



Examiners' Report June 2011

GCSE Design & Technology: Textiles 5TT02 01



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Introduction

This is the first year that a whole cohort has sat the new specification. As this paper is no longer tiered it has the benefit of testing the candidates' knowledge and understanding of a range of specific Textiles points and the application of these in one format. Multiple choice questions introduce the candidates to a range of areas; however these will not be included in the report and were computer marked. This report will provide clips that exemplify candidates' work across the whole paper, together with tips and/or comments. The main exemplification will come from a selection of questions which required more complex responses from candidates. Low level responses are acceptable at the start of the paper where it is important for there to be access for all candidates. There is a design question in the middle worth 16 marks which provides some continuity from the old paper. As the paper progresses the level of complexity increases in each question and a range of skills are tested.

As a whole this paper performed well allowing candidates to demonstrate their knowledge and understanding. This was particularly evident as candidates performed well in the following questions:

- 11a
- 11b
- 11d
- 12
- 13b
- 14d

Candidates were less successful in:

- 11ci
- 11g
- 13d
- 14aii
- 14c
- 14f

Candidates had to display a breadth of knowledge, some analysis and evaluative skills to gain full marks in some questions. Where this was necessary the percentage of full marks achieved dropped dramatically. This was observed when candidates had to put together a structured piece of writing, supplying evidence, evaluative comments and comparative reasoning. Future examination preparation will need to take into account not just the breadth of knowledge required to be demonstrated (as early on in the paper as the 1st ten multiple choice questions), but also the application and understanding to suit the end use presented. The Quality of Language and Communication skills required to compose a successful piece of extended writing should also be addressed. Specific recall knowledge questions, for example Q11d and 13b were answered much more successfully.

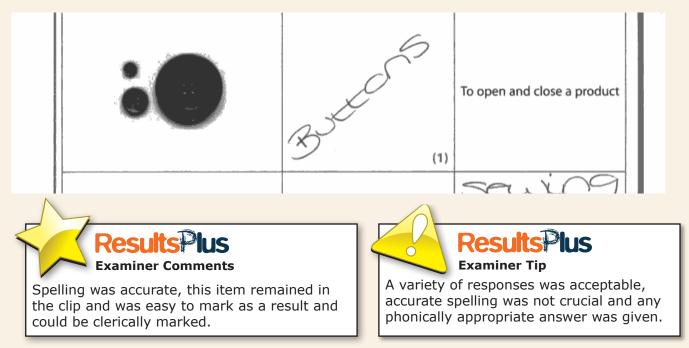
Questions that were good indicators of higher achieving candidates were:

- 11f full marks (2)
- 12 high to full marks (15-16)
- 14c high to full marks (3-4). 4 being extremely rare.
- 14d full marks (2)
- 13d & 14f high to full marks (5-6)

Question 11 (a) (i)

The response sought from the candidates was to see if they could identify a common component used in making textiles products.

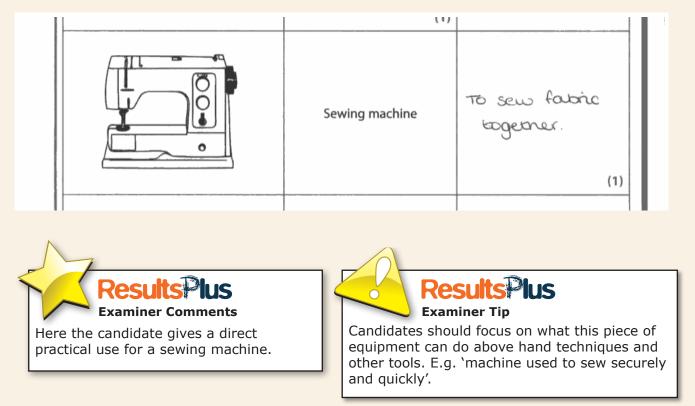
There was a high level of Candidate responses so few blank boxes were seen.



Question 11 (a) (ii)

This question is to test the candidates understanding of the practical use of common workshop equipment.

