

Mark Scheme (Results)

Summer 2010

GCSE

GCSE Design and Technology:
Textile Technology (3971)
Paper 2F
Foundation Written Paper.

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General Marking Guidance

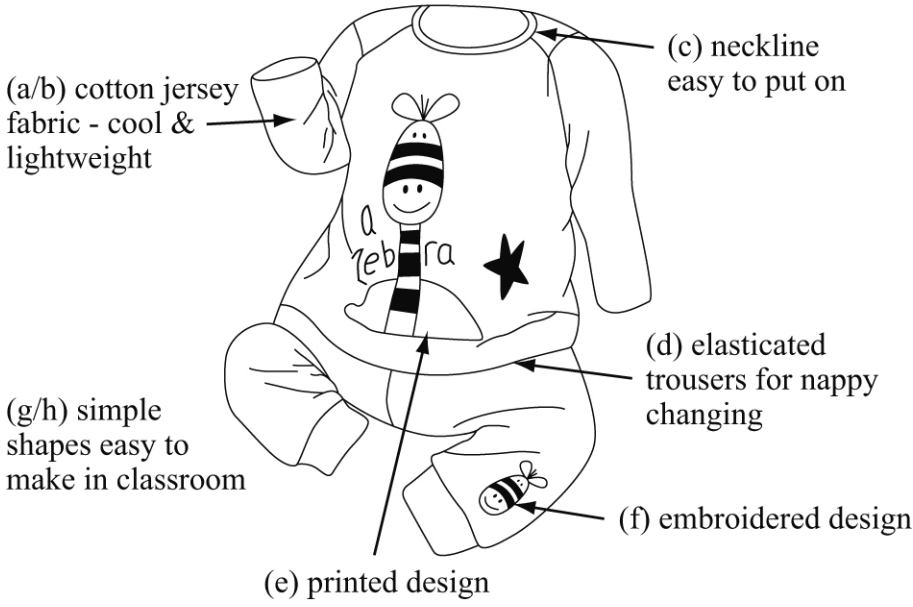
- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

Question Number	Answer	Mark
1(a)	<p>Name and use of the following:</p> <p>Name: Needle (1) Use: For sewing/tacking/stitching/sewing buttons (or any component) (1)</p> <p>Name: Button (1) Use: Fastening/do-up (1)</p> <p>Name: Tape measure (1) Use: Measuring fabric/body measurements/sizes/seams/hems (1)</p> <p>Name: Ironing board (1) Use: Putting garments/fabric on for ironing (1)</p> <p>Name: Overlocker (1) Use: To sew & neaten seams /stitch knitted fabrics/trim as it stitches (1)</p> <p><i>Accept Phonetic spellings</i></p> <p style="text-align: right;">(10x1)</p>	(10)
1 (b)	<ul style="list-style-type: none"> • Belt (1) • Shoe (1) • Pocket flap (1) • Bag (1) • Top of trousers (1) • Front of kilt (1) • Dungaree strap (1) <p style="text-align: right;">(2x1)</p>	(2)
1 (C) (i)	<ul style="list-style-type: none"> • Zip (1) • Velcro (1) <p style="text-align: right;">(1x1)</p>	(1)
1 (C) (ii)	<ul style="list-style-type: none"> • Zip (1) • Buttons (1) • Velcro (1) • Ribbon ties (1) • Poppers/snap fastening (1) <p style="text-align: right;">(1x1)</p>	(1)
1 (C) (iii)	<ul style="list-style-type: none"> • Hook & eye/bar/loop (1) • Button (1) • Velcro (1) • Poppers/snap fastening (1) <p>(Each answer can only be used once)</p> <p style="text-align: right;">(1x1)</p>	(1)

