Examiners' Report
Principal Examiner Feedback

Summer 2023

Pearson Edexcel GCE
In Design & Technology (1DT0)
1E: Textiles

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Introduction
This is the third full cohort of candidates has taken the reformed (9-1) GCSE Design Technology given the disruptions to learning because of COVID.

There are six different material specialist papers on offer, each with a common core in Section A which was worth 40 marks and a Section B worth 60 marks based on one of the six material areas; Metals, Papers and Boards, Polymers, Systems, textiles and Timbers.

Question 1 (a)(i) A generally well answered question, with a good number of candidates offering a correct response, mostly related to the material being an electrical insulator, appropriate within the context of the question.

It is important to stress here that these opening four small questions are about the properties of materials in the context of the product or component given in the table and therefore generic properties will not be accepted. Waterproof is an example of the more generic type of response seen but in the context of a PCB, being waterproof is not appropriate given the circuit would fail before the PCB is potentially damaged by the water. Candidates often stated characteristics of materials or products instead of properties. A clearer understanding of the difference between these is needed.

Question 1 (a)(ii) This question was generally well answered with light/lightweight being the most popular correct response. In respect of the comments made above about characteristics rather than properties, an example here for the balsa wood toy plane would be ‘easily cut’ which is a characteristic of the material and not a property.

Question 1 (a)(iii) Most candidates answered this question correctly with hard or resistance to corrosion being the most popular answers seen. Many candidates made reference to the scissors being sharp.

Question 1 (a)(iv) Many candidates were not able to recall a relevant property of the solid white board book cover. When correct responses were observed, they were mostly related to the materials rigidity or printability.

Question 1 (b)(i) A generally well answered question, with many candidates scoring at least 1 mark for recognising that the company could be much more flexible in how they run and control their business and business decisions. Lots of reference to being able to keep profits within the company but lots of misconceptions related to not having to pay tax or stick to the rules.

Question 1 (b)(ii) The first of the maths based questions where very many candidates were able to correctly work out the mass the investment would be £45,000. Many responses were seen whereby candidates had simply multiplied the £150,000 by 1.3 to get an answer of £195,000. Had they then taken away the original sum of money they would have had a correct answer of £45,000 for the full 2 marks.

Question 2 (a) This question was overwhelmingly poorly answered with isometric being offered most frequently.

Question 2 (b) This was answered reasonably well with the most common answers being responses related to the concrete being fireproof or related to the concrete being heavy and therefore stable.

Question 2 (c) This was answered reasonably well with the most common answers being responses related to the availability of the candles and users likely to have some at home already given they were of a standardised size.

Question 2 (d) This maths question provided some challenge, especially at the point at which unit conversion took place making the numbers manageable for candidates. It is important to note here that candidates should always be encouraged to show their full working out for all maths questions. In this instance if a candidate had an answer of 163 or a factor of 10 of 163 then it may still have been possible to be able to award 3 of the 4 marks due to error carried forward (ECF) with the issue being related to the conversion of units. It was encouraging to see more candidates showing a logical sequence to their work in how they laid their responses out, giving a note to explain what they were doing, such as volume of cuboid and volume of cylinder for example. This approach is to be encouraged as much as possible.

Question 3 (a) A good number of candidates were correctly able to identify a softwood with pine or cedar being the most frequently seen correct responses.

Question 3 (b) A mixed set of responses from candidates with a good number scoring at least 1 mark, most commonly for softwoods growing faster or softwoods being cheaper. On many occasions, responses were observed offering softwoods grow fast and are cheaper. This type of response can only be awarded 1 mark because the question is an 'Explain' type question which requires a linked justification. The example cited above is essentially two give responses.

Question 3 (c) Nearly all candidates attempted this question with a reasonable proportion getting the correct answer of $1/10^{th}$ or a version of that such as 10/100ths or $30/300^{th}$ for example. The most commonly observed incorrect response was a calculation to show how much timber had been used i.e. $9/10^{th}$.

Question 3 (d) This appeared to be a very well answered question with candidates most commonly coming up with a response relating to the fact that the mild steel fixing would corrode for 1 mark. Fewer linked responses were observed but when seen, appropriate reference to the frame coming apart or the joint failing were in evidence.

Question 3 (e) A mixed set of responses but a good number of correct responses seen for the full 4 marks, most often due to the material being impact resistant and then either being lightweight or its ability to be recycled, with fully linked justifications.

Question 4 (a) Generally answered well with a reasonable proportion of candidates demonstrating some knowledge of polyester, with waterproof being the most frequently observed correct response with the linked justification of protecting the laptop inside from liquids and rain.