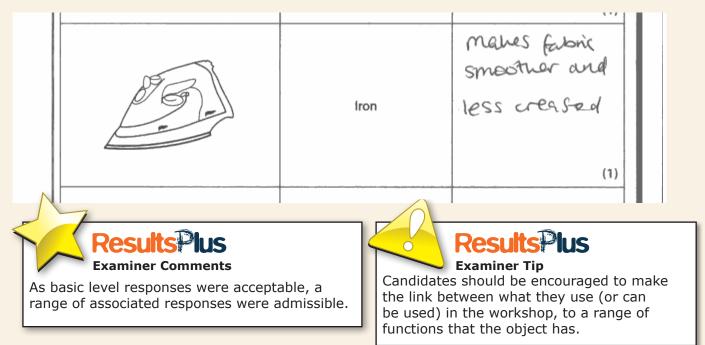
Basic level responses were required here and fairly general comments were acceptable



Question 11 (a) (iii)

As the previous question this one also tested the candidates understanding of the practical use of common workshop equipment.

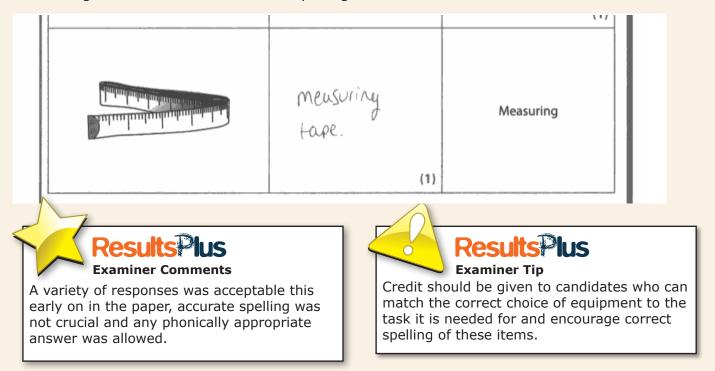
Most candidates correctly identified that this piece of equipment got rid of creases, made creases or could be used to fuse non-woven fabrics.



Question 11 (a) (iv)

The response sought from the candidates was to see if they could identify a common component used in making textiles products.

Most candidates gave a response to this item, although there was a wide variety of interesting alternatives to the correct spelling seen.



	Tape measure	Measuring
Results Ius Examiner Comments	(1)	

Other commonly used alternative combinations can be given credit to.

Question 11 (b)

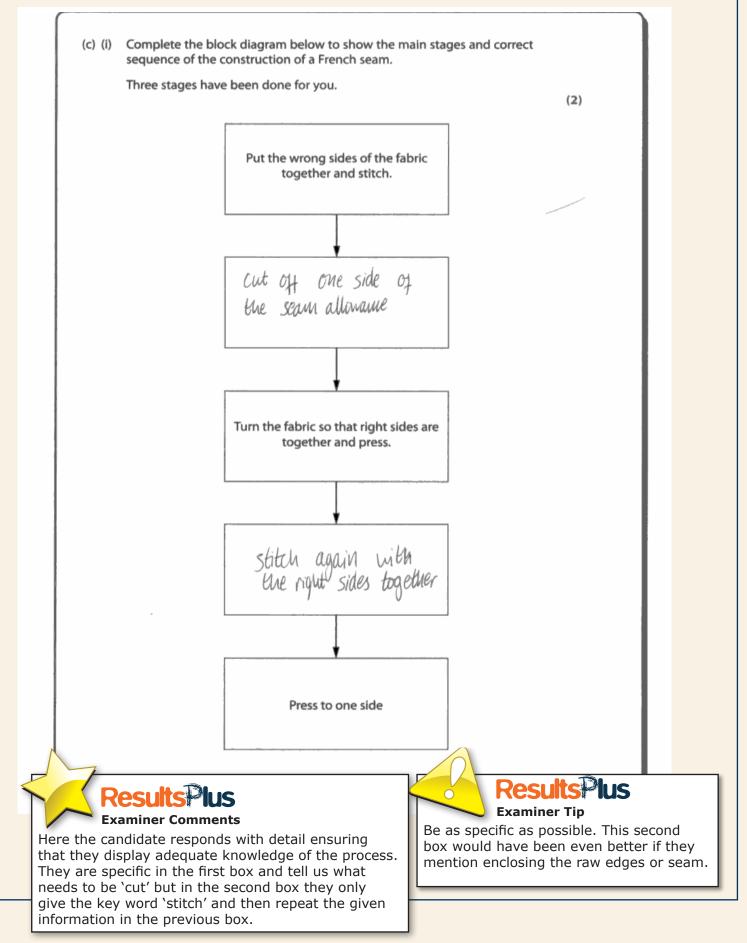
Here candidates are asked to apply specific knowledge of a fabric. They should comment on what benefits its construction, aesthetic and functional characteristics bring to its suitability for use in an item of childrenswear. For full marks they needed to give a valid corresponding reason.

