



General Certificate of Education

Applied Science

8771/8773/8776/8779

SC04 Food Science and Technology

Report on the Examination

2009 examination - June series

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General Comments

The number of candidates entered for the portfolio units has again increased this year and many centres have continued to guide their candidates to achieve well. These units have generated much high quality work from centres. Credit should be given to both teachers and candidates in making considerable effort to meet the expected standards.

The random sampling of accredited centres confirmed the value of the accreditation process - with centre marking being confirmed as being in line with AQA standards in most cases, but with a small number showing some "slippage" leading to loss of accreditation.

(The accreditation scheme is used where centres have demonstrated that they are able to mark to the required AQA standards. Under the scheme AQA will accept centre marks without the need to complete the moderation process.)

Portfolio issues

Portfolio construction remains a concern with some candidates, and it is evident that further centre guidance is needed. However, it is very important that centres continue to provide the opportunity for candidates to demonstrate flair and individuality. It is easier for moderation if portfolio structure matches the structure of the unit. Centres are also advised to monitor portfolios during their production as some candidates continue to produce unreasonably large portfolios.

For some units, it appears that the level of expectation of the quality of portfolio content and/or the outcomes that candidates are able to produce are set too low. A number of centres are still judged to have marked candidates work too generously and where this was the case, centres marks were deemed out of tolerance by the moderator and had to be reduced.

Some of the causes of overgenerous marking included:

- Misinterpretation of the requirements of unit
- Too much work on non-essential areas and/or too little on required aspects
- failure to fully complete aspects of the unit as required in the "Banner", in such cases work should be assessed in line with the guidance given in section 9.2 of the teachers' guide
- Over-lenient interpretation of the assessment grids
- Lack of rigour in marking/assessment of work – incorrect science accepted, incorrect calculations marked as correct, incorrect statements accepted, praise for work which is of poor quality, marks allocated for work for which there is no evidence – or no supporting teacher comment (# in the assessment grids)
- Poor candidate skills in practical activities leading to a lack of precision and unreliability in results
- A lack of description by the centre assessor of candidate's level of practical skills, their awareness of safety procedures and degree of autonomy (marked # in the assessment grids) and resulting inconsistencies between the marks awarded by the assessor and the portfolio evidence
- The inclusion of materials downloaded from the internet either passed as the candidates own work or not referenced in the portfolio

As stressed at AQA standardising meetings held in autumn 2008, in communications sent to centres and in last year's Principal Moderators report, it is imperative that centres make it very clear to candidates that the incorporation of text downloaded from the Internet into portfolios is plagiarism and must not be tolerated.

Centres are reminded that many issues and points of guidance made in the 2008 Principal Moderators exam report are still valid and this remains a valuable source of information for centres seeking to improve their portfolios.

Unit 4 – Food Science and Technology

This unit has 2 parts:

- The generation of a design brief for product for a particular client group with a specific dietary need
- The making and testing of the product

Many centres made excellent efforts with this unit and met unit requirements well. Some centres visit catering colleges or similar for this unit. Where this is the case, the providers should be made fully aware of specification requirements and take care not to compromise student opportunities to gain marks by project leaders who provide too much "help".

There are several areas where the unit requirements are not fully understood or applied:

- The design brief or product specification is frequently not clearly identified
- There should be a clear section, that sets out:
 - What the candidate is going to make
 - Who it is for
 - What particular features it should have
 - How it is planned to package and
 - How to keep the product in good condition
- Research into recipes, ingredients, and methods of preparation should follow
- Some candidates chose to make inappropriate products (for example a protein shake – protein powder added to milk or water), which are inadequate to meet specification requirements
- Some candidates provided no evidence whatsoever that a product had been made. Photographic evidence is acceptable
- Individual contributions to group activities should be made very clear so that credit goes to the appropriate person
- Tests on foods which have no link to the products made, meaning access to marks is limited
- In many portfolios, much practical work gave only qualitative results based on low level observational work on food decay. Serial dilutions, colony counts, turbidity or other tests that generate numerical data would be more appropriate covering both decay and preservation in separate experimental procedures. Some candidates carried out activities of little relevance such as tracking the drying out of soup over time, or checking weight loss of food samples in sealed containers
- A shelf life for the product based on the results of experimental work was either often missing, total guesswork or inappropriate based on the evidence available
- Costing of the product was often simplistic and frequently generated wildly optimistic levels of income from projected sales of the product

- Work on Government Agencies such as the Ministry of Agriculture, Fisheries and Food, the Food Standards Agency and the local authority inspectorate and the tests they carry out related to the product is an area still in need of development in many centres

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results statistics](#) page of the AQA Website.