1 (d)	<p style="text-align: center;">Production</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 80%;">Fixed numbers of products made</td> <td style="width: 20%; text-align: center;">X</td> </tr> <tr> <td>Large numbers produced 24 hours a day</td> <td></td> </tr> <tr> <td>Used to make tights and socks</td> <td></td> </tr> <tr> <td>Used to make fashion items</td> <td style="text-align: center;">X</td> </tr> <tr> <td>Workforce only complete one operation as the products move around the factory</td> <td></td> </tr> <tr> <td>Skilled workers carry out more than one part of the construction</td> <td style="text-align: center;">X</td> </tr> </table>	Fixed numbers of products made	X	Large numbers produced 24 hours a day		Used to make tights and socks		Used to make fashion items	X	Workforce only complete one operation as the products move around the factory		Skilled workers carry out more than one part of the construction	X		(3)
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Used to make fashion items	X														
Workforce only complete one operation as the products move around the factory															
Skilled workers carry out more than one part of the construction	X														
1 (e)	<ul style="list-style-type: none"> • Lays pieces in the most economical way/ saves money (1) • Saves wastage (1) • Speeds up production (1) • Saves time (1) • Takes up less space (1) • No need to spread out large pieces fabric (1) • Costs the garment (1) • Can save layout for future use (1) • Easily modified for style changes (1) <p style="text-align: right;">(4x1)</p>		(4)												
Total for question 1			22 Marks												

Question Number	Answer	Mark
2(a)	<ul style="list-style-type: none"> • Twill (1) <p><i>(only answer)</i></p>	(1)
2(b)	<ul style="list-style-type: none"> • Strong/hardwearing/durable (1) • Can shrink if not treated (1) • Flammable (1) • Poor elasticity (1) • Absorbent (1) • Poor resilience/ will crease (1) <p style="text-align: right;">(3x1)</p>	(3)
2(c)	<ul style="list-style-type: none"> • Will stretch (1) • Easier to put on (1) • Fit better/closer (1) • Comfortable to wear (1) • Retains shape (1) 	(1)
2(d)	<ul style="list-style-type: none"> • Hardwearing/durable/strong (1) • Absorbent (1) • Cool to wear (1) • Lightweight (1) • Comfortable (1) <p style="text-align: right;">(2x1)</p>	(2)
2(e)	<ul style="list-style-type: none"> • Crease resistant (1) • Easy to wash (1) • Easy to iron (1) • stronger/more durable (1) • Better flame resistance (1) • Cheaper (1) 	(1)
2(f)	<ul style="list-style-type: none"> • Cut pieces of different fabrics to be tested (1) • Put different stains on each - oil, biro, lipstick, grass etc (1) • Wash (1) • Leave to dry (1) • Compare to see how well the stains have come out (1) <p style="text-align: right;">(3x1)</p>	(3)
2(g) (i)	<ul style="list-style-type: none"> • Temperature to wash the garment (1) • Hand or machine wash (1) • Ironing temperature (1) • Tumble dry instructions (1) • Dry cleaning instructions (1) • Whether to wash separately (1) • Fibre content (1) • Flammability (1) <p style="text-align: right;">(4x1)</p>	(4)

2(g)(ii)	<ul style="list-style-type: none"> • To show them how to look after/wash/iron/dry/the garment (1) • To show how to dry clean (1) • So the garment stays in good condition / lasts longer (1) 	(1)
2(h)	<ul style="list-style-type: none"> • Cost less (1) • Accurate/consistent finish (1) • Products made quickly /on trend (1) • More choice of styles (1) • More choice of colourways (1) • More choice of patterns/decoration (1) • Changes easily introduced (1) <p style="text-align: right;">(2x1)</p>	(2)
2(i)	<ul style="list-style-type: none"> • Treating dyed water before it is released/ reuse waste water (1) • Not releasing water into rivers (1) • Using natural dyes (1) • Use of more efficient machinery / production methods improved to consume less energy /use less water (1) • Use renewable sources of energy (1) • Reduce emissions / Fit scrubbers to chimneys (1) • Recycle/Reuse waste /don't dump waste (1) • Don't transport long distances (1) • Use fewer natural resources (1) • Use fabric made from recycled fabric/plastic bottles (1) <p style="text-align: right;">(2x1)</p>	(2)
2(j)	<ul style="list-style-type: none"> • Give clothes to charity shops/recycling bins/collection bags (1) • Give to friends & relatives/ sell on e-bay (1) • Re-use out-of-fashion clothes by customising /unravel knits (1) • Buy clothes from charity shops (1) • Buy fewer clothes / clothes with reduced obsolescence (1) • Wash at lower temperatures/less frequently (1) <p style="text-align: right;">(2x1)</p>	(2)
Total for question 2		22 Marks