This candidate clearly identifies a characteristic and gives a matching reason. Durable/ strong were the two most popular characteristics given.

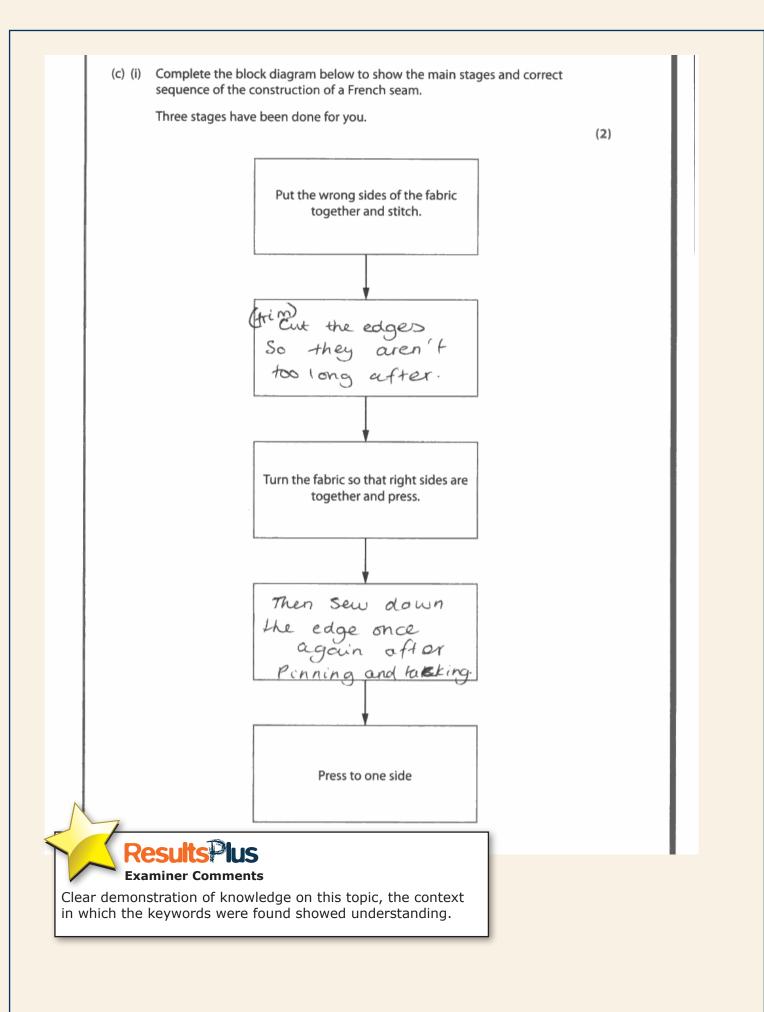
(b) The drawing below shows a child's dungarees made in corduroy fabric. Give one characteristic of corduroy that makes it suitable for the child's dungarees. For your characteristic, give one reason for your answer. (2) Characteristic Durable Reason children are when running **Results**Plus **Examiner Comments Examiner Tip** Candidates should understand the properties Candidates seemed very aware of the and characteristics of fabrics and also get practical needs of children's clothing. They used to matching these to suitable end uses. could then relate this to the characteristics of the fabric (corduroy) would need to have.

Question 11 (c) (i)

The task here was to identify and fill in the missing parts of the sequence diagram for constructing a French seam. Although specific responses were desirable, detail and focussed knowledge was lacking from a considerable amount of candidate answers.



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Question 11 (c) (ii)

Candidates had to apply the advantages of the French seam to the product, giving a suitably connected explanation of that point.

Application of knowledge was sought here about the previous joining (construction) technique.

(ii) French seams and plain seams are both su make a child's garment. Explain one advantage that a French sean garment.	
It is also stronger and many that an in children are playing.	
Results Plus Examiner Comments Well identified point 'stronger' with the connecting statement of 'withstand roughness - whilst playing' for the supporting comment.	Results Pus Examiner Tip Candidates were asked to recall two chemical finishing processes in this 'name' question. This required straight forward 1 – 2 word responses.

Question 11 (d)

Candidates were asked to relocate two chemical finishes processes in this 'name' question. This required straight one – two word responses.

Mixed responses were seen overall. Many could put 1 or 2 appropriate chemical finishes into their responses. Unfortunately a number of Candidates thought dyeing and other decorative techniques could qualify.

