



General Certificate of Education

*Design and Technology:
Food Technology 1540*

Report on the Examination

2009 examination – January series

*FOOD1: Materials, Components and
Application*

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General

This was the first occasion upon which candidates had sat a paper for the new specification. The responses to the paper as a whole were varied. A minority of candidates answered both questions Section B, whilst a number of candidates left a number of gaps in Section A – centres still need to ensure that candidates are aware of the instructions for completing a question paper correctly. Centres should also assess the candidates' subject knowledge and ability to attempt the paper in January of Year 12 more realistically, as a number of candidates attempted this paper who were simply not yet ready for the demands of an AS paper.

It was pleasing to note that the 'quality of written communication' was generally good; compared to the legacy specification, more subject specific terminology was used accurately and the majority of handwriting was legible.

In all sections candidates are advised to refer to the mark allocation to guide them on the length and depth of their responses. Also candidates would be well advised to take into account the amount of space on the examination paper available for each response: this is intended to guide candidates as to the length of response that is required to each question. Candidates should try to avoid using continuation sheets, but if they are used, candidates should end the original booklet at the end of a sentence and begin the continuation sheet with a new sentence, as this is much clearer. Each question and sub question should be clearly marked at the beginning of the response on a continuation sheet.

Section A

Candidates are expected to have an understanding of the physical properties of ingredients and components with relation to specific examples and a good understanding of the methods by which they can be manipulated to make food products. It is vital that centres ensure that their candidates have a high level of knowledge, as a number of candidates answered simple factual questions incorrectly.

Candidates' responses varied to this section. Most knew the High Biological Value protein foods, but many were confused between fat soluble vitamins and other nutrients. Very few responses explained the difference between soluble and insoluble Non Starch Polysaccharides and the effects of heat on water soluble vitamins.

Generally candidates were able to explain the differences between fats and oils, name the units used to measure energy and explain factors affecting BMR – although some interesting but irrelevant factors were also mentioned! Candidates were aware of some functions of calcium in the body, although many failed to note the mark allocation for this question and gave superficial responses without a description.

Section B

Candidates are expected to develop knowledge and understanding of the broader issues for the designer, e.g. environmental sustainability, health issues, social factors, cultural influences and consumer safety.

9 (a) Some responses discussed the social and cultural issues influencing product development in detail whilst others misread the question and talked about environmental issues. More able candidates included a full and accurate discussion of both cultural and social issues influencing product development. Weaker responses were superficial with few justified points.

9 (b) Many responses included a full and accurate explanation of why cheese would be a suitable ingredient when producing food products, both savoury and sweet, for a school canteen. However, other responses were superficial, with some focussing on savoury products only, with many providing little justification for their points. Many responses were brief and stated inaccurate points for consideration. Some candidates were unaware of the nutritional content of cheese whilst others failed to connect to the age range of clients in a school canteen.

10 (a) Candidates were credited for any well justified environmental issues linked to food choice. However, many responses confused social and cultural factors with environmental factors. Some responses failed to justify the points and issues raised and simply listed issues.

10 (b) Any well justified responses were credited, but only the more able candidates were able to structure their responses to avoid repetition and irrelevant information being included. Higher scoring responses accurately made reference to current dietary guidelines in connection to healthy eating and included specific examples (e.g. 6 grams of salt per day). Weaker responses were superficial and repetitive.

Section C

Candidates are expected to have an understanding of computer aided design (CAD) and computer aided manufacture (CAM), and the basic quality control measures. Links could be made to practical coursework and the health and safety issues relevant to working with materials.

11 (a) The majority of candidates used annotated sketches to illustrate how a range of food products based on rice could be developed. Many included four sketches even though no specific number was asked for. Equally candidates who described the development of food products based on rice without sketches were still able to access full marks when responses were accurate and well presented using subject specific terminology. Candidates should be aware of what the question is asking them to make reference to in their responses and the allocated marks to each aspect. Where candidates made reference to each aspect separately and gave a clear and logical approach to the response which avoided repetition they were able to gain high marks. Any well justified response was credited.

11 (b) Responses varied to the factors affecting bacterial growth in food. More able candidates included a full and accurate discussion, with specific points of bacterial growth in food which were well justified. Weaker responses were inaccurate and superficial.

11 (c) Candidates explained how Information Communication Technology is used in the development of food products. Some candidates focussed solely on CAD/CAM whilst giving specific examples accurately, others simply mentioned CAD/CAM but failed to go into any detail. Other aspects of Information Communication Technology were mentioned and in detail by more able candidates. Questions worth 10 marks are expecting detailed, well explained responses from candidates.

Mark Ranges and Award of Grades

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