Question Number	Answer	Mark
3	<p>Each point of the specification has two marking points.</p> <p>1 mark should be awarded for evidence of each point of specification resolved in the design.</p> <p>For each specification point with both elements viably satisfied 2 marks</p> <p>For each specification point with only one element viably satisfied 1 marks</p> <p>Where an answer does not viably answer a specification point 0 marks</p> <p>Candidates may answer any specification point in either graphical form or by annotation.</p> <p>No marks are awarded for quality of communication.</p>	
	<p>Design idea 1</p>	
	<p>Be cool to wear and use lightweight fabric</p> <ul style="list-style-type: none"> • Evidence of being cool e.g. short sleeves, type of fabric (1) • Evidence of any lightweight fabric annotated (1) e.g. cotton jersey, seersucker etc <p>Be easy to put on and take off for nappy changing</p> <ul style="list-style-type: none"> • Evidence of suitable fastenings (1) • Fasten easily, easy to reach (1) e.g. Velcro, poppers, <p>Be decorated using printing and embroidery</p> <ul style="list-style-type: none"> • Evidence of printed decoration (1) • Evidence of embroidery (1) <p>Be made using a process suitable for production in a school textiles room</p> <ul style="list-style-type: none"> • Evidence of a process (1) e.g. seams, fastenings, hems, embroidery techniques (CAM) • Evidence of suitability for school textiles room (1) e.g. produced using a domestic sewing machine. 	
	<p>Possible graphical solution</p> <p style="text-align: center;">Graphical Solution 1</p>  <p>(a/b) cotton jersey fabric - cool & lightweight</p> <p>(c) neckline easy to put on</p> <p>(d) elasticated trousers for nappy changing</p> <p>(e) printed design</p> <p>(f) embroidered design</p> <p>(g/h) simple shapes easy to make in classroom</p>	(8)

Design idea 2

To score a mark for Design Idea 2, each specification point must be resolved again in the second design idea but the second design idea **must be technically/conceptually different in design and construction** from the first and not a simple variation on a theme to score the mark.

Use exactly the same criteria as design idea 1 to mark design idea 2.

A different indication/design of being cool (1)

A different indication of using lightweight fabric (1)

A different method of being easy to put on (1)

A different method of being easy to take off (1)

A different method/design of printing (1)

A different method/design of embroidery (1)

A different process for making as a one off (1)

A different method suitable for production in a school textiles room (1)

Possible graphical solution

Graphical Solution 2

(e) printed design



(f) embroidered design

(a) short sleeves
+ no legs = cool

(b) lightweight
cotton/elastane
fabric

(g/h) simple to make
in classroom

(c/d) poppers

(8)

Question Number	Answer	Mark
3(b)	<p>Each point clearly evaluated</p> <p>If a candidate has indicated design idea 1 and then evaluates design idea 2 for all or part of (i), (ii) & (iii) then the idea in greater evidence should be marked.</p> <p>The evaluation of the design must contain reference to either positive or negative aspects not just simply a description of the design.</p> <p>Award 1 mark for a correct evaluation/justification relating to each design feature and how it succeeds or fails.</p> <p>Repetition of original specification scores 0</p> <p>Marks may be awarded for two justifications of one specification point</p>	
3(b)(i)	<p>(i) Evaluation of: Be cool to wear and use lightweight fabric Evaluative comments positive or negative on:</p> <ul style="list-style-type: none"> • Why the garment(s) are cool • The type of fabric chosen 	(2)
3(b)(ii)	<p>(ii) Evaluation of: Be easy to put on and take off for nappy changing Evaluative comments positive or negative on:</p> <ul style="list-style-type: none"> • How the fastenings / style of garment make it easy to put on and off • How easy it is to nappy change 	(2)
3(b)(iii)	<p>(iii) Evaluation of: Be decorated using printing and embroidery Evaluative comments positive or negative on:</p> <ul style="list-style-type: none"> • Use of printing and embroidery, why it is suitable for this type of child's garment 	(2)
Total for question 3		22 Marks