(d) Bleaching is a chemical finishing process used on fabrics.	
Name two other chemical finishing processes used on fabrics.	
	(~)
1 lamination	
2 uniterpristif coating	
ResultsPlus	ResultsPlus
Examiner Comments	Examiner Tip
Knowledge of a wide range of classification of	Observations of the different categories
finishes (in the specification) is necessary.	within the specification should be made clear to candidates as biological modern and smart
	finishes, would be classified under separate
	headings & questioned as such.

Question 11 (e)

Two brief reasons were required to answer this section on quality control.

The candidate highlights the need for products to be of a "certain standard", and then states that "mistakes" are costly. So attaining maximum marks.

(e) Give two reasons why quality control is needed in manufacturing	g. (2)
1. To make duse that the garment much wet by the retailed is it is withable 2. B. that any mistakes can be four rectified / reduce much to	to be sold
Results Plus Examiner Comments	
Candidates who mentioned 'safety' issues were not able to access any marks as this did not answer the question posed on quality.	

A wide range of responses were given. The task was to find a second completely different reason differentiated many candidates. Some merely repeated their first reason in an alternative way.

(e) Give two reasons why quality control is needed in manufacturing. (2)product does the not Qet. Yent manuf act rer the to ONROR the Pro stanglar Qy Etail. Phis **Examiner Comments Examiner Tip** This Candidate shows clarity of thought and The first response clearly addresses the good communication skills as they explain issues that manufacturers face with loss of their knowledge. reputation, whilst the second "high standard" uses language that does not repeat the question's wording to give the reason.

Question 11 (f)

Identifying why the layplan of pattern fabric needs careful consideration required the candidate to extend their knowledge past the normal needs of layplanning on plain fabric.

(f) Give two reasons why the layplan of a garment made from patterned fabric has to be carefully considered. 1 the pieces have to be cut out with the pattern fairing the the garment is made the pattern many convespond at joins/seamas **Results**Plus **Examiner Comments Examiner Tip** Responses needed to give specific Ensure that responses relate directly to the references to the concerns of using question and are not general comments that patterned fabric in order to be credited. latch onto one part of the question, not fully comprehending and addressing the main point. (f) Give two reasons why the layplan of a garment made from patterned fabric has to be carefully considered. (2)1 so the pattern is continuous all the way around the garment. pattern is the right war not the opposibe **Results**Plus **Examiner Comments Examiner Tip** This Candidate ensured two marks by being A number of candidates who only mentioned descriptive about the patterns progress around 'waste' failed to gain marks and should endeavour to practise examination techniques the garment and the direction of the pattern that needs to considered. regularly as well as understanding different methods and considerations of layplanning.

Question 11 (g)

The question on the benefits of batch production for the manufacturer asked candidates to stretch their knowledge once again. Gaining one mark was generally accessible, achieving the other two was much more thought provoking.

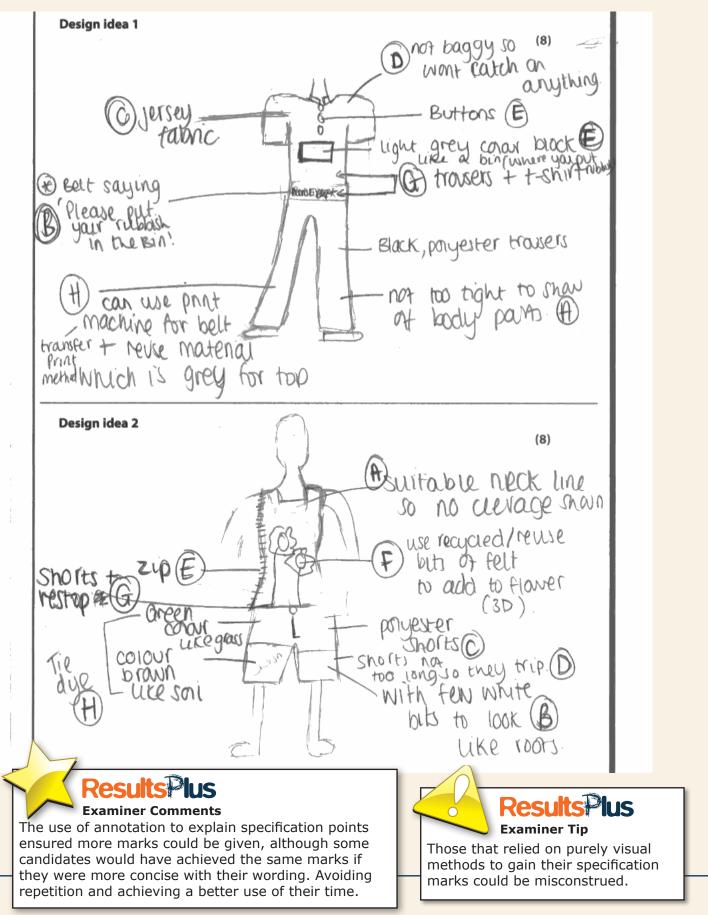
Full marks were rarely achieved and this question gave an indication of a high achieving candidate.

