which candidates found demanding
Step 1		
Step 1.1	<p>The majority of candidates ensured that the brief was correctly copied from the wording provided on SQA's website.</p> <p>Most candidates provided good explanations of the key wording of the brief. Those candidates that provided more detail in their explanations of the key points tended to demonstrate better understanding of the brief which benefitted them at later stages of the Technological Project.</p>	<p>A few candidates failed to correctly demonstrate an understanding of the word 'develop' which had an impact later on the type of solution that was produced.</p> <p>Some candidates struggled to explain 'healthy option range' and 'alternative protein'.</p>
Step 1.2	<p>Specification points were on the whole acceptable. 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.</p> <p>Generally, the candidates produced between 5–6 specification points which avoided additional work at later stages.</p> <p>Candidates demonstrated and understood the measuring/testing of each specification point.</p> <p>Most candidates explained in detail the importance of each specification point by showing knowledge in their explanations.</p>	<p>The key words often missed out were: 'develop', 'option' or 'range' 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 could not fully explain or evaluate the whole (both parts) specification point.</p> <p>Some candidates are using previous marking instructions to identify techniques for measuring. This can result in a list of measures being created rather than techniques specific to each specification point. 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 menus', etc. Candidates should make reference to the Candidate Guide and use the correct terminology for measuring or testing techniques.</p> <p>Some candidates repeated their specification points in the explanation with no further expansion to actually explain each point, and so lost marks in this section.</p>

	Areas where candidates performed well	Areas which candidates found demanding
Step 1.3	<p>The candidates who covered all 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 also omitted in the investigations were: 'sold', 'includes/ included' and 'develop'. This produced less focused investigations.</p> <p>A number of candidates did not carry forward the investigations they intended to carry out on page 8 from the proposed list of investigations on page 7. And they 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>Some candidates failed to correctly copy across the aim for each of their three chosen investigations.</p>
Step 2		
Step 2.1	<p>Candidates who made good use of the guidance provided in the Candidate Guide carried out strong investigations which provided valuable data to use when drawing up a solution.</p> <p>Generally, the resources were clearly identified. However, some candidates omitted the name or position of the expert who was used for the research.</p> <p>Conclusions from the investigations were much better and showed a link to the information discovered in the investigation.</p>	<p>Some candidates provided minimal investigations which did not allow sufficient data to be collected to allow the creation of interesting solutions that related to their specifications.</p> <p>Some candidates were not meeting all of their aims as there were too many points to be covered and it wasn't possible to address them all.</p>
Step 2.2	<p>Some candidates came up with original solutions based on good research from the data collected in their investigations.</p> <p>The solutions were clearly linked to the wording of the brief and described detailed recipes with exact ingredients and step-by-step methods.</p>	<p>Some candidates failed to develop or create 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.</p> <p>Candidates should be reminded that they should use metric measurements and not write ½ onion, 1 carrot, etc.</p>

	Areas where candidates performed well	Areas which candidates found demanding
Step 3		
Step 3.1	<p>Most candidates provided sufficient detail about how to manufacture their chosen solution that it could be produced exactly by another person.</p> <p>Good justifications showed an understanding of the functional properties of the ingredients, nutritional contribution or aesthetic appeal.</p>	<p>Candidates should be reminded to include the date. Some candidates failed to provide sufficient detail to allow the preparation of the solution, eg a lack of detail with regard to preparation of vegetables.</p> <p>Time — some candidates spent too much time on tasks.</p> <p>Hygiene — Some candidates failed to mention hygiene throughout the preparation of the solution, eg hand washing after preparing raw chicken.</p> <p>Equipment was often missing and the type of knife not stated.</p>
Step 3.2	When candidates prepared tests that covered all of the specification points, this provided lots of data for evaluation against the spec in 4.1.	When questions or tests did not focus on the specification points, there was insufficient evidence for evaluation to take place at the next stage.
Step 3.3	Candidates who made good use of the guidance provided in the Candidate Guide provided strong, valid testing, giving valuable data to use in the evaluation section, particularly step 4.1	<p>Some candidates failed to identify the details of the expert they were interviewing.</p> <p>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 have provided information for the evaluation.</p>
Step 4		
Step 4.1	Candidates who thoroughly tested 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 earned the marks. (Opinion/Fact/Consequence)	<p>Some candidates are able to evaluate using Opinion/Fact/Consequence but provide inaccurate information 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.') Evaluations that were not backed up by testing, etc and which included personal opinions and inaccurate interpretation of 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.</p> <p>Many candidates are not picking up the extra mark available for additional detail in this section.</p>