Question 4 (b) A maths question with a very large proportion of candidates being awarded full marks for a correct answer of 128g that had been calculated using a range of methods.

Question 4 (c) Many candidates offered a definition of a LCA as opposed to an explanation of an outcome of a LCA that could help reduce the environmental impact of the laptop bag.

Question 4 (d) This question worked very well as a discriminator at the end of Section A. Many candidates failed to read this question carefully enough before starting their response. Many talked solely about remote working with its pros and cons but did not relate that to the features of a laptop. Some even purely discussed laptop bags. Many candidates failed to expand their answers to enable marks to be awarded e.g. "They are portable" rather than "they are more lightweight and compact which means they are easily portable". Many candidates discussed Apps and software rather than the laptop itself which was not always creditable. Many candidates wrote a page describing the features of ‘Teams’ or ‘Zoom’. The question performed well by providing a range of responses about fair trade across the whole range of marks available.

5a	This was a generally well answered question and there was a lot of good practice seen in learners' responses. It is important to remember that this question is at the start of the specialist Textiles section and so therefore the responses need to have a Textiles bias to them. The most frequently missed mark by learners was for the specification point 'be able to be fastened by the child'. Here examiners were looking for a separate point to the adjustable fastening - learners need to say how the fastening was suitable for children's use. Many learners label the specification points 1-6 and then label their diagram and annotations accordingly – this seems like good practice and allows learners to see clearly if they have answered all parts of the design question.
5b	There were mixed responses to this question. Some learners have a tendency to repeat what is already labelled on the diagram without explaining their thoughts further. Many learners picked up on the usefulness of the clear acrylic screen and could link this to a developed point about hand and eye coordination. Many also discussed the difficulty that the multiple steel balls could pose and that the start and finish where not clearly labelled on the actual toy itself.
6a	This was generally a very well answered question. Where marks were not awarded it was often for an incorrect use of the term 'shiny' as silk technically has a lustre due to the smooth filament fibres. Many learners could label two correct characteristics of silk which were applicable in the context of the product being a wedding dress. Many learners also went on to justify these characteristics with well explained answers.
6b	There were very mixed responses to this question. Many learners could demonstrate correctly how to carry out the boning technique and a good range of diagrams and notes were provided by many learners. It is important to note that this question does ask for notes and sketches in the answer – if a learner does not use both techniques of communication then they are unable to be awarded full marks.
6c	This was generally answered well by most learners who mainly referenced religious and cultural differences in their answers. Some learners did miss out on the second mark as they failed to provide a developed answer.
6d	This question was mostly answered quite poorly. Many learners could not name correct techniques for reducing fullness which are listed in the specification. Where learners did name correct techniques they often developed these answers but not fully enough to be awarded full marks. It is important to note here that when providing explanations they must be different for the two techniques – marks cannot be awarded for repeated points made.
7a	This was a well answered question by most learners who could name a suitable fastening to be used on the bag tab.
7b	Responses to this question were quite poor. Where marks were accessed it was normally due to the precise nature of using CAM to create identical pieces. There were many learners who gave simplistic answers such as quicker, cheaper, faster but did not provide any context to these claims.
7c	This question was generally poorly answered by Textiles learners – it was clear in many cases that they did not know how to use an isometric grid to communicate design ideas.
7d	This was a fairly well answered question with learners achieving a wide range of marks. If a learner did not score any marks it was commonly because they were discussing advantages rather than disadvantages. Many learners struggled to develop their answers fully enough however to be awarded full marks. Common answers seen include he template could be wrong to start with and the template could get lost or damaged.
8a	Most learners did list the correct benefits of the blended fabric in this question. Common answers seen were centered around the hydrophobic and stretchy nature of the fabric.
8b	This was generally a poorly answered question. If a learner did score any marks it was mainly about the cost of producing a material from multiple fibres. Very few answers were developed enough to be awarded the full three marks.
8c	This question was well attempted by most and a good spread of marks have been achieved by learners. Most could access some marks discussing the QC checks. Some learners discussed the QC checks that would have taken place on the fabric as opposed to the shorts and so scored 0 marks.
8d	There were mixed responses to this question. Some learners may have repeated information out the of question or discussed a lot of generic information about the environment which resulted in low marks being awarded. Those learners that managed to include all three aspects of the social factors into their

	answer and discuss their answers logically achieved higher. This is a level based question and as such examiners are looking for developed, well balanced responses for the highest marks to be awarded.