(g) Give three benefits of batch production for the manufacturer. (3) D.C. Lach CIQIN season trends rends **Examiner Comments** As the specification states candidates should ensure that they learn and can demonstrate knowledge of as many benefits as possible of manufacturing, including the advantages and disadvantages.

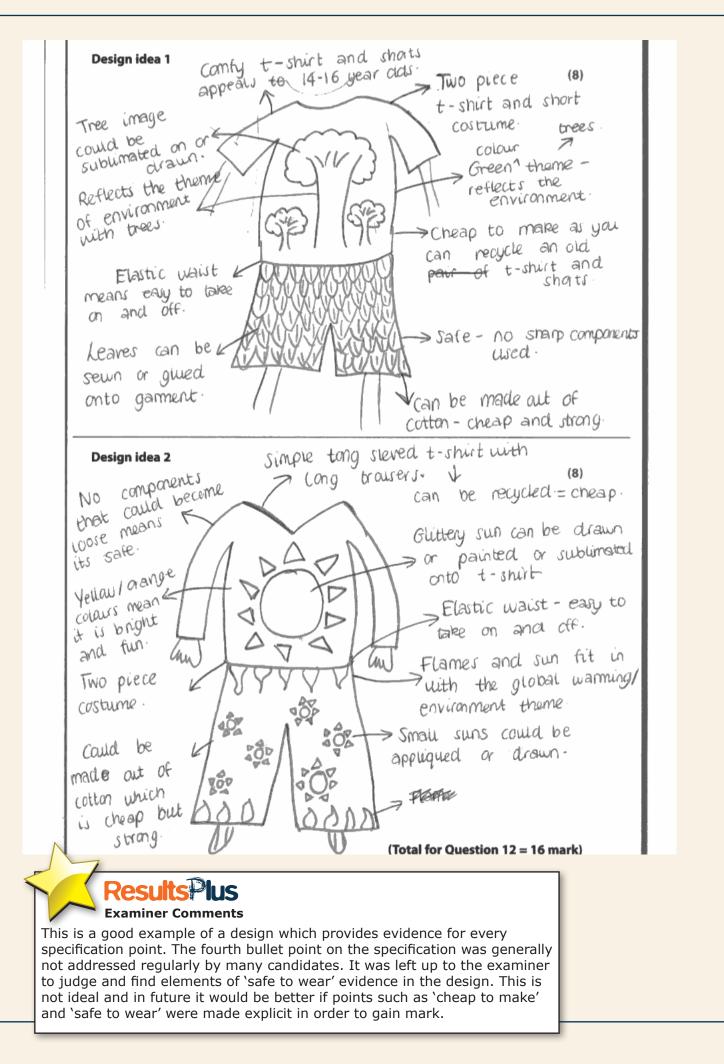
Question 12

Success in the design question relies on meeting all the specification points and is often successfully completed by a high level of candidates.

This candidate addresses each point in a concise, clear and easy to read format that ensures every word is legible.



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Question 13 (a)

As knowledge and understanding of fibres and fabrics form the basis for a great part of Textiles, this question tested the knowledge and suitability of the property of nylon (a popular synthetic fabric) to an end use.

This candidate states one of the most obvious properties of nylon and follows it up with a linked justification. Their second property and comment is equally accurate and well justified.

(a) Give two properties of nylon that make it a suitable fabric for the trousers. For each property, justify your answer. (4) Property 1 Strong Justification he can wear it α MONT NP ELDERE)es pay rease stant. Justification aup \cap time Nage **Results**Plus oculte¤luc **Examiner Comments Examiner Tip** Candidates should practice identifying and The task of naming and justifying both matching the positive and negative properties properties and justifications stretched and of a wide range of fibres and fabrics to equip differentiated many candidates. them to answer this type of question.