	Areas where candidates performed well	Areas which candidates found demanding
Step 4.2	<p>Candidates have improved their technique in this area and were making reference to time, resources and skills.</p> <p>Candidates who made obvious links to time, resources and skills and abilities, that could be backed up by evidence in the technological project, and then recognised the consequence, earned the marks.</p>	<p>Many candidates gave unsupported, personal comments/statements in their attempt to complete the evaluation. These candidates did not use Opinion/Fact/Consequence to write an evaluative comment and so did not earn the marks.</p> <p>Some candidates wrote about previous experience in SG/Int 2 Hospitality and previous practising in class. This is not evidence that can be used as the basis of an evaluation. Many candidates spoke of really enjoying the practical cookery part or not having access to computers in the classroom — points which are not relevant.</p> <p>Candidates did not always link the evaluative comments to the consequence for the final solution and so failed to include a consequence in the evaluative comment.</p> <p>This area of the project is still the most difficult for the candidates.</p>

Candidate Performance in Health & Food Technology Written Paper

These comments should be read in conjunction with the examination paper and the marking instructions which will be available on SQA's website. The comments include areas where candidates performed well and areas they found demanding, and so helps provide guidance on improving candidate performance.

Section A

Question	Comment
1	Well answered.
2	A number of candidates did not write vitamin B complex or name the B group vitamin. Vitamin B alone is not enough.
3	Majority got marks.
4	Majority got marks but confusion with function of fat.
5	Majority got marks.
6	Majority got marks.
7	Majority got marks — main error was candidates said ultra-heat treatment instead of treated.
8	Majority got marks — some candidates confused with stages in product development.
9	Well answered but some candidates mixed-up with organic produce.
10	Well answered.
11	Some candidates earned these marks however others were confused with general food labelling requirements.
12	Majority of candidates answered well.
13	Poorly answered — most candidates confused with the role of Environmental Health Officer rather than Food Standards Agency.
14	Majority answered well.

General comments

- ◆ Practise all previous Section A questions.
- ◆ Make up your own Section A questions.
- ◆ Check the wording of questions. Is the question asking for a benefit, a cause, a way, etc?

Section B Question 1 — Compulsory question

	Facts about performance	Action required
1a	<p>The majority of candidates used Opinion/Fact/Consequence in their answers and correctly referred to the 80-year-old male in each response.</p> <p>Energy — well answered.</p> <p>Protein — well answered, although some facts about protein in relation to maintenance were incorrect.</p> <p>Sodium — very few had the function of sodium, but did make the link to hypertension.</p> <p>Vitamin A — many did not get the mark because they failed to mention vision in dim light.</p> <p>Vitamin B1— a few candidates chose this nutrient.</p> <p>Iron — few candidates stated the function of iron in the body but made a link with anaemia/tiredness.</p> <p>NSP — well answered.</p> <p>Some candidates had gaps in their knowledge about the functions of the nutrients.</p>	<p>Candidates must provide all stages of the answer — an opinion based on the data in 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 this person's health.</p> <p>Some candidates did not have sufficient knowledge about the impact of too much or too little of a nutrient on the person in the question, ie the 80-year-old male.</p>
1b	<p>A number of candidates provided statements and not explanations for this question. Protein question was answered well, carbohydrate less well.</p>	<p>Practical work linked to the effect of heat on nutrients.</p>
1c	<p>This question tested the ability of the candidate to evaluate fruit and vegetables in the diet. A number of candidates provided correct facts about fruit and vegetables but failed to give an opinion or consequences and so gained no marks.</p>	<p>This question can be repeated for other foods — see previous papers.</p>
1d	<p>Candidates usually laid out the answers well by clearly setting out to identify and explain on separate lines, which made it easier for them to access the marks.</p> <p>The majority got at least two out of three factors correct — a few referred to brushing teeth but most got dietary factors.</p> <p>Some explanations were poor in relation to how the factor caused dental caries — lack of knowledge of the process of tooth decay.</p>	<p>This question can be repeated for other dietary diseases — see previous papers and Course content.</p>

Choice questions

Question 2

	Facts about performance	Action required
2a	<p>Well answered by the majority of the candidates that selected this question.</p> <p>A few candidates lacked knowledge of the product development strategy.</p> <p>A few candidates failed to refer to the fruit smoothie in each response and so lost marks.</p>	<p>Practise answering this question linked to various food focused products using the different styles of this question — see previous papers.</p>
2b	<p>Sweet, colour, fruity, aroma — well done by the majority with good evaluations which referred to and showed knowledge of the needs of young children.</p> <p>Candidates demonstrated good evaluative technique in this question.</p>	<p>Practise food focused products in the different styles of this question which appear frequently.</p> <p>Answers must refer to the product that is used in the question in the answer.</p>
2c	<p>Religion, peer pressure and shift patterns were answered well but there was a lack of knowledge of range of retail outlets.</p> <p>Some candidates did not link their answer to food choice so they could not gain all of the available marks.</p>	<p>Candidates should link answer to the factor in the question — food choice.</p>
2d	<p>Good evaluation technique demonstrated.</p> <p>Good knowledge of freezing but lack of knowledge of functional foods. Many candidates able to give one answer for each area.</p>	<p>Improve knowledge on technological developments — see previous questions.</p>
2e	<p>Candidates provided statements and not explanations linked to the home or the individual and not the food manufacturer.</p>	<p>When the question refers to sodium — sodium should appear in the answer.</p>

