



**General Certificate of Secondary Education
(Short Course)
June 2012**

Design and Technology: 45751

Short Course

(Specification 4575)

Unit 1: Written Paper

Report on the Examination

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General

This is the third year this course has been examined. It was felt that overall the standard of responses seen were marginally better than in the previous year.

A detailed analysis of the level of candidate responses is available to centres if they refer to the Enhanced Results Analysis (ERA) system that can be accessed through e-AQA. It is recommended that centres look at this as it may prove valuable in terms of identifying issues which could inform future course planning/ revision programmes.

Administration

Whilst administration was generally very good, similar issues to those highlighted in 2011 remain.

This year saw a significant increase in the number of candidates completing work on additional sheets. As last year, a significant number of candidates produced work on additional sheets that did not result in extra marks. Some wasted time copying out again the response produced in the answer booklet and then added to it. Examiners were required to ascertain and discount from additional sheets points that had already been credited from the answer booklet before awarding additional marks. This was particularly true of Q2c.

Some candidates produced their answers in a manner which also caused problems for marking.

- Writing outside the area permitted on the question paper, which resulted in parts of candidate responses being cropped when scanned
- Not rubbing out errors on Q1a thoroughly; when scanned these lines were still visible to the examiner, which made it difficult to distinguish between correct and incorrect responses

The clarity of handwriting by the majority of candidates was good, however, the quality of communication, both written and graphical varied considerably. A number of responses seen were not fully developed and poorly expressed. It is felt that this reflects the age of the entry of some of the candidates.

Question 1

This question related to material stock forms and standard components.

- (a)** Candidates appeared to find this question more accessible than last year with almost 80% managing to score at least one mark. However, very few candidates scored full marks.
- (b) (i)** Most candidates were able to name a product that one of the standard components could be fitted into. A minority of students missed out on a mark as they gave answers such as a zip could be incorporated into clothing. This, and other similar answers such as furniture and food are not specific enough to be worthy of a mark.
- (b) (ii)** It was surprising that only half the entry were able to name a second standard component. A significant number misread the question and cited an alternative product for the component selected in 1b(i).
- (c)** This question was poorly answered by candidates with almost half failing to achieve a mark. A number of candidates did not attempt the question and a number of vague responses were seen where it was clear that candidates did not understand what a standard component is, despite being given examples in part b. Some candidates talked about the component they had selected in part b, but did not really make the link between the component and making. Responses such as zips are easy to fasten were common. Some candidates were able to explain that using bought components helped to speed up the manufacturing process, but often were unable to say more. A minority of candidates scored 2 or more marks.

Question 2

This question is about designing and making in a school setting

(a) Whilst this question was well attempted, there were still a number of candidates who were unable to score a mark for this question. This is difficult to understand as candidates will have written design criteria as part of their coursework. Some candidates did not understand the terms function and aesthetics and consequently produced criteria that did not match the characteristics required. Less than 20% were able to score full marks on the question. Obtaining half marks was more common with candidates typically stating criteria, but struggling to qualify this with any explanation for the other mark, typically repeating the specification point.

For example:

Characteristic	Specification point	Why important to target market?
Function (Hat)	To keep the head warm	Children need to keep warm

Better responses were able to justify by linking the product to where and when the product would be used.

(b) This question adopted a similar format to a question on the 2010 paper. Weaker candidates produced poor sketches which were not significantly different to the basic designs provided as part of the question. Most candidates labelled features on their designs and in the best responses; aspects of the design were explained/ justified.

(c) This question also took a similar format to previous years and the majority of candidates attempted it well. The question differentiated well between weaker and more able candidates and a full range of responses were seen. The number of candidates scoring full marks however, remained low. Each year the requirements for the question change subtly and it would appear, as last year, some candidates did not read the question carefully. Most responses did not include quality checks, which were not part of the question last year. The best responses were structured and arranged as a flow chart or a table. This made these responses easier for candidates to check that their answers had sufficient detail.

Question 3

This question related to packaging and the environment.

(a) This question was very straightforward and it was a disappointment that only a third of candidates achieved full marks. Some candidates cited functions that were too similar to each other for full marks e.g. to transport, to carry.

(b) (i) Most candidates were able to score at least one mark on this question but only 8% achieved all three marks. Candidates must take note of the question stem to ensure that their response answers the question. Candidates could not score marks for repeating points made in 3a, for example “the packaging protects the contents” as the question requires candidates to explain. The best answers talked specifically about the packaging shown and cited examples of how the design satisfied the stated functions. For example: “All three packages help with transportation. The glass bottles are designed to fit into crates that can protect the bottles and be stacked onto a milk float. The cuboid shape of the tetra pack carton means that they are easy to pack large numbers of cartons and minimise the space required to transport them to supermarkets”

(b) (ii) This question was designed to test the quality of written communication and required candidates to write fluently about the environmental impact of milk packaging on the environment. Some superb responses were seen and the question differentiated well between weaker and more able candidates. The most able candidates were able to structure their response, use a technical vocabulary, spell correctly and produce an answer that was accurately punctuated and grammatically correct.

The vast majority of candidates were able to make valid points relating to the source of materials or disposal of packaging. Better responses discussed a wider variety of issues and qualified points made with specific reference to the packaging examples provided in part b(i). The most able candidates concluded which packaging solution, in their view was best for the environment and gave a full justification for their opinion.

(c) This was a straightforward question, but only 25% of candidates knew the meaning of both symbols. A common misconception was that the keep dry logo meant waterproof.

Question 4

This question is about making. The focus in 2012 was construction, whereas in 2011 it was about weighing, measuring and marking out.

- (a)** The format of the question was similar to previous years, with a slightly higher mark allocation. Most candidates were able to score at least one mark, but the number of candidates scoring 3 or above remains low. This reflects the lack of detail provided in responses. Candidates were able to score marks for describing the processes (including QC) and naming the tools used. The best responses seen were for the DVD rack where more able candidates explained how they would get the holes in the rack to line up accurately and produced exploded views to explain how they would fit the parts together. In comparison some poor responses were seen for the bag e.g. sew the handles on with a sewing machine. Few of the textile responses explained how they would ensure that the handles were located in the correct place and how the handles would be reinforced for strength for example.
- (b) (i)** Most candidates were able to explain the term risk assessment within the context of making. Some candidates did not score a mark for this question as their responses related to the safety of the product in use and the manufacturer not being “sued” which did not fit the context of the question.
- (b)(ii)** This question was straightforward, but some candidates did not attempt the question and possibly did not understand the term risk assessment. In the best responses candidates were able to describe the potential dangers for the processes in 4a and explained what safety rules needed to be observed. Poor exam technique may explain why the numbers scoring full marks for this and other parts of Q4. Candidates must take note of the number of marks for the question and respond in sufficient depth. In this case, one hazard cited and two safety rules, or two hazards and one safety rule would have been sufficient for full marks.

General advice for centres

When planning a revision programme for the 2013 examination, the Principal Examiner would advise centres to take note of the point made above and work on the following areas:

- Exam technique – take note of question stems and mark allocations to ensure that responses are relevant and of sufficient depth for full marks
- Work on extending answers to match the mark allocations for questions. Encourage candidates to structure and extend their responses by making a point, providing an example and then an explanation.
- Develop subject specific vocabulary to ensure that candidates can access questions and to improve how their responses are communicated

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