(a) Give two properties of nylon that make it a suitable fabric for the trousers. For each property, justify your answer. (4) Property 1 Aardwaring Hardwearing Justification H cuill last CA. leng time meanin you will replace have ŧø trousers Property 2 Crease Resistance Justification woning the fabric Less Cnes Spent **Examiner Comments** Strong and durable were once again the most popular responses seen, with easycare and crease resistance as the next most popular. These are key features of this fabric.

Question 13 (b)

Any two key stages, from the design and application, were required to gain full marks.

Their seemed to be theoretical knowledge displayed of industrial practices as well as workshop knowledge in the successful responses given.

(b) Describe briefly how transfer printing is carried out. (2)The design is printed on to T-SHIRT TRANSFER PAPER. It is men the out and haid on to me chosen material. The material is mon pressed until ready to remove the paper Vistepe it mon Lasa. al. **sults^plus Results Plus Examiner Comments Examiner Tip** Encourage candidates to use technical This response demonstrates a good example language and state any relevant of knowledge that seemed to be gained equipment in their responses. in the workshop. The language used is technical 'transfer paper' and the appropriate equipment to transfer the design is commonly found in workshops. (b) Describe briefly how transfer printing is carried out. (2)motif design is made on a computer The then printed onto sublimation paper. and fabric and are then The paper and roller where the heated through assed transferred onto the **Examiner Comments** This candidate shows extensive knowledge of this process and refers to 'sublimation paper' in its correct context. The equipment referred to is more industrial and an excellent alternative to the one stated previously.

Question 13(c) (i)

Candidates needed to briefly mention 'why' the outfit has high visibility and 'how' it achieves it to gain the 2 marks on offer.

(i) has high visibility (2)	
It has very smiching replective Colours. Bright Dives, cronges and pluorescent Colours	
made the artif spind out as they are	
Shong Contracting Colours.	
Results Plus Examiner Comments	
This candidate offers 2 explained points. Although they are not in the correct order both sets of colours are justified.	

Question 13 (c) (ii)

It was necessary for candidates to explain how the outfit is adjustable by identifying these aspects of the clothing and then extending their vocabulary to explain how that was achieved.

The elasticated would allow yeeppe of different Sizes to fit into the travers. The adjustance Welcre attached do the reflective chraces allows utre trightness / length of the Graps to the outered.

ResultsPlus

Examiner Comments

For questions 13ci and 13cii, those candidates that used the same language as the question 'e.g. adjustable or visible' did not achieve the second mark available.

Question 13 (d)

These extended response questions gave the candidates the opportunity to compare and show their evaluative skills. This meant that candidates who simply named one thing against another without stating its advantages over the former could not break into the higher level descriptor.

A range of responses were required and technical language could be rewarded as well as their ability to structure an extended piece of writing.

This candidate shows higher order skills and presented a well-structured and easy to follow text that was not frequently seen in this question.

*(d) Evaluate the suitability of Outfit A compared with Outfit B for use at a fancy dress party. (6) OUTCIT A and B both have adjustable braces, but A uses butto velcro, 3 B uses buttons. I think & Velcro is better as less fieldly to buttons and is very secure. It also E can be castened anywhere, unlike positioned bottons. Outcit A aw has an elastic waiste band, so it can fit more sizes than outfit & t is more compartable, which is what's needed for a clown that moves a lot. Both have T-shirt and mousers, but Outfit A is more colour cui with patterns + pictures. This corks more compared to a dame blue. exciting which is needed for a kids entertainer. Outcit A will also be more compartable when it concer to mousers as cotton is very sort (good Handle). Noton Housers will be oncomportable and possibley matate the skin. Therefore I think Outcit A is the more suitable one as it looks more exciting and colourcoul, which is good for a childs entertainer and it looks more practical for 2 clown that will be moving around 2 lot for 2 long time