Question 3

	Facts about performance	Action required
3a	Most candidates answered well, using evaluative technique and making link to pregnancy. Good knowledge of the nutritional value of foods.	Candidates could not access all marks where there was no understanding of the nutritional value of the food in relation to pregnancy.
3b	Candidates demonstrated good knowledge of the control measures for E-coli, some could not gain marks as they did not link to E-coli in the answer.	Areas linked to hygiene tend to be tested each year so candidates must have knowledge of this area of the Course content.
3c	Candidates demonstrated good knowledge of food labelling but did not answer the question as an evaluation meaning that a consequence was often lacking.	Candidates should use the mark allocation and the wording of the question to make sure they provide all stages of the evaluation answer — Opinion/Fact/Consequence.
3d	Candidates showed a lack of knowledge of functional properties of foods and often did not make link to baked products in the answer.	Functional property 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 Environmental Health Department and often gave statements rather than explanations in the answer.	Refer to previous papers as Environmental Health Officer/ Environmental Health Department is a frequently asked question.

Question 4

	Facts about performance	Action required
4a	The majority of the candidates correctly identified and explained the procedures for sensory testing. Very well answered question.	Sensory testing carried out in class helps reinforce this area.
4b	Candidates had a lack of knowledge of emulsifiers. Sweeteners question was answered well by most candidates.	Candidates should use the mark allocation and the wording of the question to make sure they provide all stages of the evaluation answer — Opinion/Fact/Consequence.
4c	Candidates answered this question fairly well with a few linking to exercise rather than dietary factors.	Repeat this question for other dietary diseases. Some candidates still think salt causes obesity.
4d	Poorly answered by the candidates due to lack of knowledge of the Act and confusion with other Acts such as Trade Description Act. Some candidates made link to satisfactory, as described and fit-for-purpose but failed to link to the consumer.	Candidates must learn the function/ roles of each of the organisations identified in the Arrangements Document Course content grids.
4e	Candidates were unable to gain marks as they did not make the link to food in the answer. In-store tasting tended to gain the marks as there was a direct link with food. Consequence often lacking in responses.	Repeat for other areas that influence consumer choice of food. 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 — Opinion/Fact/Consequence.

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 SQA's website. This will be available when the new briefs for the Technological Project are published. Please ensure that the updated proforma is used.

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 gain.

Candidates may find it helpful to identify a target group for their project as 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 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 justified.

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 candidates' attainment. Information on how to apply to become a Marker can be found on SQA's website in the [Appointee Management](#) section.

Although the marking instructions for the projects are available on SQA's website, candidates should be encouraged to devise their own specification points, investigations and tests which will then be more clearly focused on the wording of the brief.

Written paper

Candidates who have applied the correct answering technique achieve a higher mark than those from centres where there has been less emphasis on answering technique. 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 other areas there was not enough written.

Centres should create a well balanced prelim which meets the correct question 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 SQA's website for past papers, update letters, marking instructions, Understanding Standards materials, etc.

Centres should practise 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 difficult and require more detail when they have the following wording — advantage, disadvantage, explain, benefit, etc.

Centres should practise 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 don't apply the same answering technique in the choice questions. The candidates frequently have the knowledge but as they fail to evaluate, they cannot gain valuable marks.

Dietary targets — a number of pupils did not know the whole dietary targets in sufficient detail for this level, '5-a-day' is not acceptable at Higher. Pupils should know the full target, ie increase consumption of fruit and vegetables to 400 g per day. There is even confusion with the foods or nutrients used in the target. For example, 'increase intake of calcium' or 'consume more red meat'. Candidates must learn the actual dietary targets.

Allowing candidates to mark a copy of a candidate question paper illustrates how marks are 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 they must still ensure that they refer to the wording of the question.

Note: Health and Food Technology can use some questions from previous Lifestyle and Consumer Technology papers as additional sources of questions for homework, etc.

An excellent way to prepare pupils is to ensure they sit a valid prelim with similar styles of questions to the current questions. It is best practice to compile questions from official SQA past papers from the previous three or four years. Avoid issues linked to 'en bloc' by not 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: half marks have not been used for a number of years and questions using half marks should be changed to one-mark questions in line with the current papers.

Examine the current year's 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 the current instructions.

If you have taught this Course for a minimum of three years, you are encouraged to apply to mark the Question Paper. Please go to the [Appointee Management](#) section of the SQA website for further information.

Statistical information: update on Courses

Number of resulted entries in 2010	863
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Number of resulted entries in 2011	799
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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	26.2%	26.2%	209	105
B	35.9%	62.1%	287	90
C	21.3%	83.4%	170	75
D	6.9%	90.2%	55	67
No award	9.8%	100.0%	78	-

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, therefore, SQA 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 Head of Service 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.