Question Number	Answer	Mark
4(a)(i)	<p>One point and reason from: Quality Point: Well made eg. stitching secure and accurate, / edges finished accurately/appropriately, /pockets/zips secure (1) Reason: Item worn by children so must be firmly stitched/components attached securely/stay looking good (1)</p> <p>Point: Durable/hardwearing fabric (1) Reason: To withstand wear and tear/ensure it lasts (1)</p> <p>Point: Lightweight (1) Reason: Comfortable to wear/ warmth without weight (1)</p> <p>Point: Good quality components (zip) (1) Reason: To withstand wear and tear (1)</p>	(2)
4(a)(ii)	<p>One point and reason from: Environmental Point: Reduced obsolescence /not a high fashion item (1) Reason: Can be handed down/reused (1)</p> <p>Point: Washed easily/machine washable at 30°C/crease resist/no iron (1) Reason: Less energy used for washing/drying / ironing (1)</p> <p>Point: Durable/hardwearing/ last a long time (1) Reason: Reduced amounts in landfill (1)</p> <p>Point: Make use of recycled materials/plastic bottles (1) Reason: Reduce environmental impact (1)</p>	(2)
4(a)(iii)	<p>One point and reason from: Safety Point: Zips easy to use (1) Reason: Children can use themselves (1)</p> <p>Point: Elasticated waist (1) Reason: Easy to put on and take off (1)</p> <p>Point: Components attached securely (1) Reason: No choking hazard (1)</p> <p>Point: No sharp/dangerous components (1) Reason: children cannot hurt themselves (1)</p> <p>Point: Flame resistant (1) Reason: No fire danger for children (1)</p> <p>Point: No drawstrings (1) Reason: Danger of strangulation/ legal requirement (1)</p> <p>Point: Correct size for child (1) Reason: No tripping /catching hazards (1)</p>	(2)

4b	<p>Two reasons given from:</p> <ul style="list-style-type: none"> • Absorbent • Comfortable/cool to wear (1) • Easy to wash/ can be washed at 30 (1) • Can be washed at higher temps to remove stains (1) • Stretches / gives in wear /allows movement(1) <p>(2x1)</p>	(2)
4c	<p>Two reasons given from:</p> <ul style="list-style-type: none"> • Produces identical results (1) • Consistent/accurate/high quality standard (1) • Can be used repeatedly / Patterns stored in memory (1) • Colours can be adjusted easily (1) • Quick /cheap to produce (1) • Easy to produce in quantity/ batch (1) • Can be easily personalised (1) <p>(2x1)</p>	(2)
4d	<p>Two properties with reasons from:</p> <p>Property: repels water and oil based spills /resists most stains (1) Reason: Easy to care for /safer to wear (1) <i>Do not accept waterproof</i> Property: Breathable (1) Reason: comfortable to wear / won't sweat(1)</p> <p>Property: Strong/hardwearing/durable/ resilient (1) Reason: needs to withstand wear and tear/ falling down /last a long time (1)</p> <p>Property: Dries quickly/ no iron/ crease resist/ wash at 30 (1) Reason: Easy to care for (1)</p> <p>Property: Lightweight/soft (1) Reason: comfortable to wear /not heavy (1)</p> <p>(2x1) (2x1)</p>	(4)
4e	<p>One reason explained from:</p> <ul style="list-style-type: none"> • To check tolerance (1) levels for accurate sizing (1) • Stitching good/secure/strong (1)so that seams will not come undone /good quality(1) • The overlocked finish (1) is consistent/accurate (1) <p>(2x1)</p>	(2)
4f	<p>One reason explained from:</p> <ul style="list-style-type: none"> • Produces a napped /fluffy/raised/pile (1) surface which makes the fabric thicker/ softer/ warmer (1) <p>(2x1)</p>	(2)

4g	<p>One example explained of how purpose is achieved:</p> <p>(i) keep the child warm:</p> <ul style="list-style-type: none"> • Zips (1) go right up to the stand up collar (1) • Fleece top (1) is made of a brushed/ warm fabric (1) • Trousers are long (1) so cover all the legs (1) • Layers (1) of clothing trap air so increase warmth (1) • High neck/long sleeves (1) keep body covered /warm (1) <p style="text-align: right;">(2x1)</p>	
	<p>(ii) be easy to care for:</p> <ul style="list-style-type: none"> • All fabrics easily washable by machine at 30 /low temperature(1) • No need to iron as all fabrics crease resistant (1) • Drip dry so quick to launder • Laminated fabric for trousers is stain resistant /easy care(1) <p style="text-align: right;">(2x1)</p>	(4)
Total for question 4		22 Marks
Total for paper		88 Marks

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