ResultsPlus

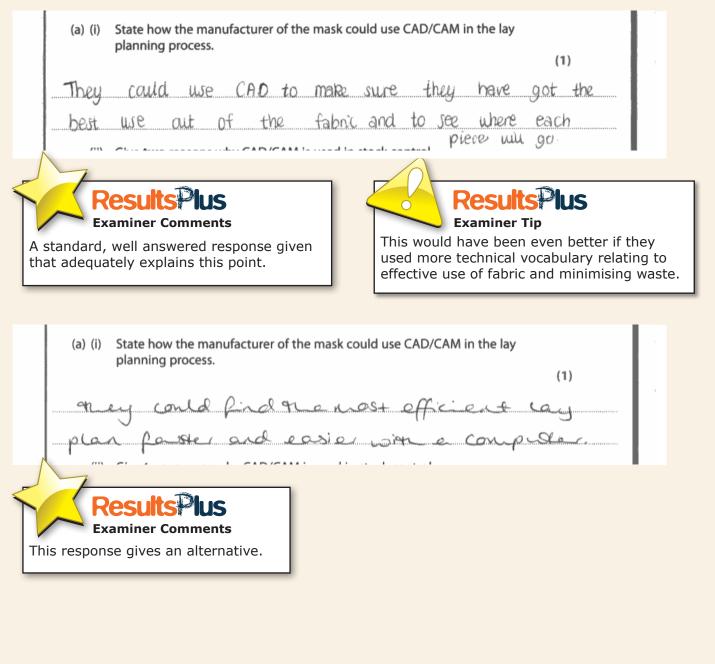
Examiner Comments Throughout this piece of extended writing references are made to differences that each point will make to the user or target audience. Thus, they are giving evaluative comments and comparing points against each other using evidence gained from the images. E.g. "velcro is better as it's less fiddly to buttons and more secure". Colours and decorative motif are related to the "entertainer". Technical language is used well like "good handle" when describing cotton.

Results Plus

Reading of the question is crucial, as the amount of candidates that scored no marks at all because they wrote about sustainability instead of the appropriateness to fancy dress, was unfortunate.

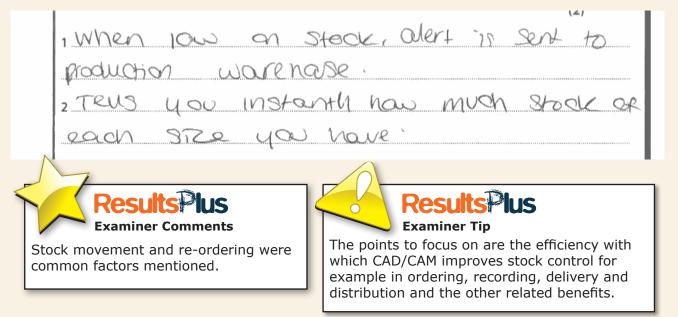
Question 14 (a) (i)

A common question starts of Q14. A familiar fairly non demanding response is required for a low level mark.



Question 14 (a) (ii)

Candidates needed to give reasons for the use of CAD/CAM in stock control and this should be linked to the improved efficiency, accuracy, speed and economic benefits of tracking stock (materials, components and products) using this method in manufacturing.



Question 14 (b)

This question required a clear description that covered the encapsulation of gas/liquid or solid for 1 mark and the detailed release of the substance for the 2nd mark.

Steady Microscopic particles, nanoparticles act as tiny capsules with trapped scent inside them. When the fabric is and friction caused the microused capsules are burst releasing scent. This fabrics desirable aives odours. **Results**Plus **Examiner Comments Examiner Tip** There was a great sense that the Although many types of gas/liquid or candidate understood this process and solids can be encapsulated, candidates are is able to give a full account of the "tiny encouraged to be specific mention of what capsules" as the encapsulation process they are referring to, e.g. 'dye' if they are to and then the catalyst that releases them. show full knowledge of his topic.

, i i i i i i i i i i i i i i i i i i i	little bubbles which have a
Results Plus	Results Plus
Examiner Comments	Examiner Tip
Candidates could demonstrate	Encourage candidates to use appropriate descriptive
knowledge by giving a descriptive	language so that micro is not just little but 'tiny' or
account of the process e.g. "bubbles"	'miniscule'
as this shows an understanding of	An appropriate example sometimes helps candidates
the shielding process undertaken in	to remember and show levels of knowledge e.g.
microencapsulation.	'embedded in socks, bedding, and medical dressing'

Question 14 (c)

Candidates had to choose one dyeing stage in which they could show their knowledge of an advantage and disadvantage of the process. This asked them to distinguish why manufacturers chose one stage over another and how predictions play an important role in the decisions made.

There seemed to be a lack of knowledge demonstrated by candidates on this topic. Responses generally were better in the advantages section for the fibre choice but many struggled to relate the importance of the timescale that manufacturers had to make decisions on fabric and garment colouration.

The	e dyeing of a product can be carried out at var	ious stages of production.
(c)	Explain one advantage and one disadvantage one of the following stages of production:	e to the manufacturer of dyeing at
	fibre stage	
	fabric stage	
	garment stage.	
	Duala a stara	(4)
	Dyeing stage	
	gorment Stage	
	Advantage	
	ice the gament !	
be able to decide exactly wear you want		
to	a better punish	
	Disadvantage	
16 yeu male a mistake when dying it		or when dying it will
	run the garment so you will have to start	
age	un aralluy wastr	ig money and tune.
	ResultsPlus	ResultsPlus
	Examiner Comments	Examiner Tip
	This candidate was able to identify that lecisions can be more effective at this lecisions and so gained credit here.	The response given of dying errors and the related cost implication gave a justified disadvantage.
		Candidates should apply their knowledge and
		familiarise themselves with processes involved in the manufacture of products, Topic 3.3 of the
		specification. This would give them an understanding
		of the whole process a product will go through after the design decisions have been made.

The dyeing of a product can be carried out at various stages of production. (c) Explain one advantage and one disadvantage to the manufacturer of dyeing at one of the following stages of production: fibre stage fabric stage garment stage. (4) Dyeing stage tibre stage Advantage evenly distributed as it is able to each individual fibre creating vivid 15 a into colours Disadvantage wastage if the fibris are not produces ιt neuring energy and water used all unnessasanyty. was **Examiner Comments** "Evenly distributed" dye and the creation of "vivid colours" adequately explain the benefits of dyeing at the fibre stage.

Question 14 (d)

This item asked for specific knowledge of a biological finishing process. A variety of key words such as 'enzyme, cellulosic, soft, smooth, pill and bobble were watched out for to demonstrate knowledge of this.

Good levels of response were seen in this question.

 Describe the biopolishing process.
 (2)

 An Orzyme is full onto a fabric that soptens the fabric into a smoother and shury in the fabric into a smoother and shury fabric and its mainly used in usuae user una tracksing.

 So the other and abstracts are improved.

 Results Plus

 Examiner Comments

 Key words and technical terms were used well. As in this example you can see "enzyme" is used and its effects back up their understanding of the process.

Question 14 (e)

The correct benefit of nanotechnology was sought by candidates who then had to apply this knowledge to the end use of a medical mask.

(e) Describe one benefit of using nanotechnology for making a medical mask. (2) They have microscopic particles so it wanted be very diffcult for avergens or bacteria to get in , tout man aborton as been wouldn't be able to pass twough. 19150, panoparticles have specific properties so callel be made to protect from gems. tsPlus **Examiner Comments Examiner Tip** Very few candidates gained full marks for this The overwhelming majority of correct question. "The ability to manipulate properties in fibres responses where based on the masks at a molecular level" does not seem familiar to many ability to stop bacteria passing through. candidates yet and this is an area for improvement.

Question 14 (f)

Many candidates could explain how to' minimise waste' in manufacturing and the higher marks were awarded to those candidates that considered applying that knowledge to the end use specified of surgical garments. These products have the added consideration of the need to be either sterile to be reused or disposable so as to not cause contamination.

As in the previous level marked question, (13d) candidates struggled to clearly relate to the requirements that are needed for this product and considerations that follow when considering waste management.

*(f) Textile manufacturers need to consider the impact their products have on the environment throughout the product's life cycle. Evaluate how waste production can be minimised in the manufacture of surgical garments throughout the product life cycle. (6) a surgical gament is first made it could be When fibres from old disinfected wing either recycled oreated as organic cotton that isn't grown rgical gament or chemical like tertilizer that effect the environment Wing Abo in the production of the gument smart materials to make the surgical rould uned ocun anti-bacterial safe for an more than one us maining i ol in a landfill. Filso it the garments ar Put Jibre cotton a natural this mains decompose faster abl to causing environment. Another Way the Impact Caupe less impact to the environment world in the country they are gament neede 1) COR transport needed maining. less is released

Results lus Examiner Comments

The response is well structured and mentions a variety of related points. Right from the beginning this candidate refers to the benefits of "organic cotton", use of "smart materials", "landfill issues" and decomposition.



Candidates should try to highlight the issues that are most pertinent to the products end use as well as its life cycle.

Summary

The multiple choice section performed well with high achievement on most of the questions. This shows that candidates do have very good general factual knowledge. With the help of Results plus, centres can now go on to individualise their attainment and see where they may need to support their candidates further. Questions that require justification, analysis, explanation and evaluation are performing less well than those that require short answer responses. The design question should be clarified with annotation but this should be succinct, clearly laid out and not repetitive in order to score well. Candidates are advised to read the question carefully and ensure they understand what is being asked of them (especially in extended responses) so that they can direct their answers to the specific question set.

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